

BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990649A-TP

In the Matter of

INVESTIGATION INTO PRICING  
OF UNBUNDLED NETWORK  
ELEMENTS (BELLSOUTH TRACK).

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VOLUME 2

Pages 183 through 319

PROCEEDINGS:

HEARING

BEFORE:

CHAIRMAN LILA A. JABER  
COMMISSIONER J. TERRY DEASON  
COMMISSIONER MICHAEL A. PALECKI

DATE:

Monday, March 11, 2002

TIME:

Commenced at 9:35 a.m.

PLACE:

Betty Easley Conference Center  
Room 148  
4075 Esplanade Way  
Tallahassee, Florida

REPORTED BY:

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Official FPSC Reporter  
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APPEARANCES:

(As heretofore noted.)

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FLORIDA PUBLIC SERVICE COMMISSION

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## P R O C E E D I N G S

(Transcript follows in sequence from Volume 1.)

CHAIRMAN JABER: Let's get back on the record.

BellSouth, you were going to call Mr. -- is it Stegeman?

MR. SHORE: It's Mr. Stegeman, and he's on the stand.  
We're ready to proceed when you are, Madam Chair.

CHAIRMAN JABER: Go ahead.

MR. SHORE: Thank you.

JAMES W. STEGEMAN

was called as a witness on behalf of BellSouth  
Telecommunications, Inc., and, having been duly sworn,  
testified as follows:

## D I R E C T E X A M I N A T I O N

BY MR. SHORE:

Q Mr. Stegeman, can you state your full name for the  
record, please.

A James W. Stegeman.

Q And by whom are you employed and in what capacity,  
Mr. Stegeman?

A I am president of CostQuest Associates.

Q Have you caused to be prepared and prefiled in this  
docket 11 pages of direct testimony as well as 8 pages of  
surrebuttal testimony?

A Yes.

Q Do you have any corrections to make to your

1 testimony?

2 A No.

3 Q If I were to ask you today the same questions that  
4 appear in written form in your testimony, would your answers be  
5 the same as you've given there in your prefiled testimony?

6 A Yes, it would.

7 MR. SHORE: Madam Chair, I'd request to have  
8 Mr. Stegeman's testimony, both direct and surrebuttal, entered  
9 into the record.

10 CHAIRMAN JABER: The prefiled direct testimony of  
11 James Stegeman and the prefiled surrebuttal testimony of  
12 James Stegeman shall be inserted into the record as though  
13 read.

14 MR. SHORE: Thank you.

15 BY MR. SHORE:

16 Q Mr. Stegeman, do you have any exhibits to your  
17 testimony?

18 A Any additions? No.

19 Q No, excuse me. Any exhibits?

20 A Oh, exhibits, yes.

21 Q And can you identify those for the record, please.

22 A It is JWS-1, 12 pages long.

23 MR. SHORE: And, Madam Chair, if I can have that  
24 marked for identification purposes.

25 CHAIRMAN JABER: JWS-1 will be marked as Exhibit 46.

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MR. SHORE: Thank you.  
(Exhibit 46 marked for identification.)

1                                   **TESTIMONY OF MR. JAMES W. STEGEMAN**  
2                                   **ON BEHALF OF BELL SOUTH TELECOMMUNICATIONS, INC.**  
3                                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                                   **DOCKET NO. 990649A-TP**  
5                                   **NOVEMBER 8, 2001**

6  
7   **INTRODUCTION**

8  
9   **Q.    PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.**

10  
11   A.    My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am  
12          testifying on behalf of BellSouth Telecommunications (“BellSouth”, “BST” or the  
13          “Company”).

14  
15   **Q.    ARE YOU THE SAME JAMES STEGEMAN WHO PREVIOUSLY FILED**  
16          **TESTIMONY IN THIS PROCEEDING ON MAY 1 AND AUGUST 20, 2000?**

17  
18   A.    Yes, I am.

19  
20   **Q.    WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

21  
22   A.    My testimony describes the changes made to BSTLM to allow the model to develop  
23          structure-related costs using a “bottom-up” approach. In its previous cost filing, which  
24          was adopted by this Commission and used to establish UNE loop rates, BellSouth  
25          developed engineering, furnished, and installed costs outside of BSTLM using in-plant

1 loadings. The Commission, however, instructed BellSouth to re-file recurring loop costs  
2 that were based on BSTLM's development of material as well as installation and  
3 engineering of outside plant cable and structure costs.  
4

5 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

6  
7 A. The first section of my testimony introduces BSTLM-SC, an updated version of BSTLM,  
8 and sets forth the reason changes were made to BSTLM. The second section describes  
9 errors that have been discovered and corrected in BSTLM since the August 2000 Florida  
10 filing. The third section describes enhancements and modifications made to BSTLM  
11 since the August 2000 filing.  
12

13 **SECTION I: BSTLM-SC**

14 **Q. WHAT IS BSTLM-SC?**

15  
16 A. BSTLM-Structure Cost or BSTLM-SC is an updated version of BSTLM. This updated  
17 version includes a combination of new features, input table and logic changes, and error  
18 corrections made since BSTLM was last filed in Florida. The specific changes in  
19 BSTLM-SC are described in the Sections II and III. To differentiate this Structure Cost  
20 release from previously filed models, I will refer to the current application as BSTLM-SC  
21 and the previously filed application as BSTLM throughout this testimony.  
22

23 **Q. ARE THE CHANGES IN BSTLM-SC COVERED IN THE MODEL'S FILED**  
24 **DOCUMENTATION?**

25



1 A. Yes. Release notes were filed summarizing the changes made to BSTLM with the  
2 development of BSTLM-SC. In addition, BellSouth released an updated BSTLM-SC  
3 User's Guide, Model Methodology, and Online Help system.  
4

5 **Q. DO THE MODIFICATIONS MADE IN BSTLM-SC ALTER THE MATERIAL**  
6 **INVESTMENT RESULTS THAT HAVE BEEN PREVIOUSLY ADOPTED IN**  
7 **FLORIDA?**  
8

9 A. No. There should be no significant difference between the material investments  
10 produced by BSTLM and the material investment produced by BSTLM-SC, since none  
11 of the changes to the model are associated with calculations of material investment. The  
12 changes only impact internal processing (e.g., factors such as memory allocation or  
13 speed) and the calculation, accuracy, and consistency of the installation, engineering, and  
14 structure costs.  
15

16 **Q. DID YOU PREVIOUSLY TESTIFY THAT BSTLM COULD BE USED TO**  
17 **DEVELOP INSTALLATION, ENGINEERING, AND STRUCTURE COST? IF**  
18 **SO, WHY WERE MODEL CHANGES REQUIRED FOR THIS RE-FILING?**  
19

20 A. Yes, I have testified in a number of proceedings that BSTLM was designed to estimate  
21 both the material and related installation, engineering, and structure of the BellSouth  
22 network. Typically, this type of investment is referred to as Engineered, Furnished and  
23 Installed ("EF&I"). As BellSouth began to load the model with BellSouth specific  
24 inputs, however, the BSTLM development team noted inconsistencies in some input table  
25 layouts and BellSouth's actual data. The development team also noted that the model's

1 accuracy could be improved with a few modifications. Finally, the development team  
2 became aware of a few errors in the model that had been discovered since the previous  
3 filing.

4  
5 **SECTION II: CORRECTIONS**

6 **Q. CAN YOU BRIEFLY REVIEW THE PROCESSING STEPS OF BSTLM-SC?**

7  
8 A. Yes. BSTLM-SC, like BSTLM, relies upon four distinct processes. The first is the GIS  
9 (or Geographic Information System) Process, which performs clustering operations and  
10 “designs” the modeled network. The second is the Configuration Process, which  
11 “engineers” the modeled network. The third is the Investment Process, which calculates  
12 the necessary investment for the given modeled network. The fourth and final process is  
13 the Summary Process, which calculates service specific investment and generates key  
14 statistic report data.

15  
16 **Q. IN WHICH OF THESE MODEL PROCESSES WERE ERRORS DISCOVERED?**

17  
18 A. Errors were discovered in each of the four processes. However, as I indicated earlier,  
19 none of these errors had an impact on the material investment produced by BSTLM and  
20 approved by this Commission. In addition, the correction of these errors in BSTLM-SC  
21 does not alter the material investment produced when compared to the approved values  
22 produced by BSTLM.

23  
24 **Q. WHAT ADJUSTMENT WAS MADE TO THE GIS PROCESS IN BSTLM-SC?**

1 A. Given a rare combination of user inputs for clustering, customer locations, and road  
2 routing in a wire center, the BSTLM GIS Process could enter an infinite loop and not  
3 terminate properly when attempting to optimize upline distribution routing. The infinite  
4 loop was the consequence of a limited series of road configurations that resulted in  
5 multiple solutions with no solution being better (more optimal) than any other. While  
6 this problem has not yet been reported in Florida, BSTLM-SC contains a modification  
7 (released in those states where the error has been reported) to avoid this potential  
8 problem. Under BSTLM-SC, when this infinite loop occurs, optimization is stopped, the  
9 process is terminated properly, and a warning is posted into the application's log file  
10 noting the Carrier Service Area ("CSA") and wire center where the situation occurred.

11  
12 This fix does not impact BSTLM-SC's calculation of the approved material investments.  
13 Rather, the new approach simply selects one from a multiple number of optimal solutions  
14 to avoid the infinite looping between equivalent solutions.

15  
16 **Q. WHAT ADJUSTMENT WAS MADE TO THE CONFIGURATION PROCESS IN**  
17 **BSTLM-SC?**

18  
19 A. In the previously filed BSTLM, the Configuration Process improperly determined the  
20 type of terrain for some areas. Due to an error in logic, BSTLM never assigned water  
21 terrain to a network node when appropriate. BSTLM-SC corrects this. However,  
22 because the terrain inputs are only used in computing installation, engineering and  
23 structure investments, the terrain assignment had no impact on the original filing or on  
24 the ordered rates.

25

1 **Q. WHAT ADJUSTMENTS WERE MADE TO THE INVESTMENT PROCESS IN**  
2 **BSTLM-SC?**

3

4 A. The Investment Process required three minor adjustments which impacted Microsoft®  
5 Excel®'s ability to perform table lookup functions. To address these problems, the  
6 following changes were made in BSTLM-SC:

7 ■ The Excavation Activity column (A21 – A54) in the “StructureConduit Interim Calc”  
8 worksheet was modified to correct a lookup error by creating a consistent reference to  
9 match existing inputs.

10 ■ Cells B11-C11 in the StructureConduit worksheet were modified to correct a lookup  
11 error by creating a consistent reference to match existing inputs.

12 ■ Cells AC2-AC7 in the Media worksheet were modified to correct a reference to a  
13 non-existing table.

14 As with the other adjustments, none of these changes invalidated or impacted the original  
15 filing or the Commission ordered rates since the functions are only associated with  
16 installation, engineering, and structure investment development.

17

18 **Q. WHAT ADJUSTMENT WAS MADE TO THE SUMMARY PROCESS IN**  
19 **BSTLM-SC?**

20

21 A. While not necessarily an error, there was a memory allocation problem that would  
22 occasionally cause the Summary Process application to freeze. This problem was  
23 addressed by changing the memory allocation procedure and updating the third party  
24 storage DLLs (dynamic link libraries) used to create the intermediate database files in  
25 BSTLM-SC.

1 **SECTION III: MODIFICATIONS AND ENHANCEMENTS**

2 **Q. CAN YOU SUMMARIZE THE MODIFICATIONS AND ENHANCEMENTS**  
3 **MADE TO BSTLM-SC?**

4  
5 A. Yes. To support increased accuracy in installation, engineering, and structure investment  
6 calculations, the following modifications and enhancements were made in BSTLM-SC:

- 7     ▪ BSTLM-SC improved the determination of where Splice Points take place;
- 8     ▪ BSTLM-SC created a new input table to allow the user to control how structure costs  
9         along shared distribution and feeder routes are shared;
- 10    ▪ BSTLM-SC introduced Rate Zone reporting as a user convenience. (However, it is  
11         not used in this Florida filing since de-averaged rate zone results are developed  
12         outside BSTLM in BellSouth's Final Cost Summary application);
- 13    ▪ BSTLM-SC expanded the Contractor Excavation tables to allow user inputs by  
14         terrain type;
- 15    ▪ BSTLM-SC expanded the Material Loading table to allow inputs by Cost Component  
16         and specific loading factors for each Cost Component; and,
- 17    ▪ BSTLM-SC modified the structure sharing apportionment method between fiber and  
18         copper to be more in line with approved methods.

19  
20 **Q. CAN YOU DESCRIBE THE NEW SPLICING METHODOLOGY IN MORE**  
21 **DETAIL?**

22  
23 A. Yes. The previously filed BSTLM only put a splice at each "Junction Node" in the cable  
24 routing. A Junction Node is where a cable route splits into two directions (e.g., when a  
25 cable comes to a T-shaped road intersection and cable goes in both directions). The

1 splicing methodology in BSTLM-SC now allows the user to select a more realistic  
2 approach that reflects where cable splices would occur because it places a splice not only  
3 at Junction Nodes but also when there is a change along a route in cable size (commonly  
4 referred to as a taper point).

5  
6 By setting the newly added BSTLM-SC input value of *SplicingApproach* equal to  
7 *SpliceAtIntersection*, the user is instructing the model to use the previously filed BSTLM  
8 approach of splicing only at Junction Nodes. If the user sets *SplicingApproach* equal to  
9 *SpliceAtTaperPoint*, the model will place splices at both Junction Nodes and Taper  
10 Points.

11  
12 **Q. CAN YOU DESCRIBE THE FEEDER/DISTRIBUTION STRUCTURE SHARING**  
13 **ENHANCEMENT?**

14  
15 A. Yes. In a number of proceedings, one issue that has been raised is whether the results of  
16 loop modeling should reflect some amount of structure sharing between feeder and  
17 distribution cables on routes where both feeder and distribution cable are placed. In other  
18 words, if Feeder cable and Distribution cable share a common route, what is the  
19 likelihood that they will share the same outside plant structure (poles, conduit or  
20 trenches)?

21  
22 While BSTLM recorded which distribution and feeder routes were shared, the user had  
23 no control over what portions of the structure on the routes were to be shared. BSTLM-  
24 SC addresses this limitation through the newly added Facility Sharing table and  
25 corresponding changes to the Investment logic to use these inputs, which allows a user to

1 enter a structure sharing percentage between feeder and distribution plant within a given  
2 density zone.

3  
4 In BSTLM-SC, if a user enters a zero for the amount of structure sharing, the feeder and  
5 distribution cables will share the same structure on the same route 0% of the time.

6 Conversely, if the value is set to 1, the feeder and distribution cables will share the same  
7 structure when on the same route 100% of the time.

8  
9 **Q. PLEASE DESCRIBE THE RATE ZONE REPORTING FEATURE**  
10 **ENHANCEMENT.**

11  
12 A. BSTLM-SC added Rate Zone reporting to allow the user to report investment results at  
13 the Rate Zone (or deaveraged) level. To accomplish this, BSTLM-SC added a new user  
14 controlled Rate Zone table that links wire centers to a deaveraging zone. To access Rate  
15 Zone reports, a new Rate Zone grouping variable has been added to the report screen. For  
16 this filing, however, this new feature within BSTLM-SC was not used since de-averaged  
17 rate zone results are developed outside BSTLM in BellSouth's Final Cost Summary  
18 application

19  
20 **Q. PLEASE DESCRIBE THE EXPANSION OF THE CONTRACTOR**  
21 **EXCAVATION TABLES.**

22  
23 A. In BSTLM, the user was not able to input Contractor Excavation costs by terrain type.  
24 That is, if the cost for plowing in hard rock was different from the costs for normal  
25 terrain, the user had no easy way to input these differences. To correct for this input

1 deficiency, the Excavation Contract Labor table was split into two tables: one for buried  
2 and one for underground activities. In addition, within each table, input columns were  
3 added to allow potential differentiation in excavation costs by terrain type. Finally, the  
4 Investment logic was modified to utilize these inputs. Thus, in BSTLM-SC, users can  
5 now input excavation costs by plant and terrain type.

6  
7 **Q. PLEASE DESCRIBE THE ENHANCEMENT MADE TO THE MATERIAL**  
8 **LOADING TABLE IN BSTLM-SC.**

9  
10 A. Even with the expanded development of structure and installation costs within BSTLM-  
11 SC, there are still some costs that, as I understand, can only be accurately derived through  
12 the use of factors and/or loadings (e.g. taxes, miscellaneous materials, etc.). However,  
13 BSTLM had a fairly limited table for these factors and/or loadings. In addition, the input  
14 table in BSTLM did not allow the factors and/or loadings to be categorized by plant type.  
15 To allow the user to refine how these loadings are applied, BSTLM-SC contains an  
16 expanded Material Loading table along with corresponding Investment logic changes  
17 utilizing these inputs, which allows the user to input specific loading factors by plant  
18 type.

19  
20 **Q. PLEASE DESCRIBE THE NEW STRUCTURE COST APPORTIONMENT**  
21 **BETWEEN MEDIA TYPES IN BSTLM-SC.**

22  
23 A. In the situation where a fiber cable and a copper cable utilize the same structure, the  
24 model must apportion the structure investment to the fiber and copper cables that utilize  
25 this structure.



1 If BSTLM had been used in the original filing to develop total EF&I investments, the  
2 apportionment of structure costs between copper and fiber cables would have been based  
3 upon the values in the Media Sharing table. The Media Sharing table specified the  
4 percentage apportioned between the media types based upon the relative size of the  
5 copper cable.

6  
7 The approach was modified in the BSTLM-SC Investment logic so that when both fiber  
8 and copper media share the same structure, the structure costs are apportioned based upon  
9 the percentage of total DS0s carried on each media type. A DS0 apportionment  
10 methodology allows the structure cost apportionment to be consistent with the DS0 basis  
11 for apportioning digital loop carrier common equipment and fiber investment as ordered  
12 by the Commission (Page 132, ORDER NO. PSC-01-1181-FOF-TP).

13  
14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

15  
16 **A.** Yes it does.

17  
18 419820

1                   **SURREBUTTAL TESTIMONY OF MR. JAMES W. STEGEMAN**  
2                   **ON BEHALF OF BELL SOUTH TELECOMMUNICATIONS, INC.**  
3                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                   **DOCKET NO. 990649A-TP**  
5                   **DECEMBER 26, 2001**

6  
7  
8  
9   **Q.   PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.**

10  
11   A.   My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am  
12        testifying on behalf of BellSouth Telecommunications (“BellSouth”).

13  
14   **Q.   ARE YOU THE SAME JAMES STEGEMAN WHO PREVIOUSLY FILED**  
15        **TESTIMONY IN THIS PROCEEDING?**

16  
17   A.   Yes, I am.

18  
19   **Q.   WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

20  
21   A.   I address BSTLM issues raised in the rebuttal testimony of John C. Donovan and Brian F.  
22        Pitkin filed on behalf of AT&T Communications of the Southern States, Inc. (“AT&T”)  
23        and MCI WorldCom, Inc. (“MCI”) on December 10, 2001.

1 Q. ON PAGES 5 AND 6 OF MR. PITKIN'S REBUTTAL TESTIMONY, HE STATES  
 2 THAT THERE WAS AN ERROR INVOLVING THE CALCULATION OF EF&I  
 3 COSTS FOR FIBER CABLE. HAVE YOU BEEN ABLE TO VERIFY THIS?  
 4

5 A. Yes. First, let me take this chance to thank Mr. Pitkin for finding these formula errors.  
 6 While we made every effort to guarantee that the model as filed would be error free, there  
 7 is always a chance that in a complex model like the BSTLM an error will make it into the  
 8 filed version. I encourage all users of the model to point out any potential flaws so that  
 9 the model can be improved over time. In regard to these formula errors, it is important to  
 10 note that the impact on the filed BellSouth results is insignificant.  
 11

12 As for the specific Fiber Cable EF&I error, I was able to verify that Cells "AD5" through  
 13 "AD7" of the "3-Media" sheet in the "InvestLogic.XLS" file of the BSTLM were in  
 14 error. Instead of pointing to the fiber placing and splicing costs, the logic was pointing to  
 15 the copper placing and splicing costs. However, since Mr. Pitkin did not provide his  
 16 modified version of the InvestLogic.xls or the specific Cell code changes, I cannot verify  
 17 whether Mr. Pitkin provided the appropriate fix.  
 18

19 The filed version of Cells "AD5" through "AD7" read as follows (errors are bolded):

20 **Cell Logic Statement**

21 "AD5"  $N5 * \text{UndergroundFOLoading} + (N5 + N5 * \text{UndergroundFOLoading} +$

22  $\text{SUM}(\mathbf{AA2:AC2}) * \text{UndergroundFOEngLoad}$

23 "AD6"  $N6 * \text{UndergroundFOLoading} + (N6 + N6 * \text{UndergroundFOLoading} +$

24  $\text{SUM}(\mathbf{AA2:AC2}) * \text{UndergroundFOEngLoad}$

25 "AD7"  $N7 * \text{UndergroundFOLoading} + (N7 + N7 * \text{UndergroundFOLoading} +$

1                                   SUM(AA2:AC2))\*UndergroundFOEngLoad

2

3                   The corrected version of Cells “AD5” through “AD7” should read as follows (corrections  
4                   are bolded and italicized):

5                   **Cell    Logic Statement**

6                   “AD5” N5\*UndergroundFOLoading+(N5+N5\*UndergroundFOLoading+

7                                   SUM(*AA5:AC5*))\*UndergroundFOEngLoad

8                   “AD6” N6\*UndergroundFOLoading+(N6+N6\*UndergroundFOLoading+

9                                   SUM(*AA6:AC6*))\*UndergroundFOEngLoad

10                  “AD7” N7\*UndergroundFOLoading+(N7+N7\*UndergroundFOLoading+

11                                   SUM(*AA7:AC7*))\*UndergroundFOEngLoad

12

13   **Q.    IN REFERENCE TO THIS FIBER EFI REFERENCE ISSUE, DID THE ERROR**  
14   **HAVE A SIGNIFICANT IMPACT ON THE FILED BELLSOUTH RESULTS?**

15

16   A.    No. If we consider the results for an A.1.1 loop as indicative of the error’s impact, the  
17           total investment resulting from the BSTLM changes by less than 50 cents for a service  
18           that has a total BSTLM investment of almost \$1000. Thus, while an error was made in  
19           the investment logic of BSTLM, the impact of the error is negligible.

20

21   **Q.    ON PAGE 6 OF MR. PITKIN’S REBUTTAL TESTIMONY, HE STATES THAT**  
22   **THERE WAS AN ERROR REGARDING THE STUB CABLE INVESTMENT.**  
23   **HAVE YOU BEEN ABLE TO VERIFY THIS?**

24

25

1 A. No. This is not an error. Rather, it is a difference of opinion as to whether a stub cable is  
 2 required for underground placement. As I understand the modular splicing rules and as  
 3 BSTLM is subsequently coded, a stub and an additional splice are required to facilitate  
 4 CSA, DA, and AA administration.

5  
 6 **Q. ON PAGE 7 OF MR. PITKIN’S REBUTTAL TESTIMONY, HE STATES THAT**  
 7 **THERE WAS AN ERROR INVOLVING THE STRUCTURE SHARING**  
 8 **CALCULATION. HAVE YOU BEEN ABLE TO VERIFY THIS?**

9  
 10 A. Yes. Mr. Pitkin is correct in stating that Cells “I34” through “I41” in the  
 11 “StructureConduit Interim Calc” from the “InvestLogic.xls” file point to urban sharing  
 12 amounts instead of suburban sharing amounts and that Cells “I47” through “I54” point to  
 13 urban sharing amounts instead of rural sharing amounts. Mr. Pitkin is also correct in  
 14 stating that Cells “I22” through “I33” in the “StructureBuried Interim Calc” sheet from  
 15 the “InvestLogic.xls” file point to urban sharing amounts instead of suburban sharing  
 16 amounts and that Cells “I39” through “I50” point to urban sharing amounts instead of  
 17 rural sharing amounts. However, since Mr. Pitkin did not provide his modified version  
 18 of the InvestLogic.xls or the specific Cell code changes, I cannot verify whether Mr.  
 19 Pitkin provided the appropriate fix.

20  
 21 The referred to Cells of the filed version of the “InvestLogic.xls” file read as follows  
 22 (errors are bolded):

<u>Sheet</u>	<u>Cell</u>	<u>Logic Statement</u>
StructureConduit Interim Calc	“I34” – “I41”	VLOOKUP(\$Axx,SharingUnderground,2)  (where xx is the Cell Row)

1	StructureConduit Interim Calc	"I47" – "I54"	VLOOKUP(\$Axx,SharingUnderground,2)
2			<i>(where xx is the Cell Row)</i>
3	StructureBuried Interim Calc	"I22" – "I33"	VLOOKUP(\$Axx,SharingBuried,2)
4			<i>(where xx is the Cell Row)</i>
5	StructureBuried Interim Calc	"I39" – "I50"	VLOOKUP(\$Axx,SharingBuried,2)
6			<i>(where xx is the Cell Row)</i>

7

8 The corrected version of Cells of the filed version of the "Investlogic.xls" should read as  
9 follows (corrections are bolded and italicized):

10	<u>Sheet</u>	<u>Cell</u>	<u>Logic Statement</u>
11	StructureConduit Interim Calc	"I34" – "I41"	VLOOKUP(\$Axx,SharingUnderground,3)
12			<i>(where xx is the Cell Row)</i>
13	StructureConduit Interim Calc	"I47" – "I54"	VLOOKUP(\$Axx,SharingUnderground,4)
14			<i>(where xx is the Cell Row)</i>
15	StructureBuried Interim Calc	"I22" – "I33"	VLOOKUP(\$Axx,SharingBuried,3)
16			<i>(where xx is the Cell Row)</i>
17	StructureBuried Interim Calc	"I39" – "I50"	VLOOKUP(\$Axx,SharingBuried,4)
18			<i>(where xx is the Cell Row)</i>

19

20 **R. IN REFERENCE TO THE STRUCTURE SHARING ISSUE, DID THE ERROR**  
21 **HAVE AN IMPACT ON THE FILED BELL SOUTH RESULTS?**

22

23 B. No. BellSouth's inputs for Underground and Buried sharing did not vary by Urban,  
24 Suburban, or Rural. Therefore, the value of the lookup returned would have been correct  
25 for the specific activity.

1 Q. ON PAGE 57 OF MR. DONOVAN'S REBUTTAL TESTIMONY, HE INDICATES  
2 THAT HE IS CONCERNED ABOUT METHODOLOGY BELLSOUTH  
3 PROVIDED TO DETERMINE AVERAGE DISTANCE BETWEEN SPLICES  
4 FOR FIBER AND COPPER CABLE. BASED ON THE CURRENT BELLSOUTH  
5 METHODS, HE IS CALCULATING "ABSURDLY SHORT" DISTANCES. IS  
6 THERE A PROBLEM IN THE MODEL OR IN THE SUPPLEMENTAL  
7 METHODOLOGY THAT BELLSOUTH PROVIDED?  
8

9 A. The BSTLM determines splices appropriately as spelled out in the model's  
10 documentation. However, the methodology that BellSouth provided to calculate the  
11 average splice distance outside of the model was in error. Inadvertently, BellSouth using  
12 my input, instructed user's to count network element records in the "Config" file (for  
13 each wire center) that contained a "B" as both a fiber and copper splice. Yet, some of  
14 these records only contained either fiber or copper "Media". In Exhibit JWS-1, I am  
15 attaching an updated methodology that instructs the user to refer to the "Media" field  
16 when the "SpliceRequired" field contains a "B". If the "Media" field contains "CU" then  
17 the record contains only a copper splice and should only be counted in the total copper  
18 splices. If the "Media" field contains "FO", then the record contains only a fiber splice  
19 and should only be counted in the total fiber splices. If the "Media" field contains  
20 "BOTH" then the record contains a copper and fiber splice and should be counted in both  
21 the total copper splices and total fiber splices.  
22

23 I apologize for the methodology error. With the correction, the distance between splices  
24 for both copper and fiber cable appear to be within more reasonable ranges based upon a  
25 spot check of a few wire centers.

1 **Q. MR. DONOVAN CLAIMS ON PAGES 30-32 THAT THE MANHOLE COST**  
2 **DEVELOPMENT IS FLAWED. CAN YOU RESPOND FROM A MODELING**  
3 **STANDPOINT?**

4  
5 A. Yes. Part of his argument is based upon a misunderstanding of the input structure. He  
6 states on page 31 that Type-1, Type-2 and Type-3 manholes should be identical. This is  
7 incorrect. The Type-1, Type-2, and Type-3 are really an indication of the size of the  
8 manholes in relation to the number of conduits they support. Mr. Donovan mistakenly  
9 took the column title "Type or Size" and assumed the values were "Types", when in fact  
10 they were "Sizes". Thus, a Type-1 is really a Size-1 and supports 1 conduit (in reality it  
11 is the same as the Size 2 manhole and supports 1 or 2 conduits). A Type 2 is really Size-  
12 2 and supports 2 conduits (in reality it is the same as the Size 1 manhole and supports 1  
13 or 2 conduits). A Type 3 is really a Size 3 and supports 3 or 4 conduits. Based on the  
14 fact that these manholes are different, BellSouth appropriately determined the cubic feet  
15 of each size manhole based on the size and capacity of each. Part of Mr. Donovan's  
16 faulty assumption may be based upon a mistake made in the Description values in the  
17 Underground Contract Labor table inputs and in the Item and Description values in the  
18 Underground Material table inputs. Apparently, the description of the Size 3 manhole  
19 was inadvertently copied to the Size 2 and Size 1 manholes in the Underground Contract  
20 Labor table inputs and similarly for the Description and Item in the Underground  
21 Material table inputs.

22  
23 **Q. MR. DONOVAN CLAIMS ON PAGES 38 AND 39 THAT BELL SOUTH'S 500**  
24 **FOOT INTERVALS FOR GUYS AND ANCHORS ARE INAPPROPRIATE IN**



1           **PART BASED ON A REFERENCE TO THE BSTLM METHODOLOGY. IS THE**  
2           **REFERENCE TO BSTLM METHODOLOGY CORRECT?**

3  
4    A.    No. At best, his reference to the BSTLM methodology is confusing. The methodology  
5           clearly states that the model assumes 1200 feet as the average length of an aerial span so  
6           that it can calculate the per foot costs while properly accounting for the number of poles.  
7           Each span must have a pole at both ends. For example, if you have a span of 240 feet,  
8           the number of poles required is 3 (assuming an spacing of 120 feet between poles). To  
9           account for the end poles you cannot simply divide the span length by the spacing value  
10          (240ft / 120ft = 2).

11  
12          To capture this last pole on a run and to develop the per foot pole costs which includes  
13          the associated guy and anchor costs, an assumption was made on the typical span length.  
14          However, this typical span length has nothing to do with the proper distance between  
15          guys and anchors placement. Therefore, the reference to the BSTLM Methodology does  
16          not support his argument.

17  
18    **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

19  
20    A.    Yes it does.

1 BY MR. SHORE:

2 Q Mr. Stegeman, have you prepared a summary of your  
3 testimony?

4 A Yes, I have.

5 Q Would you give that now, please.

6 A Yes, I can. Good afternoon. In the previous hearing  
7 I introduced BSTLM as the next generation loop model that uses  
8 more actual BellSouth data than any loop model before it. It  
9 uses the actual customer locations and the services provisioned  
10 to each location, the BellSouth wire center locations, the  
11 BellSouth wire center boundaries, the roads within BellSouth's  
12 territory, the engineering parameters currently in use by  
13 BellSouth, and up-to-date BellSouth material inputs. All  
14 parties and the Commission agree that it was appropriate to use  
15 BSTLM to calculate the forward-looking cost of UNE loops and  
16 related elements.

17 In its previous cost filing, BellSouth developed the  
18 engineering, furnished, and installed costs of placing outside  
19 plant outside of BSTLM using in-plant loading factors. The  
20 Commission then established UNE loop rates based from results  
21 based on these loading factors. In this phase of the UNE  
22 docket, the Commission asked BellSouth to use BSTLM to not only  
23 develop the material costs but also the cost of installation  
24 and engineering of the outside plant and related structures so  
25 that it can compare the cost generated using each approach to

1 developing EF&I costs.

2           It is important to understand that the accuracy of  
3 BSTLM is sound and is not impacted by the use of bottom-up  
4 approach vis-a-vis the use of in-plant loading factors. In  
5 order to accommodate an accurate bottom-up development of the  
6 total loop cost, BellSouth developed and filed BSTLM-Structure  
7 Cost or what we refer to as BSTLM-SC in this proceeding. This  
8 updated version includes a combination of new features and  
9 input and logic changes. There is no significant differences  
10 between the material investment produced by the BSTLM and the  
11 material investment produced by BSTLM-SC since none of the  
12 changes to the model are associated with calculations of a  
13 material investment. The changes only impact internal  
14 processing such as memory allocation and speed and the  
15 calculation accuracy and consistency of installation,  
16 engineering, and structure costs.

17           The improvements in BSTLM-SC included improving a  
18 determination of where splice points take place, allowing the  
19 user to control how structure costs along shared distribution  
20 and feeder routes are shared, introducing rate zone reporting  
21 as a user convenience, expanding the contractor excavation  
22 tables to allow user inputs by terrain type, expanding the  
23 material loading for improved accuracy, and modification of the  
24 structure sharing apportionment method between fiber and copper  
25 to be more in line with the approved methods.

1           In my surrebuttal testimony, I addressed BSTLM issues  
2 raised in the rebuttal testimony of John C. Donovan and Brian  
3 F. Pitkin. As Mr. Pitkin pointed out, there were two errors in  
4 the investment logic calculations. The first affected the  
5 calculation of EF&I costs for fiber cable. The second was an  
6 incorrect reference in the structure sharing calculation for  
7 buried and underground structure. BellSouth has filed an  
8 updated investment logic file to correct these errors and has  
9 used it in its amended cost study to calculate its cost.

10           It is important to note that the impact of these  
11 errors is insignificant for most of the BellSouth filed  
12 results. For example, the errors resulted in a change of  
13 investment of under 50 cents out of a total investment of \$1000  
14 for a two-wire voice grade loop element A.1.1. Mr. Donovan's  
15 concern whether BSTLM was placed in an appropriate number of  
16 splices arose from a misspecification in a manual process that  
17 BellSouth provided to determine the average splicing distance.

18           As part of my surrebuttal, I supplied the corrected  
19 manual methodology. Using this corrected manual methodology,  
20 BellSouth spot-checked three wire centers. The distance  
21 between splice points from these wire centers are now in a  
22 reasonable range. This correction and the result should dispel  
23 any notion that the BSTLM splicing methodology is not  
24 reasonable.

25           As for Mr. Donovan's argument on the proper inputs

1 for manhole sizing, it is in part based upon faulty  
2 descriptions in BSTLM. He states on Page 31 of his testimony  
3 that Type 1, Type 2, and Type 3 manholes should be identical.  
4 This seems to be based in part on the descriptions provided in  
5 the model. Inadvertently, the description for Size 3 manhole  
6 was copied to the Size 1 and Size 2. With this incorrect  
7 description, it is easy to understand how a user would assume  
8 that the same size manhole should then be used for all three  
9 inputs. However, the descriptions were wrong and should have  
10 specified the manholes are different in capacity. I have  
11 corrected the descriptions for the manhole inputs in a  
12 late-filed exhibit to this proceeding. With these corrected  
13 descriptions, it is clear that the various manhole sizes are  
14 indeed different and support BellSouth's filed inputs.

15           Finally, Mr. Donovan made an incorrect reference to  
16 BSTLM documentation to support his argument regarding anchor  
17 and guys spacing. He referred to the average aerial span  
18 distance of 1200 feet that is used in the model and incorrectly  
19 assumed that this was related to the distance between guys and  
20 anchors. This distance has nothing to do with the guy and  
21 anchor spacing. Rather, the 1200-foot value is used to account  
22 for the total number of poles, including the end pole, on a  
23 typical aerial span length; that is, if you have a 1200-foot  
24 span with 150-foot spacing between poles, you need 9 poles, not  
25 8, if you simply divide 1200 by 150.

1 By using that 1200-foot assumed length, we are able  
2 to account for the end poles; therefore, Mr. Donovan's  
3 reference to BSTLM methodology was incorrect and does not  
4 support his argument for the distance between anchors and guys.  
5 Thank you, and that concludes my summary.

6 MR. SHORE: This witness is available for cross,  
7 Madam Chair.

8 CHAIRMAN JABER: Mr. Hatch.

9 CROSS EXAMINATION

10 BY MR. HATCH:

11 Q Good afternoon, Mr. Stegeman. My name is  
12 Tracy Hatch. I'll be asking you a few questions on behalf of  
13 AT&T and WorldCom. You are the person that's responsible for  
14 running the BSTLM, the model, in this proceeding; is that  
15 correct?

16 A Can you ask that again? I didn't hear that.

17 Q You are the person that is responsible for running  
18 the BSTLM in this proceeding; is that correct?

19 A No, I do not run the model. I am the firm that  
20 designed the model. The actual running of the model and  
21 population of the inputs is then up to BellSouth.

22 Q So you don't actually run the model or deal with any  
23 of the inputs or anything like that?

24 A No.

25 Q Okay. You are not an employee of BellSouth, are you?

1 A No, I am not.

2 Q Let's talk about the model for a moment. To  
3 calculate the engineering cost in the BSTLM, does the model add  
4 material, material loading, and labor and then apply an  
5 engineering loading factor? Is that how the model works?

6 A Can you restate that again? I just want to make sure  
7 I follow it.

8 Q Sure. In calculating engineering cost in terms of  
9 how the model actually works, does it add up material, material  
10 loading, and then labor, and then after that applies an  
11 engineering loading factor?

12 A Yes, that is correct how the model works.

13 Q Now, would you agree with me that previously the  
14 Commission has found that the application of inflation factors  
15 to both the investment and to labor rates is appropriate?

16 A I can't answer that. I'm not aware of the inflation  
17 factor use.

18 Q Let's talk about it this way then. In this phase,  
19 the inflation factors in the BSTLM-SC are applied only to  
20 material investments; is that correct?

21 A You'd have to refer that probably to Daonne Caldwell.  
22 That is an input issue. There is not a -- there is an  
23 inflation value in the model as a factor, and it is populated  
24 by then BellSouth.

25 Q Does the BSTLM apply inflation to contract labor

1 rates in the model?

2 A I don't know right offhand.

3 Q Do you know if the model applies inflation to  
4 splicing and placing?

5 A The way the factors work in the model is, all the  
6 factors are applied either against investment, be it material;  
7 or with the engineering factor, it's the material, material  
8 loading, and labor. So if there is an inflation input in the  
9 model, it would be then applied to the material component, as I  
10 recall, that most of the factors are applied just to material;  
11 that engineering is the only one, I think, that's applied  
12 against labor.

13 Q Do you know whether in the model that the labor rates  
14 for splicing and placing are already inflated to current levels  
15 or is the inflation level applied to that?

16 A I do not know.

17 Q Switching gears a little bit, still talking about the  
18 model, however. In the BSTLM that's been filed in this  
19 proceeding, does the model use the same approach to developing  
20 digital loop carrier investment as it did in the previous  
21 iterations in this proceeding -- or in the docket in this case?

22 A Yes. The DLC calculations were not modified in the  
23 SC version. The SC version was only the development of outside  
24 plant related structure cost and engineering and installation.

25 Q So the bottoms-up approach that was used for this



1 proceeding was not used for DLC investment?

2 A DLC was not modified as far as the model standpoint.  
3 I don't know about the input. You would have to ask Daonne.

4 Q So if the model still runs essentially for DLC  
5 investment the way it did previously, then that would mean that  
6 the DLC investment still relies on loading factors used in the  
7 cost calculator; is that correct?

8 MR. SHORE: Madam Chair, I'm going to object. If he  
9 wants to ask him that question as a hypothetical, I guess it's  
10 okay, but Mr. Stegeman has testified he's not the witness with  
11 respect to the inputs into the model. He designed the model.  
12 And we have a witness who's going to be here to talk about what  
13 the inputs are into the model. She's next up.

14 CHAIRMAN JABER: Mr. Hatch.

15 MR. HATCH: Madam Chairman, he just testified, as I  
16 recall, that the current version of the model did not use the  
17 bottoms-up approach developed for this specific proceeding with  
18 respect to the DLC investment, so the model operates like it  
19 used to. And I was just trying to confirm that the model  
20 operate like it used it to -- like it used to in the last  
21 proceeding -- sorry about that -- in terms of how you get the  
22 investment. And in the other proceeding, it was that issue for  
23 the Commission was linear loading factors, and I just wanted to  
24 confirm that for DLC investment here, those same linear loading  
25 factors are used and applied to developing --

1 CHAIRMAN JABER: I'll allow the question.

2 Mr. Hatch, you really need to bring the microphone  
3 right to you, especially when you look down.

4 MR. HATCH: Will do.

5 CHAIRMAN JABER: Thank you. And also, to the degree  
6 you ask hypothetical questions, although I don't think this  
7 meets the definition of hypothetical, but, you know, preface  
8 your question with that.

9 MR. HATCH: Yes, ma'am.

10 A Let me try and answer that the best way I can. The  
11 difference between BSTLM and BSTLM-SC was there is some  
12 additional modifications made to allow the user input tables to  
13 try and reflect BellSouth inputs. The model BSTLM-SC that was  
14 filed in the last proceeding was in itself capable of  
15 developing bottoms-up investments if given the proper inputs.  
16 In that proceeding, the inputs weren't provided. All the  
17 inputs were provided as in-plant factor loadings. So in  
18 effect, the prior model could have been used.

19 For the BSTLM-SC model there were, as I said,  
20 modifications made, but there were no modifications made to the  
21 DLC logic. So again, it's back to whether BellSouth provided  
22 inputs, and I can't attest to whether they changed the DLC  
23 inputs to develop the DLC from a bottoms-up basis or from an  
24 in-plant loading factor basis.

25 Q Turning to stub cable for a moment. I believe there

1 was a change made to this iteration of the model in this  
2 proceeding that changed the way splices were placed; is that  
3 correct?

4 A Yes. There was a change in the model for this  
5 proceeding in that splices are placed at now both a junction  
6 point, which is where multiple cables come together, and where  
7 there is a tapering or a change in cable size. The change in  
8 cable size requires a splice to take place to connect the two  
9 cables together. That was not in the prior model. That's the  
10 logic we added in was to capture the latter, being the change  
11 in cable size splicing.

12 Q And as I understand one of those changes, at the  
13 junction point the splice treated it as a "T", is that correct,  
14 where you had a cable and it split off in two directions, and  
15 you characterized that as a "T"?

16 A Typically in the documentation -- or I think mainly  
17 in the documentation we refer to as a "T," but it is a junction  
18 where multiple cables come together. It can be three cables  
19 coming together, four cables, however it is. You can imagine  
20 the network that's built is like a tree, and if you start out,  
21 the leaves of the tree, the leaves are connected to smaller  
22 branches which connect to bigger branches. We're bringing that  
23 back and there's multiple branches coming together at a node,  
24 and that's what the junction point is, where all those branches  
25 come together at one point.

1 Q If you have an "X" intersection, how many splices  
2 would you have under that scenario?

3 A If you have an "X" intersection, it could range  
4 anywhere's from no splices because the "X" intersection, the  
5 cables actually are just crossing paths, in effect, that there  
6 is no need for a splice point at that point.

7 To the point where you actually have the parent cable  
8 or the -- if you think of the tree again, the bigger branch  
9 with the three smaller branches coming in, those three smaller  
10 branches coming in feeding the big branch at that "X"  
11 intersection, there will be splices for each of the three  
12 cables coming into that bigger cable going back into the  
13 network.

14 Q Assuming it's the scenario you last characterized,  
15 you've got the main trunk of the tree coming here and it splits  
16 off in three directions, how many splices would the model give  
17 us?

18 A It depends on the cable size that you have there.  
19 For example, if the bigger portion going back to the CO is a  
20 400-pair cable and you have, for example, a 200-pair cable,  
21 100-pair cable, and a 50-pair cable coming into that point, you  
22 would look at the sizes of the cables coming to the point, not  
23 at the bigger -- the parent cable going back which was the  
24 400-pair cable, you look at the sum of the 200, the 100, and 50  
25 which is 350. And there would be 350 splices made for those

1 cable connections.

2 Q I probably asked the question the wrong way. I  
3 didn't mean how many individual wires would be spliced.

4 A 350.

5 Q Right. How many spliced cases would there be to  
6 handle the three different directions that cable takes off from  
7 a common point?

8 A I'm not sure the model necessarily looks at spliced  
9 cases. It looks at how many times a splicing would occur, and  
10 my recollection, it would be three splicings.

11 Q Does the model treat that kind of a scenario, this  
12 crossing where you've got three different going -- would that  
13 treat that junction as a double "T"? Is it treated as two Ts,  
14 essentially?

15 A I'm not sure that I -- no, it wouldn't treat it as  
16 double Ts. What it would treat it as is that "X" intersection  
17 that you're talking about, there is just the one cable coming  
18 out. So it's three -- instead of thinking of it as a "T," it's  
19 more of just a crossroad, and the three cables are coming back  
20 to that single cable, and there's a splice made to connect to  
21 that single cable going back to the network. So I'm not sure  
22 the "T" -- the "T" is more the example when there's two cables  
23 coming back to join one cable and it looks like a "T" because  
24 you're at kind of a crossroad. The road forks off two  
25 different ways.

1 Q I'm not sure I understand your response. Could you  
2 explain it to me again?

3 CHAIRMAN JABER: I think -- Mr. Hatch, I think we've  
4 had several questions go back and forth. So ask your question  
5 as precisely as possible. I always use myself as a guide. I  
6 didn't understand the last question you asked, so --

7 MR. HATCH: I may go back to that. Let me ask a  
8 different question. It may get me where I need to go.

9 CHAIRMAN JABER: Uh-huh.

10 BY MR. HATCH:

11 Q If in the scenario we're talking about you've got one  
12 trunk and it goes off in three directions, there would be  
13 essentially -- would the model -- as I understand what you said  
14 earlier, the model would create three separate cable splices.  
15 Is that a fair characterization?

16 A Yes. There would be three separate cable splices  
17 because of the three cables coming into the one. So each cable  
18 would be spliced separately.

19 Q Now, if the model -- or does the model create -- or  
20 have an input for setup for each splice?

21 A There is a table in the model that has both setup  
22 broken out from -- its setup enclosure is one input in a table,  
23 and then there's spliced time per hundred pairs of copper  
24 cable.

25 Q So in the scenario we're talking about where you've

1 got the three branches, the model would calculate three setups;  
2 is that correct?

3 A Let me think. Yes, I believe it would.

4 Q When in fact when you splice that cable for three  
5 different branches, you're really only setting up one time to  
6 splice those three cables?

7 A I really don't know if it's one time or three times  
8 because the three different cables are coming in. If they're  
9 all placed at the same time, quite possibly, yes. If not, then  
10 it may be three different installation -- or three different  
11 spliced events.

12 Q Does the model include stub cable splicing costs at  
13 every underground splice location?

14 A As the model is coded and has been coded, there is a  
15 stub cable for every underground splicing and that is in the  
16 model to account for customer access or access to that splice  
17 point to connect up customers.

18 Q When you say "customer access," what do you mean by  
19 customer?

20 A Typically a splice point either occurs at an  
21 intersection but more likely with the later logic is at a taper  
22 point. A taper point is where the cable is reduced in size.  
23 The taper point always -- or the majority of time will occur  
24 when there is a piece of plant such as a distribution terminal,  
25 a building terminal, a feeder distribution interface at which

1 point there is access then to the customer. Drops run off of  
2 the distribution terminal to go up to the customer's location.  
3 It's more efficient from my understanding talking with the  
4 engineers to run those drops and access that equipment from  
5 above the ground rather than down in the manhole where the  
6 splice might be down the manhole, and that is why the stub  
7 cable is brought above ground so that you can access it to run  
8 those drops off then to the customer locations.

9 Q I think you may have answered this before, but I want  
10 to make sure that I get it down. The BSTLM has the capability  
11 to separate out and have a separate input for splicing in terms  
12 of the wire work and a separate input for setup and closure; is  
13 that correct?

14 A Yes. Yes, it is.

15 Q In the current iteration of the model that's in this  
16 proceeding today, do you know whether those inputs were used in  
17 the model?

18 A I know the table is used, but you'd have to ask  
19 Daonne about the specific inputs and how the table was used.

20 Q Ms. McNulty is going to hand you what was previously  
21 identified as Exhibit 43. If you'll take a look at that.

22 A Okay.

23 Q You may not be the person to ask this, but if you  
24 are, then please say so.

25 Now, just as sort of a caution, if you'll look at



1 Line 2 under the rate column, that first number you see there,  
2 that's a proprietary number. So I'm going to try not to  
3 suggest anything that will reveal that, so I want to make sure  
4 that you know what that is.

5 A Okay.

6 Q Now, that number in the rate column is what is  
7 currently in the model for the time spent for splicing and  
8 placing of 100 pairs; is that correct? Or do you know?

9 A I can't attest to that. You'd have to ask Daonne.

10 CHAIRMAN JABER: BellSouth, I hope Ms. Caldwell can  
11 answer this question.

12 MR. SHORE: I anticipate that she can.

13 CHAIRMAN JABER: Thank you.

14 MR. HATCH: I believe that's all. Let me check my  
15 notes. That's all I've got. Thank you.

16 CHAIRMAN JABER: Mr. Feil.

17 MR. FEIL: No questions.

18 MR. McGLOTHLIN: No questions.

19 MR. GROSS: No questions.

20 CHAIRMAN JABER: Staff.

21 MR. KNIGHT: I've just got a couple short questions.

22 CROSS EXAMINATION

23 BY MR. KNIGHT:

24 Q Mr. Stegeman, is it your testimony that the BSTLM-SC  
25 is capable of modeling the UNE loop costs utilizing the

1 bottoms-up approach which is in compliance with the  
2 Commission's prior orders in this docket?

3 A Yes, it is.

4 Q Are you familiar with the prior testimony -- I think  
5 I'm --

6 CHAIRMAN JABER: Yeah, Mr. Knight, we've been having  
7 trouble with the microphones. Try to -- actually, I think they  
8 all just died, didn't they? Try Ms. Keating's.

9 Q Are you familiar -- no. It's not -- yeah, all out.

10 CHAIRMAN JABER: All right. Let's take a five-minute  
11 break.

12 MR. KNIGHT: I think we're back.

13 CHAIRMAN JABER: See. Go ahead, Mr. Knight.

14 MR. KNIGHT: Okay.

15 BY MR. KNIGHT:

16 Q Are you familiar with the testimony of Ms. Caldwell  
17 in this phase of the proceeding?

18 A I don't know it word for word, but I have -- I've  
19 read it.

20 Q Okay. Are you familiar with the revisions BellSouth  
21 has made to certain model inputs such as the engineering  
22 factors in manhole costs, for example?

23 A I am aware of the changes they made, but I don't know  
24 what the values that they have used in the model.

25 Q Okay. To the extent that you are aware of them, in

1 your opinion, are those revisions due to flaws in the loop  
2 model?

3 A I'm sorry, can you, I guess, clarify what you mean by  
4 "revisions"? The revisions in the model?

5 Q Right.

6 A The revisions that we had made to the model were  
7 tracked to more reflect how BellSouth could collect the data.  
8 So that's why I was aware of how they pulled the data together  
9 because I had to be aware of, for example, on the contractor  
10 tables, how those contractor tables would need to flow into the  
11 model. And in looking at those inputs, we recognized that  
12 there may be some places where the input table layout of the  
13 prior version did not necessarily provide all the flexibility  
14 that BellSouth needed to provide those inputs. So we made  
15 modifications so that BellSouth could provide those inputs in  
16 the SC version.

17 Q Okay. So there were changes in the data provided or  
18 in the way the data was calculated?

19 A In the prior version that data was not used because  
20 it was all done in the in-plant factors, as I understand. So  
21 the data was never input into the model. Like the contract  
22 labor rates or any of that type information was not in the  
23 model prior. So when they started loading that data for this  
24 proceeding, we recognized that some of their inputs would not  
25 necessarily flow into the model very well, so we made changes

1 then.

2 MR. KNIGHT: Okay. I think that's all I have.

3 CHAIRMAN JABER: Mr. Shore, one of the other  
4 questions that Mr. Hatch pursued related to the line card costs  
5 and whether some of those costs were already incorporated into  
6 the DLC.

7 MR. SHORE: Yes, ma'am.

8 CHAIRMAN JABER: Is that -- are those questions  
9 appropriate for this witness or the next one?

10 MR. SHORE: I think Ms. Caldwell can address those.

11 CHAIRMAN JABER: Thank you. Okay. Mr. Hatch, if  
12 you'll ask those questions of Ms. Caldwell, that's information  
13 I would find useful.

14 MR. HATCH: If I'd a thought he could have answered  
15 them, I would have.

16 THE WITNESS: Well, I can -- if I can just volunteer  
17 up, that I do know the model does allow the user to input  
18 plug-in cards. There is a table for plug-in cards. That is  
19 there and available, and if the plug-in card is entered in the  
20 table, then it will be used in the calculations.

21 CHAIRMAN JABER: What does that mean related to the  
22 DLC costs? You wouldn't be able to testify as to whether the  
23 costs are recovered from both elements, would you?

24 THE WITNESS: No, I would not, but I could tell you  
25 that the plug-in card if input, in which Daonne can attest to,

1 if input will flow through the model and come of the BSTLM  
2 results.

3 CHAIRMAN JABER: Thank you. Commissioners, do you  
4 have any questions?

5 Thank you, sir. Redirect.

6 MR. SHORE: No redirect, but if I could move  
7 Mr. Stegeman's exhibit into the record as the next numbered  
8 hearing exhibit, please.

9 CHAIRMAN JABER: Sure. That's Exhibit 46, and it's  
10 admitted into the record without objection.

11 (Exhibit 46 admitted into the record.)

12 CHAIRMAN JABER: Thank you, Mr. Stegeman.

13 THE WITNESS: Thank you.

14 (Witness excused.)

15 MR. SHORE: BellSouth would call Daonne Caldwell as  
16 its witness.

17 MR. McGLOTHLIN: Chairman Jaber, I would like to let  
18 you know that Dr. Ford is in the room. Whenever it's  
19 appropriate, we can call him.

20 CHAIRMAN JABER: Okay. Thank you. I think,  
21 Mr. McGlothlin, a good place for Dr. Ford's testimony would be  
22 after Mr. Williams' testimony. It seems like a natural  
23 breaking point. Thank you.

24 D. DAONNE CALDWELL  
25 was called as a witness on behalf of BellSouth

1 Telecommunications, Inc., and, having been duly sworn,  
2 testified as follows:

3 DIRECT EXAMINATION

4 BY MR. SHORE:

5 Q Ms. Caldwell, were you sworn this morning with the  
6 group of witnesses?

7 A Yes, I was.

8 Q Can you state your full name for the record, please.

9 A My name is Doris Daonne Caldwell.

10 Q And by whom are you employed, Ms. Caldwell, and in  
11 what capacity?

12 A BellSouth Telecommunications. I'm a director in the  
13 finance department.

14 Q Have you caused to be prepared and prefiled in this  
15 docket, Ms. Caldwell, 31 pages of amended direct testimony as  
16 well as 30 pages of amended surrebuttal testimony?

17 A Yes, I have.

18 Q Do you have any corrections substantively to make to  
19 that testimony?

20 A I do not.

21 Q If I were to ask you the same questions today that  
22 appear in your amended direct testimony and your amended  
23 surrebuttal testimony, would your answers be the same?

24 A Yes, they would.

25 MR. SHORE: Madam Chair, we move at this time for the

1 admission of Ms. Caldwell's direct and surrebuttal testimony  
2 into the record as if read.

3 CHAIRMAN JABER: Yes. The prefiled amended direct  
4 and amended surrebuttal testimony of Ms. Caldwell shall be  
5 inserted into the record as though read.

6 MR. FEIL: Madam Chair, if I may ask. I'm sorry,  
7 Mr. Shore. For clarity, this was the amendments -- or the  
8 amendments dated January 28th, 2002?

9 MR. SHORE: Yes, the amended, exactly, in both cases.

10 MR. FEIL: Okay. Thank you.

11 CHAIRMAN JABER: Exhibits.

12 BY MR. SHORE:

13 Q Ms. Caldwell, have you caused to be prepared and  
14 filed along with your testimony in this docket a revised  
15 Exhibit DDC-1?

16 A Yes.

17 Q And for the record, that's the revised exhibit that  
18 was revised on January 28th this year?

19 A Correct.

20 Q Have you also caused to be prepared and filed Exhibit  
21 DDC-2?

22 A Yes.

23 Q Okay. Have you caused and prepared to be filed in  
24 this docket a revised Exhibit DDC-3?

25 A Correct.

1 Q Do you have any corrections to that Exhibit DDC-3?

2 A Yes, I do.

3 CHAIRMAN JABER: Excuse me. Let's do it this way.

4 DDC-1 and DDC-2 are identified as Exhibit 47.

5 (Exhibit 47 marked for identification.)

6 CHAIRMAN JABER: Go ahead, Mr. Shore.

7 BY MR. SHORE:

8 Q Ms. Caldwell, could you tell us about the correction  
9 to revised Exhibit DDC-3, please.

10 A Yes. In Exhibit DDC-3 on Page 4 there were several  
11 numbers left off. The number is actually on the disk that's  
12 filed with the cost study, you're correct. It was just this  
13 exhibit. So if I could, I'd like to add those.

14 If you look again, that is Page 4 of 17. If you look  
15 at Element A20.DS1 and under that you will see A20.2, the  
16 hybrid copper/fiber DS1 per DS1. Associated with that, you  
17 will see the Number 19.55. I need to add to that number as  
18 just to show that it will be added, \$133.77. So the total  
19 under that column would be 153.32.

20 Q Is that the only correction?

21 A I've got a couple more of that type. Okay. Next to  
22 that you see where it has the \$14.66? I need to add to that  
23 \$78.82 for a total of 92.08.

24 Beside that you will see \$7.69. I need to add to  
25 that 85.16 for a total of 92.85. And then 5.77, we need to add



1 to that 21.21 for a total of \$26.98. And those are all the  
2 changes. And again, let me say that the cost study summary is  
3 correct, it does have those numbers on it.

4 Q Thank you, Ms. Caldwell. Have you also caused to be  
5 prepared and filed in this docket along with your surrebuttal  
6 testimony Exhibits DDC-4 and DDC-5?

7 A Yes, I did.

8 MR. SHORE: Madam Chair, if we could have revised  
9 Exhibit DDC-3 as well as Exhibits DDC-4 and 5 marked as the  
10 next hearing exhibit, please.

11 CHAIRMAN JABER: DDC-3 revised, DDC-4 and 5 will be  
12 identified as Composite Exhibit 48.

13 MR. SHORE: Thank you.

14 (Exhibit 48 marked for identification.)  
15  
16  
17  
18  
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21  
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23  
24  
25

1                   **BELLSOUTH TELECOMMUNICATIONS, INC.**  
2                   **DIRECT TESTIMONY OF D. DAONNE CALDWELL**  
3                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                   **DOCKET NO. 990649A-TP**  
5                   **(120-DAY ITEMS)**  
6                   **NOVEMBER 8, 2001**  
7                   **AMENDED JANUARY 28, 2002**

8  
9 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

10

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

15

16 **Q. ARE YOU THE SAME D. DAONNE CALDWELL THAT PREVIOUSLY**  
17 **FILED TESTIMONY IN THIS DOCKET?**

18

19 A. Yes.

20

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

22

23 A. In its May 25, 2001 Order No. PSC-01-1181-FOF-TP ("Order") in this docket, the  
24 Florida Public Service Commission ("Commission") outlined a number of issues  
25 that required responses by BellSouth within 120 days. The Order listed the

1 following as 120-day items: (1) Hybrid Copper/Fiber xDSL-capable loop, (2)  
2 xDSL nonrecurring costs that exclude the Design Layout Record ("DLR"), test  
3 point, and order coordination, (3) network security and inventory issues, (4)  
4 network interface device ("NID") costs, (5) explicit modeling of loops, and (6)  
5 inflation. On September 24, 2001, BellSouth filed cost studies in this docket to  
6 address these "120-day" issues. On October 2, 2001, however, the Commission  
7 reversed its ruling on inflation in Order No. PSC-01-2051-FOF-TP; therefore,  
8 revised cost studies were filed on October 8<sup>th</sup> to include the impact of inflation.  
9 Further, on October 23, 2001, the Commission identified a number of issues  
10 precipitating from BellSouth's filing, with the objective of resolving them during  
11 this phase of the docket. My testimony responds to those issues associated with  
12 cost development. In doing so, I will present and support the cost studies filed on  
13 October 8, 2001 and subsequently revised on January 28, 2002.

14

15 *Issue 1(a): Are the loop cost studies submitted in BellSouth's 120-day filing*  
16 *compliant with Order No. PSC-01-1181-FOF-TP?*

17

18 **Q. PLEASE EXPLAIN WHY THE LOOP COST STUDIES BELLSOUTH**  
19 **FILED ON OCTOBER 8, 2001, AND SUBSEQUENTLY REVISED ON**  
20 **JANUARY 28, 2002, COMPLY WITH ORDER NO. PSC-01-1181-FOF-TP.**

21

22 A. The Commission outlined a number of modifications that impact both the  
23 recurring and nonrecurring cost results for loops. Some of these adjustments are  
24 relatively easy to implement, while others required BellSouth to not only expend  
25 substantial resources, but also to alter the manner in which costs were developed.

1 The simpler Commission-ordered modifications reflected in BellSouth's October  
2 8<sup>th</sup> and January 28, 2002 cost studies include:

3

4 Cost of Capital – The Commission set the forward-looking cost of capital for  
5 BellSouth at 10.24% (60/40 equity/debt ratio, debt = 7.3%, equity = 12.2%).

6

7 Depreciation - The Commission adjusted the economic lives for metallic cable  
8 accounts and digital switching equipment. The Commission accepted BellSouth's  
9 salvage values. The chart below compares BellSouth's initially proposed  
10 economic lives and the ones ordered by the Commission. The Commission-  
11 ordered lives are reflected in the studies filed on October 8, 2001 and January 28,  
12 2002.

13

14

	<b>BellSouth</b>	<b>Commission –Ordered</b>
15		
16	Digital Switching	10
17	Aerial Metallic Cable	15
18	Underground Metallic Cable	14
19	Buried Metallic Cable	15
20	Submarine Metallic Cable	15

21

22 BellSouth asked for reconsideration on two other depreciation modifications  
23 originally reflected in the Commission-ordered rates; i.e., modifications to analog  
24 switching equipment and to submarine fiber cable. In its October 2, 2001 ruling  
25 (Order PSC-01-2051-FOF-TP), the Commission agreed that the analog switching

1 equipment economic life should be retained as BellSouth's input. In that ruling,  
2 however, the Commission rejected the other request and stated that the Order did  
3 alter the submarine fiber cable life and that it should be set at 20 years. The cost  
4 study reflects the analog switching equipment life of 1.6 years and the submarine  
5 fiber cable life of 20 years.

6

7 Taxes – The Commission ordered Florida-specific tax rates as follows: a combined  
8 state and federal income tax rate of 38.57% and an ad valorem tax rate of .9515%.  
9 Also, the “gross receipts tax” factor was set at .15%. The cost study reflects these  
10 modifications.

11

12 Each of the Commission-ordered adjustments discussed above impact the  
13 development of the shared and common cost factors. Thus, BellSouth  
14 appropriately reflected these modifications in the Shared and Common  
15 Application, which develops the shared and common cost factors.

16 Additionally, the deaveraging of loops was based upon the methodology adopted  
17 by the Commission and the details provided in Appendix B of the Order, which  
18 listed the wire centers by zone.

19

20 **Q. YOU MENTIONED THAT THERE WERE ADDITIONAL COMMISSION-**  
21 **ORDERED MODIFICATIONS THAT WERE MORE DIFFICULT TO**  
22 **MAKE. WHAT WERE THOSE MODIFICATIONS?**

23

24 A. The first modification that was more difficult to incorporate into the studies was the  
25 nonrecurring work time estimates. The Order detailed the extensive examination

1 of three representative UNEs; the ADSL loop, CCS7 Signaling and Interoffice  
 2 Transport – DS0. Based on the Commission’s analysis of these three UNEs,  
 3 adjustments to the work time estimates were recommended and outlined as listed  
 4 below (Order, page 364):

5

6 7 8 9	Category	Approved Adjustments for BellSouth’s Installation and Disconnect Work Groups and Work Times
10	CRSG Incremental Time	Eliminate work times
11	CRSG	Reduce work times by 55%
12	LCSC	Reduce work times by 75%
13	SAC	Reduce work times by 50%
14	AFIG	Reduce work times by 50%
15	CPG	Reduce work times by 50%
16	UNEC Provisioning Variables	Eliminate work times
17	UNEC	Reduce work times by 45%
18	WMC	Reduce work times by 65%
19	CO I&M	Reduce work time by 20%
20	SSI&M	Reduce work times by 35%

21  
22  
23  
24  
25

1 2 3 4	Category	Approved Adjustments for BellSouth's Installation and Disconnect Work Groups and Work Times
5	Travel	No Adjustment
6	All other work groups	Reduce work times by 45%

7 These are the modifications BellSouth used to develop the nonrecurring costs  
8 contained in the cost studies. In order to implement these reductions, BellSouth  
9 went into each input file and recalculated the originally proposed time estimates.  
10 In fact, in order to allow review of BellSouth's calculations, the input files show  
11 the Commission's modifications in red. The Commission also ordered a 50/50  
12 sharing of the cost of access to sub-loop elements, which is also reflected in both  
13 BellSouth's input files and cost results.

14  
15 The other Commission-ordered modification that was difficult to implement was  
16 one specifically listed as a "120-day" item – the explicit modeling of "all cable and  
17 associated supporting structure engineering and installation placements." (Order,  
18 Page 242) BellSouth has provided, as ordered by the Commission, a "bottoms-up"  
19 study of outside plant cable and structures using the BellSouth  
20 Telecommunications Loop Model ("BSTLM<sup>®</sup>"). Whenever possible, either actual  
21 data or subject matter experts' estimates have been used in the BSTLM. Execution  
22 of the "bottoms-up" directive required activities such as: code modifications to the

23  
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25 Reserved (BSTLM)

1 BSTLM, which BellSouth witness Mr. Stegeman addresses, review of outside  
2 contractor contracts, weighting of contractor prices by relative use, development of  
3 structure sharing percentages, estimation of BellSouth placing and splicing hours,  
4 and determination of probabilities by terrain and density.

5

6

7 **Q. ARE THERE OTHER MODIFICATIONS THAT HAVE BEEN MADE TO**  
8 **THE NONRECURRING COSTS IN ADDITION TO THOSE CONTAINED**  
9 **IN THE ORDER?**

10

11 A. Yes. As noted in the cost study there were further changes to nonrecurring cost  
12 development that need to be considered. These modifications reduce the  
13 provisioning time and thus, should reduce the nonrecurring cost. These additional  
14 input changes are detailed on pages 25-30 of the cost study. For example, the  
15 amount of time a loop is not found in LFACS was lowered from 58% to 20% and  
16 Work Management Center ("WMC") time was set at 2 minutes (down from 15).

17

18 **Q. PLEASE PROVIDE AN OVERVIEW OF THE INPUTS USED IN**  
19 **BELLSOUTH'S "BOTTOMS-UP" COST DEVELOPMENT.**

20

21 A. BellSouth's "bottoms-up" inputs were obtained from two basic sources. First  
22 Outside Plant Contractor costs for each district in Florida were reviewed. These  
23 contracts provided the individual work item price, e.g. the price to place a pole, to  
24 bore a driveway, or to bury a cable. BellSouth then used the amount of usage that  
25 occurred during 2000 to develop an average contractor cost for each type of activity.



1 Attachment 3 in Appendix B of the cost study details the calculations performed to  
2 develop the contractor cost input associated with pole placement, conduit, manhole,  
3 and their placements, buried cable placement, etc.

4

5 The second input source was the Outside Plant Construction Management  
6 (“OSPCM”) system. The OSPCM is the same system used by BellSouth’s Network  
7 organization to estimate job costs. Attachment 4 in Appendix B of the cost study  
8 provides the source code data and assumptions taken from the OSPCM system for  
9 the development of splicing and placing time inputs.

10

11 **Q. CAN YOU PROVIDE A DESCRIPTION OF THE SOURCES AND**  
12 **ASSUMPTIONS USED IN THE DETERMINATION OF EACH**  
13 **CATEGORY OF INPUT IN THE “BOTTOMS-UP” ANALYSIS?**

14

15 A. Yes. The following discussion will describe how each category of input, as they  
16 correspond to the BSTLM input tables, was derived. Attachment 1 in Appendix B  
17 of the cost study displays the resulting input.

18

19 **Aerial Structure Contract Labor**

20 Contract labor costs for placing poles were obtained from actual outside contractor  
21 contracts in each district in Florida. Each district contractor’s price was weighted  
22 by the amount of usage in the district in 2000 to arrive at a weighted average price  
23 for an average size pole placement in the state. Contract labor associated with  
24 placement of anchors was also obtained from the outside contractor contracts in  
25 each district in Florida. Guys are placed by BellSouth personnel, and the time

1 required to install a guy was obtained from the OSPCM system.

2

3 **Aerial Structure (Material)**

4 Pole material prices were also obtained from actual outside contractor contracts in  
5 each district in Florida. Each district contractor's price was weighted by the  
6 amount of usage in the district in 2000 to determine a weighted average material  
7 price for an average size pole in the state. The material costs of anchors and guys  
8 are exempt material and are captured in the exempt material loading for poles.

9

10 **Buried Excavation Contract Labor**

11 While the BSTLM input tables were modified to allow contractors' buried  
12 excavation prices to vary dependent on the terrain type, agreements between  
13 BellSouth and its outside contractors do not differentiate prices by terrain type.  
14 Therefore, all excavation cost values are the same, regardless of terrain type.  
15 Excavation costs were determined in the same manner as the aerial structure  
16 contract labor costs. Contract labor costs for buried excavation activities were  
17 obtained from actual outside contractor contracts in each district in Florida. Each  
18 district contractor's price was weighted by the amount of usage in the district in  
19 2000 to arrive at a weighted average price per foot for buried excavation in the  
20 state.

21

22 **Underground Excavation Contract Labor**

23 While the BSTLM input tables were modified to allow contractors' underground  
24 excavation prices to vary dependent on the terrain type, the agreements between  
25 BellSouth and its outside contractors do not differentiate prices by terrain type.

1 Therefore, all underground excavation cost input is the same regardless of terrain  
2 type. Underground excavation costs were determined in the same manner as the  
3 buried excavation contract labor costs. Contract labor costs for underground  
4 excavation activities were obtained from actual outside contractor contracts in each  
5 district in Florida. Each district contractor's price was weighted by the amount of  
6 usage in the district in 2000 to calculate a weighted average price per foot for  
7 underground excavation in the state.

8 **Structure Sharing**

9 BellSouth only expects to share in the cost of buried structure approximately 6% of  
10 the time in Florida. When sharing occurs, BellSouth has assumed that BellSouth  
11 and two other parties will share in the cost of buried placement. Therefore, buried  
12 sharing is calculated as follows:

13

$$\begin{array}{rcl} 14 & 94\% \times 100\% & = 94\% \\ 15 & 6\% \times 33.33\% & = 2\% \\ 16 & \text{Total} & 96\% \end{array}$$

17 The 96% reflects the amount of buried structure cost assigned to BellSouth.

18

19 For aerial plant sharing, BellSouth owns approximately 40% of the poles in its  
20 territory in Florida. Therefore, BellSouth has used 40% as the amount of pole  
21 costs assigned in its cost studies.

22

23 For underground sharing, BellSouth rarely, if ever, shares conduit placement costs  
24 with another party. BellSouth does lease a small amount of its conduit space to  
25 others and has included that amount in the underground sharing percentage as

1 follows:

2

3	Duct feet in Florida	192,128,640
4	Leased to others	129,754
5	Assigned to BellSouth	99.93%

6

7 **Facility Sharing (between feeder and distribution)**

8 The BSTLM provides the ability for sharing of structure between feeder and  
 9 distribution cables when both are located along the same path; however, this type  
 10 of sharing of structure rarely occurs according to Network subject matter experts.  
 11 This lack of sharing between feeder and distribution occurs for many reasons  
 12 including the fact that placement of feeder and distribution cables do not always  
 13 coincide in timing, often access to distribution cables is needed more frequently  
 14 than manhole spacing for feeder cable would allow, etc. Based on the fact that  
 15 experts predict very little sharing of structure between distribution and feeder,  
 16 BellSouth has assumed that when both are found on the same path that sharing of  
 17 structures occurs 25% of the time in a forward-looking environment. While  
 18 BellSouth believes the actual sharing will be less, the 25% reflects the expected  
 19 upper limit.

20

21 **Media Sharing**

22 In BellSouth's previous filing, the Media Sharing table was populated with input  
 23 values that resulted in a 50%/50% sharing of structure between copper and fiber  
 24 when both copper and fiber cables were placed on, or in, the same structure. These  
 25 values were not used in previous filings since all structure costs resulted from

1 either in-plant factors or pole/conduit factors in the BellSouth Cost Calculator  
2 rather than from the BSTLM, itself. However, since the BSTLM is calculating  
3 structure costs in this filing, the BSTLM approach was changed to improve the  
4 logic previously provided through this table. Now, instead of using the Media  
5 Sharing table, the logic of the updated BSTLM apportionments, on both distribution  
6 and feeder routes that have both copper and fiber cables, the costs of structure  
7 (poles, trenching, etc.) between the media based on the number of DS0 equivalents  
8 on each cable. This is consistent with how DLC common equipment, fiber, and  
9 the structure for fiber are apportioned in the model. Additionally, in its Order in  
10 this docket, the Commission found with respect to the use of DS0 equivalents: "Of  
11 the two factors, competitive impact or causal linkage, we believe that where  
12 possible, cost causal connections should get the nod when designing cost models.  
13 Thus, based on the evidence, we find that the BSTLM method of allocating shared  
14 investments based on DS0 equivalents is reasonable." (Order, Page 134)

15

16 **Feeder Distribution Interface (FDI) Placing Hours**

17 The BSTLM is designed to assume that FDIs are placed by telephone company  
18 personnel (i.e., placement hours X labor rate), however, FDIs are typically placed  
19 by outside contractors in BellSouth. This inconsistency in the BSTLM approach  
20 and BellSouth input was not discovered in time to correct the model. Therefore,  
21 BellSouth has taken contractor costs and converted them to hours by dividing the  
22 contractor costs by the BellSouth installation labor rate. Further, the outside plant  
23 contracts have a fixed placement cost for FDIs weighing between 101 and 800  
24 pounds, another cost for 801 to 1700 pounds, and a third price for 1701 to 4000  
25 pounds. These contractor costs for various weights have been used for each

1 applicable FDI size in the BSTLM after being converted to labor hours to fit the  
2 format of the BSTLM input table.

3

4 **Aerial Structure Placing Hours (Telco)**

5 Since outside contractors place poles for BellSouth, this table is only used for the  
6 time to place a guy, which is handled by BellSouth personnel.

7 **DTBT Splicing and Placing Hours**

8 Times for closure and setup, cross connects and splicing were obtained from the  
9 OSPCM system used by BellSouth to estimate job costs for internal purposes.

10 While the material prices for terminals of sizes 100 pairs or less are exempt  
11 material, the labor to install these terminals is not. Therefore, the times are  
12 populated for all sizes of terminals.

13

14 **Media Splicing and Placing Hours**

15 Times for placing and splicing aerial, buried and underground copper and fiber  
16 cables were obtained from the OSPCM system used by BellSouth to estimate job  
17 costs for internal purposes. Since outside contractors place buried cable, buried  
18 placing costs are zero in this table.

19

20 **FDI Splicing**

21 Times for FDI splicing were obtained from the OSPCM system used by BellSouth  
22 to estimate job costs for internal purposes.

23

24 **Percent Activities**

25 Similar to other proxy-type cost models, the BSTLM requires knowledge of not

1 only the cost of various activities associated with placing the structure for cable,  
2 but also the likelihood that each of those activities will occur in various density  
3 zones and various terrain types. Actual data regarding these probabilities by  
4 density and terrain type does not exist. However, BellSouth's subject matter  
5 experts previously reviewed the default percentages used in the BenchMark Cost  
6 Proxy Model ("BCPM") and found them to be a reasonable reflection of BellSouth  
7 experience in various terrain and density combinations. Additionally the  
8 Commission approved the use of these "percent activities" in the Universal Service  
9 Fund ("USF") Docket No. 980696-TP. BellSouth used those same percentages in  
10 this filing. Modifications were required, however, since the BCPM included nine  
11 density zones and separated feeder from distribution. The BSTLM, on the other  
12 hand, includes a breakdown into three density groups (which are groupings of the  
13 density zones) – urban, suburban and rural – and combines feeder and distribution  
14 into one table. Thus, BellSouth combined the feeder percent activities previously  
15 approved by the Commission such that areas with fewer than 200 lines per square  
16 mile are classified as rural, areas with between 201 and 5000 lines per square mile  
17 are treated as suburban, and areas with more than 5000 lines per square mile are  
18 considered urban.

19

#### 20 **Other Material Loadings**

21 While BellSouth has used the capabilities of the BSTLM to develop a "bottoms-  
22 up" approach to determining installation and engineering costs, there remain  
23 certain items of investment that are calculated via factors. Those items include  
24 sales tax, exempt material, supply expense, and other items such as indirect labor  
25 costs, right of way and tree trimming associated with initial cable placements, and

1 interest during construction. These items are included in this filing in the Material  
2 Loading table. Attachments 5 and 5A in Appendix B to the cost study provide a  
3 description and explain the development of these factors.

4

5 **Pole, Guy and Anchor, and Manhole Spacing**

6 Pole spacing was determined by examining 12/31/00 ARMIS Report 43-08 for  
7 Florida to determine the number of poles in the state relative to the sheath distance  
8 of aerial cable in the state. Worksheets displaying the development of the pole  
9 spacing input are shown in Attachment 1 of Appendix B to the cost study. The  
10 number of poles owned by BellSouth in Florida were adjusted by the percentage of  
11 poles owned by BellSouth to arrive at the total number of poles to which BellSouth  
12 cable is attached in Florida. Then, this adjusted number of poles was divided into  
13 the aerial sheath feet in Florida. The result was 112 feet of aerial sheath per pole.  
14 BellSouth rounded this up to an even 120 feet. This result is extremely  
15 conservative given the fact that this methodology assumes only one existing  
16 BellSouth sheath on each pole line route, when in reality there are often two or  
17 more sheaths on a given pole line. If one were to assume 1.5 sheaths, on average,  
18 per pole line, the spacing interval would drop to approximately 75 feet.

19

20 Anchor and guy spacing is estimated to be every 500 feet (roughly every 4 poles)  
21 and manhole spacing is assumed to be every 625 feet based on subject matter  
22 expert estimates.

23

24 **Underground Conduit and Manhole Contractor Costs**

25 Conduit duct costs and manhole costs, like the underground excavation contract



1 labor costs, were also obtained from actual outside contractor contracts in each  
2 district in Florida. Each district contractor's price was weighted by the amount of  
3 usage in the district in 2000 to determine a weighted average price for furnishing  
4 and installing conduit and manholes in the state. As specified in the contracts,  
5 contractors charge to place manholes on a per cubic foot basis. Therefore, the  
6 BSTLM inputs for manhole costs were based upon the total cubic feet of the  
7 different sizes.

8

9 **Engineering**

10 The BSTLM's internal logic in the previous filing (August 2000) calculated  
11 engineering as a loading on material. For the 120-day filing, the BSTLM logic  
12 has been modified to now calculate engineering costs by applying factors to the  
13 total of non-engineering investments (i.e., as a loading on material, installation  
14 labor, sales tax, and other loadings.) The engineering factors used and included in  
15 the January 28, 2002 filing are account-specific and were developed from the  
16 same data source previously used to derive in-plant factors, the 1998 State and  
17 Local Sales Taxes, Resource Tracking Analysis and Planning ("RTAP") System,  
18 and Special Report/File 542 - 1998 Investments. The basic factor calculation is  
19  $(\text{TELCO Engineering} + \text{Vendor Engineering}) / (\text{TELCO Labor} + \text{Vendor Labor} +$   
20  $\text{Exempt Material} + \text{Non-exempt Material} + \text{Other})$

21

22 **Outside Contractor Use (Engineering Rules)**

23. This input table was not used in the previous filing by BellSouth since all  
24 contractor and BellSouth labor was calculated via in-plant factors in the Cost  
25 Calculator. This table directs the BSTLM to use either contractor installation or

1 BellSouth personnel installation (“Y” indicates contractor while “N” indicates  
2 BellSouth personnel). Since poles are placed by contractors and guys are placed  
3 by BellSouth personnel, the table was modified to include a third option for Poles  
4 (“B” indicates that both contractor and BellSouth installation is required).  
5 Additionally, even though not used, this table was populated in the previous filing  
6 and two entries required correction. The indicators for DTBT and FDI were  
7 changed from “Y” to “N” to reflect the fact that BellSouth personnel placed FDI  
8 (see discussion of FDI placing hours above) and terminals.

9

10 **Q. HOW DO THE RECURRING COSTS OBTAINED FROM USE OF THE**  
11 **“BOTTOMS-UP” APPROACH COMPARE TO COSTS USING IN-PLANT**  
12 **FACTORS?**

13

14 A. Some of the element costs have increased, while others have decreased, even  
15 though all costs are based on the same “bottoms-up” input values and BSTLM  
16 algorithms. For example, the Service Level 1 (“SL1”), SL2, ISDN, and 4 wire  
17 DS1 loops have increased in every zone as compared with the current  
18 Commission-ordered rates. On the other hand, 2 wire and 4 wire UCL-Long loops  
19 have decreased in every zone. Additionally, for a given element, one deaveraged  
20 zone cost may have increased while another zone cost has decreased. For  
21 example, the 2 wire UCL-Short loop’s zone 1 cost increased while zones 2 and 3  
22 decreased. Exhibit DDC-1\_120 compares BellSouth’s “bottoms-up” cost study to  
23 the revised Commission-ordered rates contained in Appendix A of Order PSC-01-  
24 2051-FOF-TP. (The Commission-ordered rates are those that reflect the impact of  
25 inflation.) As one can see from reviewing this exhibit, the differences do not seem

1 to follow any pattern.

2

3 *Issue 1(b): Should BellSouth's loop rates or rate structure previously approved*  
4 *in Order No. PSC-01-1181-FOF-TP be modified? If so, to what*  
5 *extent, if any, should the rates or rate structure be modified?*

6

7 **Q. FROM A COST PERSPECTIVE, WHAT IS YOUR OPINION ON THIS**  
8 **ISSUE?**

9

10 A. First, the Commission must also consider Order PSC-01-2051-FOF-TP, which re-  
11 instated the impact of inflation. Once the decisions contained in that ruling are  
12 considered, there is no reason to modify the loop rates or the rate structure. From  
13 the discussion I have presented on the input development, one can see that the  
14 "bottoms-up" approach taken by BellSouth is a much more complex study of loop  
15 costs than the previously filed study based upon the use of in-plant factors and  
16 structure loading factors. BellSouth continues to believe, however, that the use of  
17 in-plant factors and structure loading factors produces reasonable, accurate results  
18 and that the ordered rates should remain as is. Cost studies produce estimates of  
19 cost, not absolute results. While the "bottoms-up" approach produces very specific  
20 results, these results are a combination of a much larger number of influencing  
21 variables and inputs than was present under the factor approach. Under the  
22 "bottoms-up" method, depending upon the customer location, the type and size of  
23 facilities, and number of services, the costs can vary substantially, as Exhibit  
24 DDC-1\_120 illustrates. In contrast, in-plant and loading factors reflect  
25 experienced cost relationships between material prices and labor/engineering costs.

1  
2 Furthermore, the “bottoms-up” approach introduces an extensive set of new inputs  
3 that can be questioned, criticized and manipulated by intervening parties. While  
4 BellSouth is not afraid of this scrutiny, it does not believe that the end-result of  
5 such an effort will produce either a better quality result or a more “TELRIC-  
6 compliant” result.

7

8 *Issue 2(a): Are the ADUF and ODUF cost studies submitted in BellSouth's*  
9 *120-day filing compliance filing appropriate?*

10 **Q. WHY DID BELLSOUTH FILE ADUF AND ODUF COSTS IN THIS PHASE**  
11 **OF THE DOCKET?**

12

13 A. Even though the Commission’s Order did not specifically include these elements  
14 in the 120-day requirement, substantial changes to the study inputs necessitated  
15 that BellSouth advise the Commission. The costs for the DUF elements BellSouth  
16 filed reflect the applicable Commission-ordered modifications I discussed  
17 previously. As I explain below, BellSouth is revising the DUF element costs  
18 further and is filing a revised cost study simultaneously with this testimony (Cost  
19 Study - Revision 2).

20

21 **Q. PLEASE BRIEFLY EXPLAIN WHAT THE ADUF AND ODUF**  
22 **ELEMENTS ARE AND HOW THE COSTS WERE DEVELOPED.**

23

24 A. In fact, there are three different daily usage offerings; Access Daily Usage Files  
25 (“ADUF”), Optional Daily Usage Files (“ODUF”), and Enhanced Optional Daily

1 Usage Files ("EODUF"). Each of the offerings provides electronic billing data to  
2 the ALECs:

3

4 ADUF – information of end user's daily originating and terminating access carrier  
5 messages. BellSouth extracts and distributes call detail on these access messages.

6

7 ODUF – call detail information for billable messages transported through  
8 BellSouth's network and processed in BellSouth's CRIS (Customer Records  
9 Information System) billing system. BellSouth extracts and distributes call detail  
10 on messages such as, Measured Local, IntraLATA Toll, and operator-handled calls  
11 if the ALEC purchases Operator Services from BellSouth. This element is  
12 applicable to both UNEs and resale.

13

14 EODUF – usage data for local calls that originate from resold, flat-rated business  
15 and residential lines. BellSouth extracts and distributes call detail on these  
16 messages.

17

18 BellSouth has developed unique programs at the ALEC's request in order to  
19 extract the billing data they requested, in a format such that they can bill their end-  
20 users. The costs associated with this on-going process and the computer resources  
21 required to implement and support the programs are reflected in BellSouth's cost  
22 study. These costs are incremental to BellSouth's normal billing process.

23

24 **Q. WHY WERE THESE COST STUDIES FOR THE DAILY USAGE FILE**  
25 **("DUF") ELEMENTS REVISED?**

1

2 A. When BellSouth developed the cost study inputs in the original filing (August  
3 2000), the actual number of records was low and rather stagnant. The projected  
4 demand reflected this trend. Since the time the original cost study was filed in this  
5 docket, however, BellSouth experienced a dramatic increase in the number of  
6 message records. The increase in the number of resale to UNE-P (combination)  
7 conversions may have caused this upswing. Since the cost results for the DUF  
8 elements are demand-dependent, BellSouth included the DUF elements as part of  
9 the 120-day items. In fact, in gathering cost input for the most recently initiated  
10 generic cost docket in BellSouth's region (Georgia Docket No. 14361-U),  
11 projected demand for ADUF and ODUF has increased over what was filed on  
12 October 8<sup>th</sup> in Florida. (The EODUF demand has decreased, increasing the costs  
13 slightly.) Exhibit DDC-1\_120 displays the results of updating this demand. As I  
14 mentioned previously, concurrent with the filing of this testimony, BellSouth is  
15 filing its revised cost study to incorporate this change in demand to the DUF  
16 elements. Only the DUF results changed from the study filed on October 8, 2001.  
17 The DUF elements were not impacted by any of the revisions made with the  
18 January 28, 2002 filing.

19

20 ***Issue 2(b): Should BellSouth's ADUF and ODUF rates or rate structure***  
21 ***previously approved in Order No. PSC-01-1181-FOF-TP be***  
22 ***modified? If so, to what extent, if any, should the rates or rate***  
23 ***structure be modified?***

24

25 **Q. WHAT IS YOUR OPINION ON THIS ISSUE?**

1

2 A. The Commission should consider the updated information on DUF costs filed here.  
3 BellSouth, in good faith, has advised this Commission of a supportable change to a  
4 cost study input. Since the change results in a reduction of ADUF and ODUF  
5 rates, the intervening parties would not be adversely affected by a decision to  
6 consider the revised cost study. Let me clarify one point, the issue here is whether  
7 or not the rates should be revised. It is NOT a question of whether or not DUF  
8 rates are appropriate. This issue has already been litigated in the first phase of this  
9 proceeding and the Commission established rates in both Order No. PSC-01-1181-  
10 FOF-TP and in Order No. PSC-01-2051-FOF-TP, which considered inflation.

11

12 *Issue 3(a): Are the UCL-ND loop cost studies submitted in BellSouth's 120-day*  
13 *filing compliant with Order No. PSC-01-1181-FOF-TP?*

14

15 **Q. WHY DID BELL SOUTH FILE A COST STUDY FOR UCL-ND IN THIS**  
16 **PHASE OF THIS DOCKET?**

17

18 A. One of the "120-day" requirements identified by this Commission was to  
19 determine xDSL nonrecurring costs that exclude the Design Layout Record  
20 ("DLR"), test point, and order coordination. The Unbundled Copper Loop – Non-  
21 Designed ("UCL-ND") fulfills that obligation. In addition, this all copper loop  
22 offering satisfies the Commission's requirement that BellSouth provision SL1  
23 loops and guarantee not to roll them onto another facility or convert them to  
24 another technology. The UCL-ND gives the ALECs what they need to provide  
25 xDSL service, but does not unduly restrict BellSouth in providing voice grade

1 service over the most efficient technology.

2

3 **Q. HOW DOES THE UNBUNDLED COPPER LOOP – NON-DESIGNED**  
4 **DIFFER FROM THE UNBUNDLED COPPER LOOPS PREVIOUSLY**  
5 **FILED BY BELLSOUTH IN THIS DOCKET?**

6

7 A. As the name implies, these loops do not go through the design process BellSouth  
8 utilizes to provision UCL-Short and UCL-Long loops. Thus, they are not  
9 provisioned with a test point and a DLR will not be provided. Additionally, the  
10 UCL-ND loop will not have a specific length limitation. Since its resistance is  
11 restricted to 1300 ohms, however, the UCL-ND loop generally will be 18,000 feet  
12 or less. However, in some cases, the length may be longer based on gauge.

13

14 Even though the DLR is not provided with the UCL-ND loop, ALECs may request  
15 an Engineering Information document from BellSouth (element A.1.8). This  
16 document provides loop make-up information, similar to a DLR. The October 8<sup>th</sup>  
17 cost study also includes the cost development for this optional element. The cost  
18 of Element A.1.8 was not impacted by the January 28, 2002 revision.

19

20 **Q. HOW DOES THE RECURRING COST OF UCL-ND LOOPS COMPARE**  
21 **TO OTHER TYPES OF LOOPS?**

22

23 A. The table below compares the statewide average recurring cost of an SL1, SL2,  
24 ADSL, HDSL, UCL-Short and UCL-Long to the UCL-ND loop based on the  
25 “bottoms-up” approach.



1			
2	A.1.1	2-Wire Analog Voice Grade Loop - Service Level 1	\$19.52
3	A.1.2	2-Wire Analog Voice Grade Loop - Service Level 2	\$21.72
4	A.6.1	2-Wire Asymmetrical Digital Subscriber Line (ADSL) Compatible Loop	\$15.66
5	A.7.1	2-Wire High Bit Rate Digital Subscriber Line (HDSL) Compatible Loop	\$13.60
6	A.13.1	2-Wire Copper Loop – short	\$15.66
7	A.13.7	2-Wire Copper Loop – long	\$32.19
8	A.13.12	2-Wire Copper Loop – ND	\$15.21

9

10 Note that the UCL-ND loop is less than both an UCL-Short loop and an SL1 loop,  
 11 and significantly less than the UCL-Long loop. This is consistent with the fact that  
 12 test points have been removed and that the UCL-ND has no length restriction, but  
 13 is generally less than 18,000 feet because of the 1300-ohm resistance limit. In  
 14 running the Copper-Only scenario in the BSTLM, the loop limit was set at 24,000  
 15 feet in order to capture those loops that potentially would still meet the 1300-ohm  
 16 restriction, but exceed the 18,000 feet limit. In fact, the average loop length for the  
 17 UCL-ND generated by the BSTLM is 13,258 feet.

18 **Q. HOW DOES THE NONRECURRING COST OF UCL-ND LOOPS**  
 19 **COMPARE TO OTHER TYPES OF LOOPS?**

20

21 A. The nonrecurring cost of an UCL-ND is less than the nonrecurring costs associated  
 22 with designed loops. Additionally, it is less than the SL1 because it is an all-  
 23 copper loop and thus, a plug-in does not have to be provisioned in the digital loop  
 24 carrier system.

25

1 **Q. ARE THERE OTHER ADJUSTMENTS TO THE COST STUDY THAT**  
2 **ARE REQUIRED DUE TO THE UCL-ND OFFERING?**

3

4 A. Yes. As I mentioned previously, this type of loop is non-designed. Thus, no test  
5 point is provisioned. ALECs, however, may desire a joint acceptance test to  
6 benchmark the transmission quality of the loop and to ensure compatibility with  
7 the xDSL service they wish to provide. These testing parameters include, but are  
8 not limited to, testing for non-loading, balance of pair, and continuity from the  
9 main distribution frame ("MDF") to the network interface device ("NID").  
10 BellSouth filed Testing Beyond Voice (A.19 elements) previously in this docket.  
11 These costs, however, only considered testing a designed loop that had been  
12 conditioned. The adjusted loop testing elements also consider testing parameters  
13 for non-designed loops (SL1 or UCL-ND). .

14

15

16 *Issue 3(b): What modifications, if any, are appropriate and what should the*  
17 *rates be?*

18

19 **Q. SHOULD THIS COMMISSION USE THE COSTS FILED HERE TO SET**  
20 **RATES FOR UCL-ND ELEMENTS?**

21

22 A. No. As discussed in response to Issue 1(b), BellSouth does not believe that the  
23 "bottoms-up" approach develops a more representative result than the use of  
24 factors. Let me note that BellSouth has also filed the UCL-ND elements in Docket  
25 No. 960786-TP (271 docket) based on the use of in-plants and loading factors.

1 Those cost studies reflect the Commission-ordered adjustments except for the re-  
2 instatement of inflation. BellSouth requests that the Commission establish rates  
3 for the UCL-ND related elements in Docket No. 960786-TP once inflation is  
4 considered.

5

6 *Issue 4(a): What revisions, if any, should be made to NIDs in both the BSTLM*  
7 *and the stand-alone NID cost study?*

8 *Issue 4(b): To what extent, if any, should the rates or rate structure be modified?*

9

10 **Q. ARE REVISIONS REQUIRED TO THE CALCULATION OF BOTH**  
11 **TYPES OF NID COSTS?**

12

13 A. No. Adjustments are not required to both the NID cost considered in the BSTLM  
14 and to the stand-alone NID costs. The stand-alone NID costs, however, do require  
15 revision. Let me explain.

16 At pages 192-93 of Order No. PSC-01-1181-FOF-TP, the Commission noted an  
17 inconsistency in the treatment of exempt/miscellaneous material for the stand-  
18 alone NID and the exempt/miscellaneous material associated with the NID when it  
19 is provisioned with the loop (via the BSTLM).

20

21 Typically, the NID is provisioned with the loop at the time the residence or  
22 business is constructed and the drop wire is placed and treated as capitalized  
23 investment. For most cable placements in BellSouth's studies, exempt material is  
24 recovered through an In-Plant factor; however, a different approach is taken for the  
25 NID and drop. BellSouth, in the BSTLM, directly identifies items normally

1 captured in an In-Plant factor (labor, exempt materials, sales tax, etc.) for the  
2 capitalized drop and NID.

3

4 Thus, because the NID investment generated by the BSTLM already considers  
5 exempt material, taxes, labor, etc., the BellSouth Cost Calculator does not need to  
6 apply the In-Plant factors to drop and NID investments. BellSouth reflected this by  
7 assigning special "sub-FRCs" to the drop and NID. These special sub-FRC codes  
8 are 22C-01 or 45C-01. The "01" sub-FRCs instruct the BellSouth Cost Calculator  
9 not to apply In-Plant factors to those items of plant. Therefore, BellSouth's NID  
10 costs associated with unbundled loops are correct and no "double-counting" of In-  
11 Plant costs associated with the NID or drop occurs.

12

13 On the other hand, Stand-Alone NID/NID Access is a separate UNE offering  
14 designed for situations where the existing NID is not suitable for ALEC connection  
15 and where BellSouth terminates its loop directly to the inside wire, or at the  
16 ALEC's request. BellSouth charges a nonrecurring fee for the installation of,  
17 material for, and cross connect (if appropriate) to the stand-alone NID. The stand-  
18 alone NID material (housing, interface, and protectors) is exactly the same as the  
19 NID placed with the loop. As found by the Commission in its Order, BellSouth  
20 did not apply exempt materials in the stand-alone NID study. In fact, BellSouth  
21 should indeed have included exempt material in its stand-alone NID costs.  
22 BellSouth has included this adjustment in this filing. Further, these are the  
23 appropriate costs to be used to establish rates for Stand-Alone NID/NID Access  
24 elements.

25

1 *Issue5 (a): What is a “hybrid copper/fiber xDSL-capable loop” offering and*  
2 *is it technically feasible for BellSouth to provide it?*

3

4 (b) *Is BellSouth’s cost study contained in the 120-day compliance*  
5 *filing for the “hybrid copper/fiber xDSL-capable loop” offering*  
6 *appropriate?*

7

8 (c) *What should the rate structure and rates be?*

9

10 **Q. THE COMMISSION’S ORDER STATED “WE BELIEVE BELLSOUTH IS**  
11 **OBLIGATED, IF TECHNICALLY FEASIBLE, TO PROVIDE HYBRID**  
12 **COPPER/FIBER xDSL-CAPABLE LOOPS TO DATA ALECS.” WHAT**  
13 **COST SUPPORT HAS BELLSOUTH FILED IN SUPPORT OF THE**  
14 **HYBRID COPPER/FIBER LOOP?**

15

16 A. BellSouth filed the recurring and nonrecurring costs associated with providing data  
17 ALECs the ability to utilize a loop served by fiber-fed digital loop carrier (“DLC”)  
18 systems (i.e., loops comprised of fiber feeder and copper distribution) to offer  
19 digital subscriber line (“DSL”) services to their end-users, without unbundling  
20 packet switching. The distribution portion of the loop is comprised of a dedicated  
21 2-wire physical transmission facility which is connected to a dedicated 16-port  
22 Digital Subscriber Line Access Multiplexer (“DSLAM”). From the DSLAM, a  
23 dedicated DS1 is required through the DLC remote terminal (“RT”) to the central  
24 office terminal (“COT”) to the ALEC’s collocated space in the central office.  
25 Exhibit DDC-2\_120 depicts the components of the Hybrid Copper/Fiber loop.

1 BellSouth witness Mr. Jerry Kephart addresses the feasibility issue and discusses  
2 why this configuration fulfills the Commission's directive. I address how the costs  
3 were developed.

4  
5 The BSTLM developed the investments associated with the DS1 component of the  
6 Hybrid Copper/Fiber Loop. Let me note that this sub-loop feeder DS1 is not the  
7 same as the unbundled sub-loop feeder – 4-wire DS1 (element A.9.2) also filed in  
8 this docket. The sub-loop feeder DS1 (A.9.2) includes the feeder portion of all  
9 DS1 loops. These include DS1 loops served by both copper feeder and those  
10 served by fiber feeder facilities to a remote DLC terminal. The Hybrid  
11 Copper/Fiber DS1 (element A.20.1), on the other hand, only considers locations  
12 served via a remote DLC terminal served by fiber. Thus, all of the locations used  
13 in the calculation of the sub-loop feeder – 4-wire DS1 are not included in the cost  
14 calculation of the Hybrid Copper/Fiber DS1. The material prices for the 16-port  
15 DSLAM were obtained from vendor contracts.

16 The nonrecurring costs reflect the work activities required to connect and turn-up  
17 the DS1 and the 2-wire transmission facility onto the DSLAM. In order to make  
18 this a functional loop and to reflect the manner in which the loop will be  
19 provisioned, the individual network components must be summed into (1) System,  
20 (2) DS1, and (3) Activation elements.

21

22 **Q. PLEASE DESCRIBE WHICH COMPONENTS ARE CONSIDERED IN**  
23 **THE SYSTEM, DS1, AND ACTIVATION COSTS.**

24

25 A. The System element represents the cost of the DSLAM (element A.20.3) with an

1 administrative DS1 (A.20.1), which is used for BellSouth's management of the  
2 DSLAM. This administrative DS1 does not terminate at the ALEC's collocation  
3 space. Instead, it terminates into a DSL hub bay in order to allow BellSouth to  
4 control the provisioning, maintenance, and repair of the xDSL Hybrid  
5 Copper/Fiber loop. The cost of the administrative DS1 does not differ from the  
6 DS1 that terminates into the ALEC's collocation space.

7  
8 The DS1 element accounts for the cost of the fiber DS1 that essentially connects  
9 the DSLAM at the RT to the ALEC's collocated space in the central office. The  
10 recurring cost is equal to the Hybrid Copper/Fiber DS1 (element A.20.1). The  
11 nonrecurring cost is the sum of the DS1 establishment element (A.20.2) and the  
12 nonrecurring cost associated with the Sub-loop Feeder per 4-wire DS1 element  
13 (A.9.2). Let me note that the nonrecurring cost for A.9.2 was not restudied since  
14 the Commission has set a rate for this element. Rather, the rate (\$133.77) was  
15 hard-coded into the Final Cost Summary.

16 The Activation nonrecurring cost is the sum of the channel activation cost (element  
17 A.20.4) and the nonrecurring cost associated with the 2-wire distribution sub-loop  
18 (element A.2.2).

19 ***Issue 6: In BellSouth's 120-day filing, has BellSouth accounted for the impact***  
20 ***of inflation consistent with Order No. PSC-01-2051-FOF-TP?***

21

22 **Q. WHAT IS YOUR RESPONSE TO THIS ISSUE?**

23

24 **A.** BellSouth's cost studies are in compliance with the Commission's directive on  
25 inflation. Order No. PSC-01-2051-FOF-TP states: "we hereby reconsider our

1 decision to reject BellSouth's proposed inflation factor, because it was based upon  
2 a misinterpretation and misrepresentation of the facts presented." (Page 5) Thus,  
3 the Commission found that the application of inflation factors to both the  
4 investment and to labor rates is appropriate. The cost study filed on October 8,  
5 2001 reflects the impact of inflation based on factors originally filed in this docket.  
6 BellSouth made no adjustment to the inflation application in the January 28, 2002  
7 filing.

8

9 *Issue 7: Apart from issues 1-6, is BellSouth's 120-day filing consistent with*  
10 *the orders in this docket?*

11

12 **Q. WHAT IS YOUR RESPONSE TO THIS ISSUE?**

13

14 A. The cost studies filed by BellSouth incorporate all of the adjustments ordered by  
15 this Commission. I have described the modifications as part of this testimony.

16 Further, the cost study contains a detailed discussion of the adjustments made by  
17 BellSouth in order to comply with the Commission's directive.

18

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

20

21 A. Yes.

22

23

24

25



1                                    **BELLSOUTH TELECOMMUNICATIONS, INC.**  
2                                    **SURREBUTTAL TESTIMONY OF D. DAONNE CALDWELL**  
3                                    **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
4                                    **DOCKET NO. 990649A-TP**  
5                                    **(120-DAY ITEMS)**  
6                                    **DECEMBER 26, 2001**  
7                                    **AMENDED JANUARY 28, 2002**

8  
9 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

10

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

15

16 **Q. ARE YOU THE SAME D. DAONNE CALDWELL THAT PREVIOUSLY**  
17 **FILED TESTIMONY IN THIS DOCKET?**

18

19 A. Yes.

20

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

22

23 A. The purpose of my testimony is to respond to cost development issues raised in the  
24 testimony filed by intervening parties. Specifically, I respond to allegations made  
25 by AT&T/MCI WorldCom witnesses Greg Darnell, John Donovan, and Brian

1 Pitkin and Florida Digital Network ("FDN") witness Michael Gallagher.

2 **MULTIPLE SCENARIOS**

3 Q. MR. DARNELL CLAIMS THAT THE FLORIDA PUBLIC SERVICE  
4 COMMISSION ("COMMISSION") FOUND THAT "BELLSOUTH'S  
5 METHOD OF DEVELOPING UNE LOOP RATES WAS NOT  
6 ACCEPTABLE." (PAGE 2, LINES 20-21) DO YOU AGREE?  
7

8 A. Absolutely not. First, the argument presented by Mr. Darnell concerns multiple  
9 scenario use by the BellSouth Telecommunications Loop Model<sup>©</sup> ("BSTLM").  
10 This issue was not identified by the Commission as a "120-day" issue and thus, is  
11 not properly before the Commission. Mr. Darnell is attempting to argue a topic  
12 that has been reviewed, resolved, reconsidered, and rejected by the Commission.  
13 Second, Mr. Darnell has selectively extracted a single statement contained in the  
14 discussion of this issue from the order and has ignored the Commission's  
15 conclusion. In fact, the Commission stated: "Accordingly, at this time we find that  
16 the record supports that the BST2000 is an appropriate basis for determining the  
17 costs of stand-alone UNE loop offerings, while the Combo run is appropriate only  
18 for certain integrated loop/port combinations." (Page 155, Order No. PSC-01-  
19 1181-FOF-TP) Further, WorldCom argued the same points contained in Mr.  
20 Darnell's testimony in its request for reconsideration on this issue. After review of  
21 the reconsideration arguments, the Commission ruled:

22

23 the Movants' Motion for Reconsideration on this point is denied. The Movants  
24

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1 have not identified a mistake of fact or law in our decision. Disagreement with  
2 our interpretation of the law does not equate to [a] mistake in our decision. (Page  
3 19, Order No. PSC-01-2051-FOF-TP)

4  
5 Lastly, every Commission in BellSouth's region that has considered the argument  
6 raised again (and inappropriately) by Mr. Darnell has, like this Commission,  
7 rejected the argument and ruled that it is appropriate to use multiple scenarios in  
8 the BSTLM to calculate rates for different UNEs. Mr. Darnell offers nothing in his  
9 testimony that should cause the Commission to overturn its previous ruling.

10

11 **DAILY USAGE FILES ("DUFs")**

12 **Q. MR. DARNELL ASSERTS: "DUF CHARGES ARE THE SAME COSTS**  
13 **THAT BELL SOUTH USED IN ITS DEVELOPMENT OF THE COMMON**  
14 **COST FACTOR." (PAGE 11, LINES 17-18) IS HE CORRECT?**

15

16 A. No. Mr. Darnell is wrong. As the input sheets to the DUF studies filed as part of  
17 BellSouth's cost study show, the costs reflect the computer resources,  
18 programming effort and support labor directly attributable to the processing and  
19 delivery of the ALECs' daily usage files ("DUFs"). These costs are incremental to  
20 costs associated with normal call measurement detail. BellSouth developed unique  
21 programs at the ALECs' request in order to extract the billing data they requested,  
22 in a format they can use to bill their end-users. The costs associated with this on-  
23 going process and the computer resources required to implement and support the  
24 programs are appropriately reflected in BellSouth's cost study. Also, the cost of  
25 recording is not included in the DUF studies. There is a separate element for

1 recording (element M.2.1) that is only charged to facility-based providers who  
2 purchase operator services from BellSouth. Second, the DUF products were  
3 developed to extract data in a format unique to the ALEC. For example, Enhanced  
4 Optional Daily Usage File ("EODUF") is designed to capture the call details from  
5 what would have "normally" been a flat-rated customer. It is evident that these  
6 ALEC-caused costs are in addition to BellSouth's normal billing process and  
7 therefore are appropriately charged to the ALEC.

8  
9 Even though Mr. Darnell provides no support for his argument, he may have based  
10 his "double recovery" claim on the fact that the same expense accounts (6124,  
11 6623, and 6724) appear in both the DUF studies and in the shared and common  
12 cost factors. However, BellSouth identified and removed costs that are directly  
13 assigned in the cost studies from the development of the shared and common  
14 factors. In fact, file EXPPRJ00.XLS, contained in the cost study, outlines the  
15 adjustments BellSouth made to remove the directly identified costs. Thus,  
16 BellSouth's "currently approved common cost factor does not include certain  
17 forward-looking common costs," as Mr. Darnell contends. (Darnell Testimony,  
18 Page 11, Lines 21-22)

19  
20 Finally, Mr. Darnell's recommendation that "[I]f the amount of the cost directly  
21 assigned to DUF charges is so insignificant that it does not effect the common cost  
22 percentage when this cost is removed from the percentage, the Commission should  
23 reject DUF charges" is both a self-serving pronouncement and a faulty conclusion.  
24 (Darnell Testimony, Page 12, Lines 17-20) ALECs directly cause these costs to be  
25 incurred and BellSouth does not benefit from the production of daily usage files.

1 Thus, BellSouth may appropriately recover these costs. Mr. Darnell's accusation  
2 of BellSouth engaging in "costing mischief" is wholly unfounded.

3

4 **HYBRID COPPER/FIBER LOOP**

5 **Q. MR. DARNELL AND MR. GALLAGHER COMMENT ON THE HYBRID**  
6 **COPPER/FIBER LOOP FILED BY BELL SOUTH. PLEASE RESPOND TO**  
7 **THEIR CRITICISMS.**

8

9 A. My response will center on the way in which the costs were developed. BellSouth  
10 witness Jerry Kephart will comment on the product design and network  
11 requirements of this offering and Tommy Williams will discuss BellSouth's  
12 unbundling requirements as and expand on how it relates to Line Sharing and Line  
13 Splitting.

14

15 Mr. Darnell claims that the nonrecurring charge for channel activation (A.20.4)  
16 should be set to zero since "the nonrecurring charges for element A.2.2 subloop  
17 already recover those costs." (Darnell Testimony, Page 17, Lines 22-23) Mr.  
18 Darnell's contention that these costs have already been recovered is wrong. The  
19 input file for the A.20.4 element clearly identifies a work group and associated  
20 work activity not contained in the input file of the sub-loop element A.2.2. The  
21 Data Support Group (wage scale 32) was not a component of the A.2.2 cost  
22 development. Clearly since the Hybrid Copper/Fiber Loop is designed to handle  
23 data transmissions, while the distribution sub-loop is primarily designed to carry  
24 only voice traffic, it is not surprising that additional work activity by the Data  
25 Support Group is required. Mr. Darnell makes the same incorrect allegation

1 concerning the nonrecurring costs associated with the Hybrid Copper/Fiber DS1,  
2 i.e., that an incremental cost does not exist. Again, Mr. Darnell is wrong. The  
3 same Data Support Group activity is required on the DS1 as on the distribution  
4 portion of the Hybrid Copper/Fiber Loop.

5  
6 Both Mr. Darnell and Mr. Gallagher question the difference in recurring costs  
7 between the Hybrid Copper/Fiber DS1 and the sub-loop feeder DS1. Their  
8 concern is unfounded. As I explained in my direct testimony: "this sub-loop  
9 feeder DS1 is not the same as the unbundled sub-loop feeder -- 4-wire DS1  
10 (element A.9.2) also filed in this docket. The sub-loop feeder DS1 (A.9.2) includes  
11 the feeder portion of all DS1 loops. These include DS1 loops served by both  
12 copper feeder and those served by fiber feeder facilities to a remote DLC terminal.  
13 The Hybrid Copper/Fiber DS1 (element A.20.1), on the other hand, only considers  
14 locations served via a remote DLC terminal served by fiber. Thus, all of the  
15 locations used in the calculation of the sub-loop feeder DS1 (A.9.2) are not  
16 included in the cost calculation of the Hybrid Copper/Fiber DS1." Therefore, Mr.  
17 Gallagher's conclusion that this difference is due to BellSouth's "fail[ure] to utilize  
18 a single unified design in the determination of its unbundled DS1 subloop rates" is  
19 incorrect. (Gallagher Testimony, Page 26, Lines 22-23) Even if BellSouth had  
20 used only one scenario in running the BSTLM, there would still have been a  
21 difference between the two DS1 elements because they are defined differently.  
22 The sub-loop DS1 (A.9.2) considers both copper and fiber facilities, while the  
23 hybrid DS1 (A.20.1) is purely fiber and is longer in length since, in the BSTLM,  
24 DS1s are provisioned on fiber-fed digital loop carrier systems ("DLCs") only if the  
25 DS1 loop length is greater than 12,000 feet. In fact, the average length of the DS1

1 sub-loop (A.9.2) is 10,407 feet while the average length of the hybrid DS1 (A.20.1)  
2 is 21,029 feet.

3

4 Mr. Darnell's contention on page 18 of his testimony that the inclusion of a portion  
5 of the remote terminal costs violates TELRIC principles because the remote  
6 terminal is "scorched" is incorrect. In a long-run study, such as a TELRIC study,  
7 all costs are considered variable, i.e., that they will exhaust. Since the deployment  
8 of the Hybrid Copper/Fiber loop utilizes components of the remote terminal, they  
9 are appropriately considered in the cost development.

10

11 Finally, without any evidence, Mr. Darnell alleges that; "the material prices (i.e.  
12 DSLAM, Hub Bay and DS1 Card) and installation times (i.e. service inquiry) that  
13 BellSouth has used for the development of proposed DSLAM recurring and non-  
14 recurring rates do not reflect those of a forward looking, least cost  
15 telecommunications service provider." (Darnell Testimony, Page 18, Lines 21-25)  
16 Since Mr. Darnell did not provide an example of what he believes are "forward  
17 looking, least cost" rates I cannot specifically address his concerns. Thus, I can  
18 only state that the cost study accurately reflects the product description provided by  
19 the product team and the equipment and labor resources identified by subject  
20 matter experts in BellSouth's Network department.

21

22 In preparing the cost study that was filed on November 8, 2001, the Final Cost  
23 Summary failed to reflect the total System, DS1, and Activation costs associated  
24 with the Hybrid Copper/Fiber Loop; i.e., the individual components were not  
25 summed. Exhibit DDC-3\_120 Day, filed on a separate CD, explains how to

1 manually correct the rate list file, contains a corrected rate list file, and includes the  
2 revised Final Cost Summary. A paper copy of the revised Final Cost Summary is  
3 also attached to my testimony.

4

5 **“BOTTOMS-UP INPUTS”**

6 **LOADING FACTORS**

7 **Q. MR. PITKIN CONTENDS THAT BELLSOUTH’S MATERIAL LOADING**  
8 **FACTORS ARE OVERSTATED. (PAGES 8-12) IS HE CORRECT?**

9

10 A. No. First, he alleges that because these ratios are developed based on historical  
11 data that makes their application embedded. That is not true. The Miscellaneous  
12 Material loading factor develops a relationship between exempt material and non-  
13 exempt material. Thus, when these factors are applied to forward-looking material  
14 prices the result is forward-looking. Mr. Pitkin also criticizes BellSouth for using  
15 only one-year’s worth of data. This criticism is also unfounded. By using the  
16 latest data available at the time of the study’s filing, the resulting factors are the  
17 best indication of future trends.

18

19 Both Mr. Donovan and Mr. Pitkin advocate the inclusion of exempt material cost  
20 in the labor rates. In addition, Mr. Donovan throws out an unsupported cap on his  
21 proposed Exempt Material load on labor rates of 20%. Besides being arbitrary,  
22 Mr. Donovan’s method is inappropriate. Exempt material varies by field reporting  
23 code; the amount of exempt material associated with aerial placements is not the  
24 same as buried or underground placements. Furthermore, the amount of exempt  
25 material associated with cable provisioning varies vastly between copper and fiber



1 placements. On the other hand, labor rates do not vary. A splicer is paid the same  
2 per hour whether he is splicing aerial, buried, or underground cable. Mr.  
3 Donovan's method distorts these facts. Thus, BellSouth's use of the ratio of  
4 exempt to non-exempt material produces representative results.

5

6 **Q. MR. PITKIN ASSERTS THAT "BECAUSE THE BSTLM EXPLICITLY**  
7 **MODELS THE COSTS OF NIDS AND DROPS, THE EXEMPT MATERIAL**  
8 **LOADING FACTOR SHOULD EXCLUDE THESE ITEMS." (PAGE 10,**  
9 **LINES 12-13) IS THIS TRUE?**

10

11 A. No. Mr. Pitkin pulls a quote from my reply affidavit filed in connection with  
12 BellSouth's current application with the FCC to provide in-region long distance  
13 service. The affidavit, however, fully explains why he is wrong. As I stated:

14

15 The labor-related costs of placing service drop wires and the  
16 associated NIDs are assigned to Asset Category Code ("ACC") 248  
17 (Aerial cable - Metallic Drop) and ACC 548 (Buried Cable -  
18 Metallic Service Drop). The material costs of the service drop  
19 wires and associated NID units are classified to exempt material.  
20 The cost of exempt material, however, is distributed as part of the  
21 monthly allocations process to the various ACCs (including ACC  
22 248 and ACC 548) based on the direct labor dollars associated with  
23 each ACC. In the development of in-plant factors for ACC 022  
24 (Aerial Cable - Metallic) and ACC 045 (Buried Cable - Metallic),  
25 BellSouth does not include any of the assignments to ACC 248 or  
ACC 548. Therefore, the costs of placing service drops and NIDs  
are not reflected in the in-plant factors. (Caldwell Reply Affidavit,  
CC Docket 01-277, ¶ 37, emphasis added)

23

24 Again, BellSouth excluded ACCs 248 or 548, the asset accounts containing  
25 NID/drop costs, in the development of the material loading factors. Thus, Mr.

1 Pitkin's claim is without merit.

2

3 Q. MR. DONOVAN STATES THAT "EXEMPT MATERIAL IS ALREADY  
4 INCLUDED IN THE FULLY LOADED LABOR RATE PROPOSED BY  
5 BELLSOUTH." (PAGE 53, LINES 6-7) PLEASE COMMENT.

6

7 A. Mr. Donovan is wrong. The following extract from the original cost study  
8 narrative (Section 5) filed in this docket details the categories of costs included in  
9 the labor rates:

10

DIRECT SALARIES AND WAGES

11

1. Direct Labor - Productive (RESOURCE TYPE CODE (RTC) 111, 121)

12

Represents the wage and salary costs associated with work reporting employees for regularly scheduled time and overtime spent performing productive work. Also includes the costs of salaries paid to management employees when performing productive work. Classified and unclassified productive hours are used as the basis for Direct Labor Costs.

13

14

15

2. Direct Labor - Premium (RTC 122)

16

Represents the wage and salary costs associated with premium hours paid for hours worked beyond the normally scheduled work period.

17

3. Direct Labor - Other Employee (RTC 199, 19B, 19C, 193)

18

Covers the costs associated with the periodic incentive compensation payments made to management employees based on corporate service and financial performance, the annual bonus paid to non-management employees, all costs associated with commissions paid to employees, cash awards paid for any approved program, etc.

19

20

21

4. Direct Labor - Annual Paid Absence (RTC 132, 19E)

22

Identifies the cost of payments to be made over the year to occupational work reporting employees for accrued costs of holidays, vacations, and excused days.

23

24

5. Direct Administration (RTC 111, 121, 122, 199, 19B, 19C, 19E, 193, 132)

25

Identifies the costs of salaries paid during the month to the first level of supervision responsible for supervising occupational work reporting employees, and salaries and wages paid to employees and immediate supervisors who perform

1 basic office services for occupational work reporting employees. Also included  
 2 are the wages paid to occupational work reporting employees loaned to perform  
 supervisory or clerical functions.

3 6. Other Tools - Salaries (RTC COR)

Identifies the salary portion of the distributed costs associated with tools.

4  
 5 7. Motor Vehicles - Salaries (RTC COM)

Identifies the salary portion of the plant motor vehicle expenses distributed to  
 6 construction, removal or plant specific operations expense accounts based on the  
 classified productive hours of the labor groups using the motor vehicles.

7  
OTHER DIRECT

8 1. Direct Labor - Other Costs (Various RTCs)

Identifies the costs incurred for office, traveling and other costs of employees  
 9 whose wage and salary costs are direct labor.

10 2. Other Tools - Benefits (RTC COS)

Identifies the distributed benefits costs associated with tools.

11  
 12 3. Other Tools - Rents (RTC COK)

Identifies the distributed rent costs associated with tools.

13  
 14 4. Other Tools - Other (RTC COL)

Identifies the distributed other expense costs associated with tools.

15 5. Motor Vehicles - Benefits (RTC CON)

Identifies the benefits portion of the plant motor vehicle expenses distributed to  
 16 construction, removal or plant specific operations expense accounts based on the  
 17 classified productive hours of the labor groups using the motor vehicles.

18 6. Motor Vehicle - Rents (RTC COP)

Identifies the rents portion of the plant motor vehicle expenses distributed to  
 19 construction, removal or plant specific operation expense accounts based on the  
 20 classified productive hours of the labor groups using the motor vehicles.

21 7. Motor Vehicle - Other (RTC COO)

Identifies the other costs portion of the plant motor vehicle expenses distributed to  
 22 construction, removal or plant specific operations expense accounts based on the  
 23 classified productive hours of the labor groups using the motor vehicles.

24 8. Benefits (RTC KB1)

Identifies amounts for the payroll related benefits and taxes. These costs include  
 25 pension accruals; company matching portion of savings plan; dental, medical, and

1 group insurance plan reimbursements; and company portion of social security and  
2 unemployment payroll taxes.

3 As can be ascertained from reviewing this list, exempt material is not included.

4 On page 54, Mr. Donovan also claims "direct supervision and other indirect  
5 expenses are already components of BellSouth's fully loaded labor rate." While it  
6 is true that direct supervision is included in the labor rates, it is not included in the  
7 Other - Indirect factor created for this filing. As explained in Appendix B,  
8 Attachment 5 of the cost study filed on November 8, 2001, the salaries, benefits,  
9 and other indirect costs are for "supervision and support **above the first level of**  
10 **work reporting plant labor employees.**" (Emphasis added) These costs are not  
11 direct supervision costs, as Mr. Donovan claims.

12  
13 **Q. IN DISCUSSING THE INTEREST DURING CONSTRUCTION**  
14 **COMPONENT OF THE OTHER FACTOR, MR. DONOVAN STATES**  
15 **"BELLSOUTH INPUTS HAVE MISAPPLIED SUCH A CHARGE IN THIS**  
16 **CASE." (PAGE 55, LINES 2-3) IS HIS CLAIM CORRECT?**

17  
18 A. No. BellSouth adheres to the rules outlined by the Federal Communications  
19 Commission ("FCC") Part 32 Rules and Regulations that discusses such costs as  
20 described below:

21  
22 FCC Part 32 Rules 32.2000 (c)

23 (1) Telecommunications plant represents an economic resource  
24 which will be used to provide future services, the cost of which  
25 will be allocated in a rational and systematic manner to the future  
periods in which it provides benefits. In accounting for  
construction costs, the utility shall charge to the

1 telecommunications plant accounts, where applicable, all direct  
and indirect costs.

2 (2) Direct and indirect costs shall include, but not be limited to:

3 ... (x) Allowance for funds used during construction  
4 ("AFUDC") provides for the cost of financing the construction of  
5 telecommunications plant. AFUDC shall be charged to Account  
6 2003, Telecommunications Plant Under Construction, and credited  
7 to Account 7340. The rate for calculating AFUDC shall be  
8 determined as follows: If financing plans associate a specific new  
9 borrowing with an asset, the rate on that borrowing may be used  
10 for the asset; if no specific new borrowing is associated with an  
11 asset or if the average accumulated expenditures for the asset  
12 exceed the amounts of specific new borrowing associated with it,  
13 the capitalization rate to be applied to such excess shall be a  
14 weighted average of the rates applicable to other borrowing of the  
15 enterprise. The amount of interest cost capitalized in an  
16 accounting period shall not exceed the total amount of interest cost  
17 incurred by the company in that period.

18 Mr. Donovan offers no support for his criticism. Furthermore, Interest During  
19 Construction constitutes a small fraction of the sum of the Other loading factor.

20 Also, the source of the data used in the development of these "bottoms-up" factors  
21 is the same source as originally used in the development of the in-plant factors – a  
22 1998 base year extract from the Resource Tracking Analysis and Planning  
23 ("RTAP") system. Thus, no new system, extract, or methodology was used to  
24 gather the data needed to develop this factor.

25 **Q. MR. PITKIN CLAIMS THAT "BELLSOUTH USES INFLATION RATES  
THAT ARE TOO HIGH AS WELL AS UNRELIABLE." (PAGE 12, LINE  
15) PLEASE COMMENT.**

A. This Commission has extensively reviewed the inputs and methodology used by  
BellSouth to account for changes in the price of goods in this proceeding. In fact,

1 the Commission's decision with respect to the application of inflation factors was a  
2 specific issue for which BellSouth sought reconsideration. Thus, the Commission  
3 not only reviewed inflation factors in issuing its original order, but also reviewed  
4 them again as part of BellSouth's request for reconsideration. In Order No. PSC-  
5 01-2051-FOF-TP, this Commission stated: "we hereby reconsider our decision to  
6 reject BellSouth's proposed inflation factor, because it was based upon a  
7 misinterpretation of the facts presented." (Page 5) Thus, this Commission has  
8 ruled that BellSouth's inflation factors, as originally filed, are appropriate.

9  
10 Mr. Pitkin claims that "BellSouth has provided no information supporting its  
11 development of these inflation factors." (Pitkin Testimony, Page 13, Lines 3-4)  
12 Mr. Pitkin is wrong. BellSouth has provided the spreadsheet used to develop its  
13 inflation factors as part of the original cost study filed in this docket, file  
14 InfnLv2.xls. Additionally, BellSouth has responded to data requests in this docket  
15 concerning inflation factor development and application. Indeed, in response to  
16 Staff's 10<sup>th</sup> set of interrogatories/ production of documents ("PODs"), BellSouth  
17 provided the back up to the development of these factors. (POD Item #94) In fact,  
18 it is Mr. Pitkin who offers no evidence or support for his inflation factors beyond a  
19 vague reference to C. A. Turner Telephone Plant Indices. Further, Mr. Pitkin's  
20 "inflation factors" as shown in Exhibit BFP-5 do not even differentiate by field  
21 reporting code. To imply that computer equipment (530C), a declining account,  
22 and copper cable, increasing accounts, experience the same trend in material prices  
23 is simply wrong. Further, to present an almost 5% decline for 2000 for any  
24 account makes little sense. Exhibit DDC-4\_120 Day illustrates the actual trend in  
25 cable-related accounts for 1995-1997. (This is an extract from the Inflation Factor

1 Methodology contained in the BellSouth Cost Calculator. Also, refer to  
2 BellSouth's response #105 to the Staff's 7<sup>th</sup> Set of Interrogatories.) Note that with  
3 the exception of the digital carrier equipment (357C), not one of the accounts  
4 reflects an overall decrease of 5%. It is improbable that from 1998-2000 the trends  
5 would change dramatically. In reviewing Mr. Pitkin's comparison of inputs,  
6 Exhibit BFP-7, it is interesting to note that he uses different inflation factors for  
7 different accounts, but never explains how he transitions from one exhibit to the  
8 other. For these reasons, Mr. Pitkin's concerns are unfounded and his proposed  
9 adjustments should be ignored.

10

11 **OTHER BSTLM "BOTTOMS-UP" INPUTS**

12 **Q. ON PAGES 11 THROUGH 16 OF MR. DONOVAN'S TESTIMONY, HE**  
13 **DISCUSSES BELL SOUTH'S ENGINEERING FACTORS USED IN ITS**  
14 **FILING. PLEASE COMMENT.**

15

16 **A.** First, Mr. Donovan claims that "BellSouth has ignored the Commission's FL  
17 UNE Order, and has filed costs using a linear Engineering Factor." (Donovan  
18 Testimony, Page 11, Lines 4-5) I disagree with Mr. Donovan. The underlying  
19 premise of this 120-day proceeding was that since BellSouth had a model (the  
20 BSTLM) with the functionality to do a bottoms-up study, BellSouth should  
21 make use of that functionality so as to allow the Commission to compare the  
22 results produced using that methodology with those produced using in-plant  
23 factors currently adopted by the Commission.

24

25 The BSTLM, as originally filed, was designed to calculate engineering as a

1 percentage of non-exempt material in the same manner as the BellSouth Cost  
2 Calculator functions. However, upon embarking on the Commission-ordered  
3 bottoms-up study, BellSouth discovered that the BSTLM contained only one  
4 engineering factor that would be applied to all categories of plant. While  
5 modifying the model to allow for multiple engineering factors for various plant  
6 types, BellSouth attempted to add modifications to make the engineering expense  
7 less linear by reflecting engineering costs as a factor of material and installation  
8 costs.

9

10 **Q. ON PAGE 16, MR. DONOVAN FINALLY RECOMMENDS TO THE**  
11 **COMMISSION THAT AN ENGINEERING FACTOR OF 10% BE**  
12 **USED. PLEASE COMMENT.**

13

14 A. The 10% is an arbitrary factor selected by Mr. Donovan simply because the Federal  
15 Communications Commission ("FCC") uses that figure in its universal service model.  
16 He provides no other support for using 10%. Mr. Donovan states that BellSouth, as a  
17 co-sponsor of the BCPM advocated the use of an engineering component of 5% of  
18 outside plant costs. While it is true the BCPM was populated with a 5% default value,  
19 BellSouth did not use that input when running the model. In fact, BellSouth does not  
20 use a 5% engineering factor in any of its UNE, retail service, or universal service  
21 (BCPM) cost studies. In all of these situations, engineering costs have been captured  
22 through in-plant factors developed as a percentage of material costs. The engineering  
23 factors used by BellSouth in the "bottoms-up" study reflect values consistent with  
24 previously used in-plant factors.

25



1 A. MR. DONOVAN CLAIMS THAT BELLSOUTH IS ATTEMPTING TO  
2 RECOUP NON-TELRIC EXPENDITURES THROUGH A "CLOSING  
3 FACTOR" SPREAD OVER ALL STRUCTURE COSTS. (PAGE 18) IS  
4 HE CORRECT?

5

6 A. Absolutely not. BellSouth developed outside plant contractor costs by  
7 reviewing the actual activity occurring in Florida and developing BSTLM  
8 inputs based on those activities. It is true that BellSouth included  
9 miscellaneous contractor costs totaling 25.43% of costs. These are real costs  
10 that are often overlooked in other proxy models such as the HAI and the FCC's  
11 Synthesis Model. However, as Mr. Kephart explains, these are legitimate  
12 costs, and they certainly belong in a TELRIC study. A complete list of all  
13 miscellaneous items was included in Attachment 3 to BellSouth's bottoms-up  
14 filing (CostCode Misc).

15

16 Q. MR. DONOVAN STATES THAT BELLSOUTH HAS INCORRECTLY  
17 ASSIGNED RESTORATION COSTS ONTO "BURIED CABLE" AND  
18 "BORE BURIED CABLE" ACTIVITIES RATHER THAN  
19 REFLECTING THOSE COSTS UNDER THE PROPER CATEGORIES  
20 IN THE BSTLM. (PAGE 23) DO YOU AGREE?

21

22 A. No. While Mr. Donovan seems to agree that these restoration costs are  
23 appropriate costs to include in the bottoms-up study, he appears to disagree  
24 with the manner in which BellSouth has spread those costs over buried cable  
25 placement and boring costs. Rather than argue about subject matter expert

1 based estimates in the BSTLM of how often these restoration costs actually  
2 occur, BellSouth chose to spread these costs out over buried cable placements,  
3 underground placements, buried boring and underground boring to develop the  
4 average placement costs based upon what actually occurred in Florida. If one  
5 accepts Mr. Donovan's argument, that restoration costs should not be  
6 associated with boring and chooses to spread all restoration costs over the  
7 remaining excavation activities (less boring), the result is an increase in the  
8 costs of those remaining activities. That is apparently what Mr. Donovan has  
9 recommended since costs in the urban and suburban zones increase after his  
10 modifications. However, BellSouth's proposed method of recovering these  
11 restoration costs is a straightforward accurate method that reflects actual data  
12 and should be adopted by this Commission.

13

14 **Q. ON PAGE 25, MR. DONOVAN CONTENDS THAT BURIED SPLICE**  
15 **PIT COSTS BE EXCLUDED FROM THE STUDY. IS HE CORRECT?**

16

17 **A. No. Mr. Donovan states that buried splice pits are not needed for normal buried**  
18 **splicing operations because such splices are routinely placed in above ground**  
19 **pedestals. Further, he states that since pedestals are exempt materials, all such**  
20 **costs should be excluded from the study. First, the actual data, i.e., the 2000**  
21 **contractor activity in Florida (Attachment 3 of BellSouth's filing), clearly shows**  
22 **that costs associated with buried splice pits, including digging, shoring and other**  
23 **costs, do occur. Furthermore, even if the Commission were to accept Mr.**  
24 **Donovan's recommendation that all buried splices should occur above ground in**  
25 **pedestals, he has not accounted for all of the costs in his proposed inputs. While**

1 the pedestal material would be captured through the Miscellaneous Material  
2 loading (i.e., the exempt material is calculated), the labor associated with placing  
3 the pedestal is not currently reflected in the model. These pedestal placing costs  
4 would need to be identified and included in the BSTLM costs.

5

6 **Q. MR. DONOVAN, ON PAGE 25, CLAIMS THAT BELL SOUTH SHOULD**  
7 **HAVE INCLUDED THE COST OF STEEL PIPE, PVC PIPE AND FLEX-**  
8 **PIPE IN WITH THE "PUSH PIPE AND PULL CABLE" CATEGORY OF**  
9 **COSTS RATHER THAN SPREADING THE COST OF SUCH PIPE OVER**  
10 **THE TOTAL BORING ACTIVITY COSTS. DO YOU AGREE?**

11

12 A. No. BellSouth's approach is based upon the contract, which lists the referenced  
13 Steel Pipe, PVC pipe, and Flex pipe as added costs in the Bidding Agreement.  
14 That is, these are actual incurred costs as a result of directional boring. As a result,  
15 BellSouth loaded these added costs appropriately into the boring activity. This  
16 resulted in every foot of boring assuming a fraction of pipe costs (less than 25%).  
17 This is a reasonable and factually based approach for identifying the pipe costs. It  
18 does not imply that every foot of boring requires a pipe of some sort. Mr.  
19 Donovan prefers to identify the cost of the pipe in the push pipe pull cable  
20 category, in reality ignoring the contractual facts. In effect, Mr. Donovan's  
21 approach is not based on fact and will result in inaccuracies. BellSouth sees no  
22 reason for the Commission to require that BellSouth re-do its cost studies with Mr.  
23 Donovan's approach since it is not factually based and is less accurate than  
24 BellSouth's method.

25

1 Q. MR. DONOVAN, ON PAGE 30 OF HIS TESTIMONY, STATES THAT HE  
2 WAS UNABLE TO DETERMINE HOW BELL SOUTH WENT FROM ITS  
3 PROPOSED CONDUIT MATERIAL COST PER FOOT PLUS THE 25.43%  
4 MISCELLANEOUS LOADING TO THE INPUT VALUES USED IN THE  
5 BSTLM FOR CONDUIT MATERIAL COST. CAN YOU EXPLAIN?

6

7 A. Yes. The attached exhibit to this testimony, Exhibit DDC-5\_120 Day, displays the  
8 development of a factor applied to the conduit material costs.

9

10 Q. WHY IS THIS LOADING APPROPRIATE?

11

12 A. The miscellaneous material, sales tax, supply expense, and other loadings factors,  
13 which provide for exempt material, sales tax, right of way, indirect plant labor,  
14 interest during construction, etc., are developed as a ratio of non-exempt material  
15 for all plant categories. The BSTLM then applies these factors to non-exempt  
16 material computed by the model. However, BellSouth used the contracted conduit  
17 costs as input into the model. The BSTLM, as currently constructed, places all  
18 contractor costs into the EF&I columns in the model. Since these Conduit (and for  
19 that matter, Manhole) material costs do not appear in the BSTLM's material fields,  
20 the miscellaneous factor is not applied. Hence, if the miscellaneous loading  
21 factors were applied to the conduit account (4C) as it applies to other accounts, the  
22 factor would be multiplied by \$0 material costs and miscellaneous costs would not  
23 be captured. Therefore, to properly capture these incurred miscellaneous material  
24 costs for conduit, BellSouth developed a miscellaneous loading factor for Field  
25 Reporting Code ("FRC") 4C as a percentage of total contractor installation costs

1 (which includes labor and material) and then applied these factors to the contractor  
2 conduit costs (which include labor and material) outside of the BSTLM to properly  
3 compute conduit miscellaneous costs. BellSouth's 40% factor for these loadings is  
4 based on calculations set forth in Exhibit DDC-5\_120 Day. This 40% value is  
5 conservative and approximately equals the data for 1998. As can be seen on DDC-  
6 5\_120 Day, if later data had been used the factor would have been even higher  
7 (49%).

8  
9 In fact, in reviewing the above noted Conduit loading approach, BellSouth  
10 discovered that it failed to apply the proper loading to the smaller manhole sizes  
11 (1, 2, and 3) and to the underground excavation labor. Since the 4C loading was  
12 based upon incurred contractor costs (material and labor), BellSouth intended to  
13 apply it to all contractor costs. However, inadvertently the factor was only applied  
14 to Conduit and the largest manhole. Thus, in effect BellSouth understated its  
15 miscellaneous material costs associated with smaller sized manholes and all  
16 underground excavation costs in the filed cost study. This error has been corrected  
17 in the January 28, 2002 filing in order to accurately reflect the costs associated  
18 with underground excavation and structure.

19  
20 **Q. ON PAGES 33 AND 34, MR. DONOVAN RECOMMENDS THAT**  
21 **BELLSOUTH'S PROPOSED STRUCTURE SHARING PERCENTAGES**  
22 **BE REJECTED AND REPLACED WITH HIS PROPOSED SHARING**  
23 **FACTORS. ARE HIS PROPOSALS REALISTIC AND APPROPRIATE**  
24 **FOR THE COMMISSION TO ADOPT?**

25

1 A. No, they are not realistic and should not be adopted by this Commission.  
2 BellSouth witness Mr. Kephart explains why Mr. Donovan's proposed inputs are  
3 inappropriate. However, I will comment on his claim that BellSouth is "creating  
4 severe barriers to entry" based on the amount structure sharing assumed in the cost  
5 study. (Donovan Testimony, Page 33, Line 16) Mr. Donovan compares BellSouth  
6 cost study assumption that only .07% of conduit space is leased to Verizon's claim  
7 that "more than 30 different companies occupy its conduits in Manhattan" to arrive  
8 at his faulty conclusion. (Donovan Testimony, Page 33, Lines 14-15) First, it is  
9 not valid to compare the entire state of Florida to Manhattan. Customer density  
10 and dispersion and intensity of competition are very different between the two  
11 areas. Second, without further information, it is impossible to know exactly what  
12 Verizon was discussing. In other words, does the "30 different company" figure  
13 reflect actual leasing arrangements in duct space in Verizon-owned conduit,  
14 sharing of costs and ownership of underground excavation and conduit systems  
15 with other companies, or merely access to conduit systems through the purchase of  
16 unbundled elements?  
17 Leasing of duct space is not the same as sharing the construction cost and  
18 ownership of conduit. Duct leasing is included in BellSouth's studies in the  
19 Conduit Plant-Specific factor. Expenses associated with BellSouth leasing duct  
20 space in other parties' ducts are netted with revenues received from other parties  
21 leasing BellSouth owned ducts and included in the conduit (4C) plant-specific  
22 expenses. BellSouth used the percentage of duct space leased to other parties in  
23 Florida as a surrogate of potential opportunities for underground structure sharing.  
24 In effect, Mr. Donovan's proposal will double count the actual sharing since he  
25 made no adjustment to the expense factors which already reflect sharing of

1 structures. As Mr. Kephart explains, Mr. Donovan's recommendation of assuming  
2 a 50%/50% sharing in rural density zones is completely unrealistic and the  
3 33%/33%/33% sharing in suburban and urban density zones is even less credible.  
4 Such sharing assumptions along with the double counting would clearly result in a  
5 significant under-recovery of a major portion of BellSouth's investments.

6

7 **Q. EXHIBIT BFP-8F REFLECTS A 50% REDUCTION TO MANHOLE**  
8 **MATERIAL AND PLACING COSTS. IS THIS APPROPRIATE?**

9

10 A. No. The implication of such an adjustment is that BellSouth and the ALEC jointly  
11 own the structure (i.e., the manhole). To my knowledge, no FCC or Commission  
12 rule mandates that BellSouth "sell" a piece of the network to an ALEC. Further, if  
13 BellSouth were to share in the material cost of the manhole, it implies that the  
14 ALEC would have a free reign to go and come as it pleases. This "joint  
15 ownership" arrangement is unmanageable, a security risk, and as stated previously,  
16 is not required by any Commission or FCC order. From a cost perspective, the  
17 only appropriate sharing of underground structures occurs on a very limited basis  
18 through the leasing of conduits. Further, it is my understanding that the BSTLM  
19 sizes the manhole based only upon BellSouth's conduit demand. This sizing  
20 routine does not incorporate any conduits "owned" by ALECs. Thus, if Mr. Pitkin  
21 wishes to adjust the manhole price for sharing, he must also adjust the manhole  
22 sizing routine in the BSTLM, something he has not done. Therefore, Mr. Pitkin's  
23 50% adjustment to the manhole material price is totally inappropriate and should  
24 be discarded by this Commission.

25

1 Q. MR. DONOVAN CLAIMS ON PAGES 30-32 THAT THE MANHOLE  
2 COST DEVELOPMENT IS FLAWED. FROM A COST DEVELOPMENT  
3 PERSPECTIVE, CAN YOU RESPOND?

4

5 A. Yes. Mr. Donovan states, on pages 31 and 32, that BellSouth distributed the costs  
6 of 207 manhole covers and collars over 7 installed manholes. While this is  
7 mathematically correct, one must consider that it was BellSouth's aim in the input  
8 development to create simple, understandable, and supportable inputs. In regard to  
9 Manhole costs, BellSouth originally chose to use cubic feet as the approach to  
10 develop costs. Thus, all incurred manhole costs were divided by the installed  
11 cubic feet. In most areas and circumstances this simple method is appropriate.

12

13 If the Commission finds that BellSouth's approach is improper, then it still should  
14 not accept Mr. Donovan's inputs. In fact, Mr. Donovan failed to recognize that  
15 BellSouth's simplified inputs also resulted in a "distortion" of the costs for large  
16 manholes (Size 5) and the smaller manholes (Sizes 1, 2 and 3). According to the  
17 contract, BellSouth incurs a much lower per cubic foot cost for the larger manholes  
18 (above 351 cubic feet) than for smaller manholes (under 351 cubic feet). Thus, if  
19 the Commission attempts to override BellSouth's simplified inputs on the manhole  
20 covers, it must also take the step of applying the appropriate contractor costs for  
21 the size of the manhole.

22

23 Q. IF THE COMMISSION DECIDES TO IMPLEMENT MR. DONOVAN'S  
24 METHODOLOGY, DO YOU HAVE ANY RECOMMENDATIONS?

25



1 A. Yes. Given the findings stated above (and BellSouth's failure to accurately apply  
 2 the Miscellaneous loading factor, discussed previously) the following tables reflect  
 3 the development of the inputs that should be used. These values are based upon  
 4 the actual contractor incurred costs, the appropriate size manholes, the use of one  
 5 (1) cover and collar per manhole (as Mr. Donovan advocates), and the proper  
 6 application of the miscellaneous material loading.

7

8 **Unit Cost Development from Contractor Table**

9 (Attachment 3 of Appendix B of BellSouth's Cost Study details)

Contract Unit Cost	Source (see descriptions below table)	Applicable Manhole sizes	Contractor costs with Miscellaneous loading (Column a *(1+0.2543))	Contractor costs with miscellaneous loading and miscellaneous material loading (Column d *(1+0.4))
\$ 48.06	1	351 cu.ft. <	\$ 60.28	\$ 84.39
\$ 16.90	2	>= 351 cu.ft.	\$ 21.20	\$ 29.68
\$ 246.48	3		\$ 309.16	\$ 432.82

16

Sources:

- 17 1: Per Cubic Foot based on M031A value in State Total sheet of the Contractor tables  
 18 2: Per Cubic Foot based on M031B value in State Total sheet of the Contractor tables  
 19 3: Per Cover costs developed as the sum of total incurred cover costs divided by the number of covers using M045-M056 entries in the State Total sheet of the Contractor tables

20

21

22 **BSTLM Input Development**

23

24

25

26

Conduit Size	Manhole Dimensions	Manhole Cubic Feet (based on Column b)	Applicable Cubic Foot Costs	Manhole costs based on Total Cubic Feet (Column c * Column d)	Manhole Cover Costs	BBLTM Underground Contract Labor Inputs: Total Manhole Cost with Cover (Column e + Column f)
1	3'4"6	72	\$ 84.39	\$ 6,078.39	\$ 432.82	\$ 6,509.21
2	3'4"6	72	\$ 84.39	\$ 6,078.39	\$ 432.82	\$ 6,509.21
3	4'8"7	224	\$ 84.39	\$ 18,904.33	\$ 432.82	\$ 19,337.15
5	6'12"7	502	\$ 29.68	\$ 14,897.72	\$ 432.82	\$ 15,330.54

BellSouth's revised cost study dated January 28, 2002 reflects the inputs shown in the above table.

**Q. MR. DONOVAN, ON PAGES 36 AND 37 STATES THAT BELLSOUTH'S POLE SPACING "DOES NOT APPEAR TO PASS THE 'RED-FACE' TEST." ADDITIONALLY, HE PROPOSES THAT SPACING FOR ANCHORS AND GUYS IS 1,200 FEET RATHER THAN THE VALUE OF 500 FEET RECOMMENDED BY BELLSOUTH. PLEASE COMMENT.**

A. Mr. Donovan notes that none of the BCPM, HAI and HCPM default values for pole spacing are less than 150 feet. As Mr. Donovan points out, BellSouth had previously also agreed with pole spacing defaults used in the BCPM. However, upon analysis of the number of poles owned by BellSouth in Florida, the number of poles owned by power companies in Florida to which BellSouth cable is attached, and the number of sheath feet of aerial cable in Florida, the facts clearly

1 reveal that these other model default values are understated. Clearly, some span  
2 lengths may be 150, 200 or 250 feet depending on the size cables carried on the  
3 span and a host of other factors. However, there are also those areas of the  
4 network - for example, a road intersection with multiple cable routes intersecting -  
5 where there are several poles at various corners of the intersection all in close  
6 proximity to one another. While BellSouth agrees it is a simple task to ride in  
7 one's car for a mile and count poles per mile, as Mr. Donovan suggests, this is in  
8 no way superior to basing cost study inputs on real data. Spacing for both poles  
9 and manholes are actually "designed" for each installation. For example, mid-span  
10 clearances, joint use clearances, and right-of-way limitations drive most of the  
11 design requirements for poles. Installations have unique characteristics for these  
12 elements. In this case, the data speaks for itself - BellSouth's pole spacing of 120  
13 feet is an accurate depiction of the reality of the number of poles required to  
14 provide the number of sheath feet of aerial cable placed in the network and should  
15 be accepted by the Commission.

16  
17 BellSouth does not maintain records of the number of anchors and guys used, so an  
18 approach to determine average spacing similar to that taken for poles was not  
19 possible. Furthermore, the 1,200 foot anchor and guy spacing included as a filler  
20 in the BSTLM was never modified or evaluated since BellSouth had no intention  
21 of using that variable prior to this Commission's order for a bottoms-up study. To  
22 refer to that value of 1,200 feet as a "default", as Mr. Donovan does, implies that it  
23 is a recommended value when it certainly was not.

24

25 Spacing distances were previously reviewed and approved by the Florida Public

1 Service Commission in the Universal Service proceeding, Docket No. 980696-TP.

2

3 Furthermore, we reiterate that this is a model, and every spacing  
4 scenario cannot be duplicated. We find that territory-specific  
5 pole spacing, guy spacing, and relative pole units are appropriate  
6 and recommend accepting the values as submitted by GTEFL  
7 and BellSouth. (Order No. PSC-99-0068-FOF-TP, Page 114)

6

7 In an effort to provide more accurate data, BellSouth sought when possible to  
8 supplement data previously approved by the Commission with actual data and  
9 mathematically derive inputs. Therefore, ARMIS data was used to determine the  
10 average spacing of poles. Since no such data exists for anchors and guys,  
11 BellSouth relied on these previously reviewed and approved inputs from the  
12 BCPM model. Since the BSTLM does not provide for spacing by density zones,  
13 averages of all densities were used from the BCPM to derive spacing for the  
14 anchors/guys.

15

16 **Q. MR. PITKIN'S EXHIBIT BFP-7 REDUCES BELL SOUTH'S MATERIAL**  
17 **COSTS FOR POLES FROM \$300.16 TO \$239.31. IS THIS CONSISTENT**  
18 **WITH TESTIMONY FILED ON BEHALF OF AT&T?**

19

20 A. No. In fact, Mr. Donovan makes "no issues or recommendations" in his testimony  
21 with regard to aerial structure material costs. (Donovan Testimony, Page 20, Line  
22 1) Further, Mr. Pitkin does not provide justification for this reduction. Thus,  
23 based on this unsupported modification and the numerous other erroneous  
24 adjustments advocated by Mr. Donovan and Mr. Pitkin, the Commission should  
25 ignore the results of Mr. Pitkin's BSTLM run.

1

2 **Q. HAVE THE LOGIC CHANGES TO THE BSTLM REFERENCED IN MR.**  
3 **PITKIN AND MR. STEGEMAN'S TESTIMONIES BEEN**  
4 **INCORPORATED IN THE JANUARY 28, 2002 REVISED FILING?**

5

6 A. Yes. The two applicable logic changes are reflected in this revised filing.  
7 Specifically, the cell reference problems with the fiber cable EF&I calculation and  
8 with the structure sharing calculation have been made.

9

10 **Q. HAS BELL SOUTH MADE ANY OTHER REVISIONS TO THE COST**  
11 **CALCULATIONS IN THE JANUARY 28, 2002 FILING?**

12

13 A. Yes. BellSouth also modified the Hybrid Copper/Fiber Loop costs to modify work  
14 times. In my direct testimony I stated that commission-ordered reductions to work  
15 times were considered. While this is true for the unbundled network elements  
16 previously reviewed by the Commission, BellSouth failed to consider all of these  
17 modifications in the Hybrid Copper/Fiber loop costs. Thus, in accordance with the  
18 Commission's previous ruling, the applicable work times were reduced.  
19 Additionally, input errors in the location lives were corrected.

20

21 Finally, the Feeder/Distribution Interface ("FDI") input to the BSTLM was revised.  
22 BellSouth uses contractors to place FDIs with placement costs dependent upon the  
23 weight of the equipment being installed. The BSTLM, however, assumes that the  
24 TELCO place the FDI. Thus, BellSouth had to convert contractor costs to TELCO  
25 placement hours, the BSTLM required input. In performing this conversion

1 calculation, BellSouth made a mathematical error, overstating the placement hours.

2 This has been corrected.

3

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

5

6 A. Yes.

7

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25

1 BY MR. SHORE:

2 Q Ms. Caldwell, have you prepared a summary of your  
3 testimony?

4 A Yes, I have.

5 Q Would you please give that.

6 A Okay. Good afternoon. In the first phase of this  
7 proceeding, the Commission established cost-based rates for an  
8 extensive list of unbundled network elements and combinations.  
9 In its order, however, the Commission required BellSouth to  
10 file additional cost studies within 120 days. My testimony  
11 addresses those cost studies. BellSouth used its 120-day cost  
12 study -- or have used in its 120-day cost study the inputs  
13 ordered by the Commission in its earlier order in this docket  
14 where they were appropriate. Thus, we used cost of capital,  
15 depreciation inputs, tax rates, nonrecurring work time  
16 assumptions, and deaveraging methodology ordered by this  
17 Commission in its May 25th, 2001 order. Additionally, the  
18 impact of non-- of inflation has been considered as allowed by  
19 the Commission in the reconsideration order.

20 The ALECs' testimony regarding cost issues focus  
21 primarily on the Commission's directive that BellSouth  
22 explicitly model, and I quote, all cable and associated  
23 supporting structure, engineering and installation placements.  
24 And that quote is from the May 25th order on Page 242. And  
25 this is what I'll be referring to as BellSouth's bottoms-up

1 methodology.

2           BellSouth utilized empirical data to the greatest  
3 extent possible to derive the inputs used in the BSTLM.  
4 Specifically, outside plant contractor costs for each district  
5 in Florida provided the individual work item price such as the  
6 price to place a pole to bore a driveway or to bury a cable.  
7 BellSouth then used the amount of usage that occurred during  
8 the year 2000 to develop an average contractor cost for each  
9 type of activity.

10           The second input source was the outside plant  
11 construction management, or OSPCM, system. The OSPCM is the  
12 same system used by BellSouth's network organization to  
13 estimate job cost. The OSPCM system was used in the  
14 development of splicing and placing time inputs. Even though  
15 BellSouth made every effort to eliminate the use of factors, in  
16 some instances factors provided the best means of estimating  
17 cost. Factors were used to derive such things as miscellaneous  
18 material or exempt material, supply expense, sales tax,  
19 engineering inflation.

20           Mr. Donovan and Mr. Pitkin address in their testimony  
21 several issues related to the BSTLM inputs. Mr. Milner and  
22 Mr. Stegeman have addressed some of these; however, there are  
23 several inputs in my rebuttal testimony that deserve to be  
24 addressed here because of their significance on the bottom line  
25 results. Let me state again that BellSouth used empirical data



1 whenever possible. Using BellSouth results based on contractor  
2 billing for the year 2000 in association with the bidding  
3 agreement, BellSouth determined several of these inputs at  
4 question.

5           One area of contention is loading factors or  
6 additional yet real costs associated with the placement of  
7 outside plant such as the placement of conduit. The  
8 first factor is a 25.43 percent factor that consists of  
9 miscellaneous costs that cannot be uniquely associated with a  
10 specific type of cable placement. For example, dollars paid to  
11 police officers to direct traffic around a manhole, concrete  
12 barriers that may be placed, or a climber helper are just some  
13 of these miscellaneous costs.

14           Now, one might say that a climber helper should only  
15 be associated with aerial cable, but when you look at  
16 Attachment 3 of the cost study, the dollars associated with  
17 this item are only \$800. Such miscellaneous items are not  
18 significant enough on their own to justify scrutiny over which  
19 accounts you should apply them to. There were over 75 of these  
20 miscellaneous items with these low cost numbers associated.

21           The second factor I want to discuss is the 40 percent  
22 loaded associated with conduit. The costs identified here are  
23 not included in the bill from the contractor. Specifically,  
24 this factor includes exempt material, supply expense,  
25 engineering and other miscellaneous costs that are considered

1 in the conduit account. Mr. Donovan says exempt material  
2 should be excluded from this account; however, he is incorrect.  
3 Documents we filed associated with the cost study clearly  
4 indicate that exempt material dollars are charged against the  
5 conduit account and in fact make up 8 percent of the  
6 1998 factor. Again, these are real dollars incurred by  
7 BellSouth that BellSouth should be allowed to recover.

8 Third, the other parties question whether or not the  
9 use of the 1998 engineering factors are appropriate. We chose  
10 1998 in order to be consistent with the other factors and  
11 material prices in the study. Exhibit DDC-5 to my testimony  
12 shows that this factor actually increases for 1999 and 2000.  
13 In fact, if you average '98 through 2000, you get 49 percent  
14 rather than the 40 percent we use. So we felt we were taking a  
15 conservative approach.

16 Next, regarding the exempt material factors,  
17 Mr. Donovan states that exempt material is included in the  
18 labor rates. However, my testimony in the cost study  
19 documentation clearly indicate that exempt material is not  
20 included in the direct labor rates used in our cost studies.  
21 While exempt material is assigned to various plant accounts  
22 based on TelCo labor, BellSouth developed these factors for  
23 exempt material in order for them to be applied against  
24 material. Even Mr. Pitkin agrees in his testimony that  
25 development of a factor determines how that factor should be

1 applied. The reason BellSouth chose to apply the factor  
2 against material was to make it consistent with our in-plant  
3 application and with how the BSTLM is programmed to apply this  
4 factor.

5           The last factor I want to mention is engineering.  
6 The engineering factors were developed based upon their  
7 application against total nonengineering investments. In other  
8 words, the engineering factor is applied to material plus the  
9 exempt material, plus sales tax, plus placing costs, plus other  
10 miscellaneous investments. BellSouth factors are based upon  
11 the 1998 RTAP data, the same data used in Phase I of this  
12 docket.

13           The parties agree that our engineering -- excuse me.  
14 The parties argue that our engineering costs are too high;  
15 however, data supplied by BellSouth in the cost study supports  
16 this level of cost. In fact, data supplied in data requests  
17 indicates that while engineering may be a volatile number from  
18 year to year, it is a significant cost component in each year  
19 and the 1998 level are not out of line.

20           On the other hand, Mr. Donovan appears to use  
21 BellSouth's engineering data on his Exhibit JCD-1 to arrive at  
22 his engineering factors, but his method on that exhibit totally  
23 dismisses the actual data and converts to his own personal  
24 judgment of one engineer per six technicians.

25           In summary, concerning the bottoms-up study, the

1 Commission ordered BellSouth to do this study so the Commission  
2 could compare its results with costs calculated using material  
3 loading factors. And one of the specific points is, the  
4 Commission ordered us to look at cable placement, engineering,  
5 installation, and the associated structure placement. So  
6 that's exactly what BellSouth studied in their bottoms-up  
7 study.

8           The bottoms-up study as attached to my exhibit --  
9 excuse me -- attached as an exhibit to my testimony, you will  
10 see that I did a comparison of the original ordered rates  
11 compared to the new rates that we have here. In some cases  
12 they went up, in some cases they went down. The bottoms-up  
13 study, therefore, we don't feel produces a more reasonable or  
14 accurate result, and from a costing perspective, we feel that  
15 the in-plant factor is still a justifiable approach to pricing  
16 our loops.

17           One last thing I would like to add is, we did do an  
18 additional study in this filing that is associated with the  
19 daily usage file, or DUF, studies. These files are the files  
20 that are used to provide electronic billing data to ALECs, and  
21 they were originally based on the demand at the time when  
22 Phase I was done as well as the first study that was filed here  
23 on a much lower demand. Demand changed after BellSouth began  
24 offering the UNE-P and that was not available when we did the  
25 Phase I studies. So with that adjustment, we have increased

1 the demand. And in looking at the DUF rates, you will see that  
2 they reflect that increased demand with the major ADUF and ODUF  
3 offerings. One point that is made about these studies in  
4 Mr. Darnell's testimony is he claims that the BellSouth common  
5 cost factor already includes a DUF cost, but that is incorrect.  
6 If you look at the cost study, you will see that the DUF costs  
7 have been removed from the common cost factor. That concludes  
8 my testimony -- thank you -- or my summary.

9 MR. SHORE: This witness is available for  
10 cross-examination and to answer, I hope, the questions that  
11 were pending the prior witnesses.

12 CHAIRMAN JABER: I was going to say I thought that  
13 was your testimony, Ms. Caldwell.

14 THE WITNESS: Oh, I'm sorry.

15 CHAIRMAN JABER: Do you tender the witness for cross?

16 MR. SHORE: I do.

17 CHAIRMAN JABER: Mr. Hatch.

18 CROSS EXAMINATION

19 BY MS. McNULTY:

20 Q Hi, Ms. Caldwell. This is Donna McNulty, and I'll be  
21 asking you some questions on behalf of MCI WorldCom and AT&T.

22 A Okay.

23 Q And I'll start off with following up on some  
24 questions that Mr. Hatch asked of Mr. Stegeman. In your  
25 testimony on Page 31, you essentially state that previously

1 this Commission found that the application of inflation factors  
2 to both the investment and to labor rates is appropriate; is  
3 that correct?

4 A Yes.

5 Q And in this phase, the inflation factors in the BSTLM  
6 are applied only to material investment; is that right?

7 A Associated with the BSTLM, yes, the inflation factor  
8 is applied against the material. Let me just add that any  
9 nonrecurring costs that were also included in the study would  
10 have had the inflated labor rate, but that would have been  
11 included in the labor rate's file.

12 Q You may have just answered the next question, but I  
13 just would like to ask it for clarification. The BSTLM doesn't  
14 apply inflation to contract labor rate in the model, does it?

15 A No.

16 Q In the BSTLM filed in this proceeding, you use the  
17 same approach to developing DLC investment as you did in the  
18 previous proceeding; is that right?

19 A Correct.

20 Q So you did not use the bottoms-up DLC inputs  
21 available in the BSTLM to estimate the total installed cost of  
22 DLC equipment; is that right?

23 A That is correct. We used the in-plant factors. And  
24 I'm basing that upon the Commission's order that told us to  
25 study cable placements and support structures.

1 Q So that means that the DLC investment still relies on  
2 the loading factor used in the cost calculator in this  
3 proceeding?

4 A Yes.

5 Q Ms. Caldwell, the cost of a piece of outside plant  
6 consists of engineering, direct labor, and material; is that  
7 right?

8 A Yes. There are other things such as sales tax,  
9 supply expense, et cetera.

10 Q And the model calculates the engineering portion as a  
11 percentage of labor and material?

12 A Labor and material and all other nonengineering  
13 investment items.

14 Q And when BellSouth engineers estimate jobs, they  
15 believe the cost of engineering is proportional to labor; is  
16 that correct?

17 A In the OSPCM for the -- I believe it's the nonpole  
18 and the non-- I want to say the conduit account, it's  
19 calculated against labor.

20 Q Have you reviewed Mr. Pitkin's revised Exhibit 8C?

21 A Some of the exhibits, I'm not sure which one exactly.

22 Q Mr. Hatch will be distributing this confidential  
23 exhibit. Also, I'd like to note for your information that this  
24 Exhibit 8C was revised on Friday, and it had a slight revision  
25 today. It might be the last page in this little packet, 8C.

1 CHAIRMAN JABER: Ms. McNulty, will the witness be  
2 able to see where the revision is, or do you need to elaborate  
3 a little bit more?

4 Q The revision that was made today, and again this is  
5 confidential, is on Line -- no, it's on Line 11 in the  
6 AT&T/WorldCom side under the column rate and that, of course,  
7 flows through to some of the other numbers. But I will be  
8 asking you questions under the BellSouth portion which has  
9 not -- does not contain any revisions as of today.

10 MR. SHORE: And, Madam Chair, if I can just ask for  
11 clarification, and maybe Ms. McNulty can help me. Is she  
12 asking the witness if she has seen this exhibit as it was  
13 revised and filed as of just this past Friday? Do I understand  
14 the question?

15 BY MS. McNULTY:

16 Q Well, the first question is, did you see the one that  
17 was filed on Friday?

18 A No, I haven't seen the one on Friday.

19 MR. SHORE: That clarified my question.

20 Q Okay. Well, I'll give you a chance to just look at  
21 this for a minute.

22 A Okay.

23 Q Do you see Line 14 which is the engineering loading  
24 for poles?

25 A Yes.



1 Q And please look at the column that represents the  
2 total engineering loading that BellSouth assumes per pole. Do  
3 you see that number?

4 A Yes.

5 Q Given your labor rate, this approximately equates to  
6 7.6 hours to engineer each pole. Would you agree?

7 A Could you repeat that one?

8 Q Given your labor rate, this equates to approximately  
9 7.6 hours to engineer each pole?

10 A Can you point me to the labor rates you're talking  
11 about? I'm a little confused.

12 Q Yes. I believe that's shown on Line 11 under the  
13 BellSouth that says, "rate." See that number?

14 A Okay.

15 Q So then take the number on Line 14, the total number  
16 on Line 14, and divide it by the rate identified on Line 11.

17 A Yes. Okay. Now, what was your question? I'm with  
18 you.

19 Q So given your labor rates, this approximately equates  
20 to 7.6 hours to engineer each pole, is that correct, assuming I  
21 did my math right?

22 A Yes. Yes, that would be correct. I'm with you.

23 Q So based on BellSouth's assumed span length of  
24 1200 feet and BellSouth's assumption that 120 feet are between  
25 poles --

1 A Right.

2 Q -- plus there's another pole at each end of the span,  
3 that essentially would be 11 poles; correct?

4 A I know that in terms of the 10 poles and 1 at the  
5 end, I believe that would be correct.

6 Q Okay. So if there are 11 poles for a span length of  
7 1200 feet, and you've just indicated to me that takes 7.6 hours  
8 to engineer each pole, then again assuming my math is correct,  
9 it would take 83 manhours or a little over two weeks to  
10 engineer each span, according to your calculations?

11 A I believe your math is correct. The one thing I  
12 think you have to remember, though, is that the engineering  
13 number that's located on 14, that represents the percent of  
14 dollars that are actually coded to our accounts for engineering  
15 associated with poles. And so these are actual dollars  
16 associated with the poles.

17 Q So based on what you say are actual dollars, you --  
18 based on these numbers, it takes 83 manhours or two weeks to  
19 engineer a 1200-foot span?

20 A Associated with just looking at those dollars, but  
21 the problem is, is when you start taking numbers out of  
22 context.

23 Q Is the --

24 A I said I agree.

25 Q You agree? Okay.

1           A     But the problem is, is when you start taking the  
2 numbers out of context and looking at one little small section.  
3 Sometimes you get some kind of distorted results. I go back to  
4 the fact that the percentage that's located on 14 is the  
5 percent that's taken directly from our accounting records for  
6 engineering associated with our 1C account.

7           Q     And you're familiar with the Commission's May 25th  
8 UNE order, aren't you?

9           A     Yes.

10          Q     I thought so. Basically, this Commission ordered  
11 BellSouth to refile the BSTLM in order to determine the  
12 magnitude of discrepancies between using a loading factor  
13 approach as opposed to using a bottoms-up approach for  
14 placements of plant directly related to loop and loop type  
15 items. Do you recall that? And this is from Pages 283 and  
16 284 of the order.

17          A     That's -- I mean, I would have to look at the order,  
18 but I'll take that subject to check. You also have to  
19 reference back in the order to -- it tells us actually what to  
20 study, as I mentioned in my summary, on Page 242.

21          Q     And the loop consists of the following, does it not,  
22 drop facilities, distribution facilities, multiplexing  
23 equipment, and the feeder?

24          A     Yes.

25          Q     And feeder can include both copper and fiber feeders?

1 A Yes.

2 Q And on Page 282 of the Florida UNE order, the  
3 Commission essentially stated that BellSouth's use of linear  
4 loading factors can generate questionable results in light of  
5 deaveraged rates, essentially that no economies of scale for  
6 exempt material, engineering, or labor, for example, can ever  
7 occur. Do you recall that?

8 A I don't recall the exact words, but I'll take that  
9 subject to check if that's exactly what the order said. And I  
10 believe that's why the Commission has requested us to do the  
11 bottoms-up for analysis purpose.

12 Q Also, included in the confidential packet distributed  
13 by Mr. Hatch is an updated exhibit of Mr. Pitkin's called  
14 Attachment 8A. Do you have a copy of that?

15 A Yes.

16 Q And I'll give you a chance to review it, if you'd  
17 like to take a moment.

18 A Okay. I think I'm with you.

19 Q Line 21 shows material, material loading and labor of  
20 a certain confidential number per foot of 25-pair underground  
21 copper cable and another confidential number per foot of  
22 1200-pair underground copper cable. Do you see that?

23 A Yes.

24 Q And Line 22 shows the engineering loading of a  
25 certain confidential number per foot of 25-pair copper cable

1 and another confidential number per foot of 1200-pair copper  
2 cable. Do you see that?

3 A I'm sorry, which line did you say then?

4 Q Line 21 and Line 22.

5 A Okay.

6 Q And will you accept, subject to check, that the  
7 engineering loading equals 8.81 percent of the material,  
8 material loading and labor costs for both the 25-pair cable and  
9 the 1200-pair cable?

10 A Subject to check, yes.

11 Q In your revised rebuttal testimony on Page 16, Lines  
12 2 through 8, you state that for this filing, BellSouth  
13 attempted to add modifications to make engineering expense less  
14 linear by reflecting engineering costs as a factor of material  
15 and installation costs. Do you recall that?

16 A You're on Page 16?

17 Q Yes, Lines 2 through 8.

18 A Yes.

19 Q So the engineering factor is still a loading -- is  
20 still a linear loading factor, is it not?

21 A Yes. It's just no longer applied to just material.  
22 It includes the installation as well.

23 Q But this linear loading factor is applied both to  
24 material and labor still, isn't it?

25 A Yes. Material and installation labor, correct.

1 Q Ms. Caldwell, exempt material is basically the nuts  
2 and bolts of the operation, exempt from cradle to grave asset  
3 tracking; is that correct?

4 A Yes, that's a good definition.

5 Q And nonexempt material is basically the major items  
6 of outside plant that are tracked cradle to grave such as  
7 telephone pole?

8 A Yes.

9 Q And in your surrebuttal on Page 9, you state that  
10 Mr. Pitkin's claim that BellSouth's exempt material loading,  
11 including the cost of NID and drop material, is incorrect. Do  
12 you recall that?

13 A Let me look real quick. Yes, we're talking about NID  
14 and drop there.

15 Q At this time, I'd like Mr. Hatch to distribute a  
16 handout which is an illustration of exempt material allocation  
17 methodology, and I would like to walk you through this  
18 illustration.

19 MS. McNULTY: Chairman Jaber, at this time I'd like  
20 to have this illustration of exempt material allocation  
21 methodology marked for identification.

22 CHAIRMAN JABER: Illustration of exempt material  
23 allocation methodology will be identified as Exhibit 49.

24 MS. McNULTY: Thank you.

25 (Exhibit 49 marked for identification.)

1 BY MS. McNULTY:

2 Q Ms. Caldwell, let's assume that there is \$1 million  
3 associated with the NID and drop labor, 500,000 of which is  
4 aerial and 500,000 of which is buried. As I understand your  
5 testimony, these labor dollars are directly associated with the  
6 aerial drop account ACC 248 and the buried drop account ACC  
7 548; is this correct?

8 A Let me double-check this. Yes, those are -- okay.  
9 I'm with you.

10 Q And exempt material is allocated to all accounts  
11 based on the amount of labor investment in each account; is  
12 that right?

13 A Correct.

14 Q So assuming you have \$15 million of exempt material  
15 investment as shown in this illustration, aerial drops would be  
16 allocated 5 percent or 750,000; is that right?

17 A I mean, I agree with your math.

18 Q Okay. So generally does this illustration reflect  
19 Bell's methodology for allocating exempt material? I mean, the  
20 numbers aren't going to be your numbers, but does it  
21 demonstrate how your method works?

22 A Okay. Are we talking in terms of the cost model  
23 itself? Are we talking in terms of accounting?

24 Q The model.

25 A Okay. In terms of the cost model, the --

1 Q Let me just correct that. It would be accounting,  
2 sorry, accounting.

3 CHAIRMAN JABER: Ms. McNulty, ask your question  
4 again.

5 Q Does this illustration reflect Bell's methodology for  
6 allocating exempt material?

7 A I'm having a problem answering that question because  
8 in terms of the account, when I've seen the exempt material  
9 assigned, I've only seen it assigned to the major field  
10 reporting codes such as aerial cable, fiber, et cetera. I've  
11 never seen it in particular assigned to your smaller assets  
12 accounts like the 248 and the 548. So I'm sorry, I don't have  
13 enough accounting knowledge to answer that.

14 CHAIRMAN JABER: Ms. McNulty, are you trying to  
15 figure out if this -- if she would agree with you that this is  
16 how BellSouth accounts for exempt material?

17 MS. McNULTY: Yes.

18 THE WITNESS: And I don't know. From an accounting  
19 standpoint, I can't answer that.

20 CHAIRMAN JABER: Because of the specific example  
21 given you here? You said you've never seen accounts 248 and  
22 548.

23 THE WITNESS: In terms of how the exempt material is  
24 allocated. When -- the information that I have seen, it's  
25 already been assigned associated to your major accounts like



1 your aerial cable, et cetera. So I can't answer how exempt  
2 material is assigned to that category. I just can't.

3 COMMISSIONER DEASON: Are you saying that no exempt  
4 material is allocated to accounts 248 and 548?

5 THE WITNESS: That's what I don't know. I can't  
6 answer that.

7 BY MS. McNULTY:

8 Q Ms. Caldwell, this is consistent with what your  
9 testimony says; correct?

10 A Well, it talks -- let me just look at one more  
11 sentence in here because this is taken right out of the  
12 accounting -- this is a quote out of the accounting records.

13 Q And if it would be helpful --

14 A Okay. I'm sorry. You're right. This quote does  
15 say -- it does say that they do get a portion. So I'm sorry.  
16 I'm with you now.

17 Q Just to clarify and for record purposes, you indicate  
18 this on your rebuttal testimony, Page 9, Lines 24 through 25?

19 A Yes.

20 Q Thank you.

21 CHAIRMAN JABER: Ms. Caldwell, for purposes of making  
22 sure the record is clear, are you now agreeing with Ms. McNulty  
23 that this is how BellSouth accounts for exempt material in  
24 account 248 and account 548?

25 THE WITNESS: Yes, I would agree.

1 BY MS. McNULTY:

2 Q And based on this illustration of the total exempt  
3 material dollars, do you know how much are associated with the  
4 NID and drop material investment?

5 A Well, if I follow, what you're saying is, on this  
6 example you're saying that your exempt material is your  
7 \$15 million; right?

8 Q Right.

9 A So you're assigning from this calculation 10 percent  
10 to these two accounts together for a total of 1.5 million?

11 Q Right. And -- but we just assigned a number, but do  
12 we know the actual amount of the -- I mean, there's not a -- in  
13 BellSouth's actual exempt material I'd say pot of money, for  
14 each item in there, does BellSouth have a specific number  
15 associated with each exempt material item, or does it just have  
16 a total, bottom line total, for the exempt material pot of  
17 money filed in this proceeding?

18 A It has a total bottom line exempt material number  
19 that is then allocated to the various accounts, so the various  
20 accounts would have a specific amount.

21 Q So what percentage of total exempt material is  
22 actually associated with the NIDs and drop material?

23 A I don't have that information.

24 Q Have you ever performed that analysis?

25 A I haven't seen it. It's possible that, you know,

1 some of our accounting have -- I mean, the accounting people  
2 definitely know because it's in the accounts, but I haven't  
3 seen it.

4 Q And it's safe to say it hasn't been filed in this  
5 proceeding?

6 A I don't believe that one was.

7 MS. McNULTY: Okay. At this time I'd like to hand  
8 out other illustration which I would like to mark for  
9 identification and call it, "Exempt Material Double Counting."  
10 And Mr. Hatch will be distributing that.

11 And, Chairman Jaber, may I have that marked for  
12 identification, please.

13 CHAIRMAN JABER: Illustration of Potential Exempt  
14 Material Double Count Allocation will be Exhibit 50.

15 MS. McNULTY: Thank you.

16 (Exhibit 50 marked for identification.)

17 BY MS. McNULTY:

18 Q Ms. Caldwell, I'll give you a minute to review this,  
19 please.

20 A Okay.

21 Q So, Ms. Caldwell, assume that there's still  
22 \$15 million of capital -- excuse me, there's still \$15 million  
23 of exempt material, but in this illustration, let's assume we  
24 actually know what the breakdown is for NID and drop, and that  
25 we know that \$13 million is associated with the NID and drop

1 materials, and \$2 million is associated with all other exempt  
2 materials. Do you follow me?

3 A Okay. I think I see what you're doing. Okay.

4 Q I mean, it's basically following the same example  
5 except that instead of just assigning a certain percentage, we  
6 actually know what dollars are assigned to NID and what dollars  
7 are assigned to the drop. Does that make sense now?

8 A Okay. Uh-huh.

9 Q Okay. So under your methodology, this illustration  
10 shows that BellSouth would allocate \$13.5 million of exempt  
11 material investment to other accounts, meaning they're not  
12 associated with NIDs and drops; is that correct?

13 A Okay.

14 Q Is that a yes?

15 A Oh, yes. I'm sorry.

16 Q Okay. Just clarifying. Under our illustration that  
17 I just handed out, we assumed that only \$2 million is  
18 associated with other accounts; right?

19 A Okay.

20 Q Because we know 13 million -- we know under this  
21 example, we know that \$13 million is assigned to the NID and  
22 drop. So 15 minus 13 equals 2 million.

23 A Okay.

24 Q So in other words, it's possible under BellSouth's  
25 allocation methodology that some NID and drop material

1 investment is allocated to other accounts; is that right?

2 A Give me just one second here, I'm sorry. Okay.

3 Could you ask your question again?

4 Q Is it possible under Bell's allocation methodology  
5 that some NID and drop material investment is allocated to  
6 other accounts?

7 A Based on the way the accounting is laid out here,  
8 yes.

9 Q So, Ms. Caldwell, in this example, \$11.5 million too  
10 much investment is associated with other accounts; is that  
11 right?

12 A Repeat your number.

13 Q 11.5 million too much investment. And the  
14 13.5 million is from the previous example under your allocation  
15 methodology and where we don't know -- when we don't know what  
16 the breakdown of the NID and drop is. You'll see that number  
17 on the bottom right-hand corner.

18 A Okay.

19 Q Compared to \$2 million when we actually knew because  
20 we could see into that exempt material list, and we could see  
21 that there was \$13 million for NID and drop plus \$2 million for  
22 other. So what I did was, I took the 13.5 under illustration  
23 number 1 and subtracted the \$2 million, and that's how I  
24 arrived at 11.5.

25 MR. SHORE: Madam Chair, if I may just ask a point of

1 clarification. I don't think I have an objection, but  
2 Ms. McNulty when she says "we knew," is she representing that  
3 these numbers come from somewhere, or is she using this as a  
4 hypothetical?

5 MS. McNULTY: These are hypothetical.

6 MR. SHORE: Okay. Thank you.

7 A I guess where I'm getting lost is, if I follow your  
8 example, you're saying that 11.7 million gets allocated to  
9 accounts other than the 248 and 548?

10 Q I'm sorry, I didn't hear that last part.

11 A Is -- I mean, if I look at what you have here, if I'm  
12 reading this correctly, that 11.7 of the exempt is getting  
13 assigned to -- the one that's associated with the drop and NID  
14 is getting assigned to accounts 22, 45, and 822C?

15 Q Yes.

16 A Okay. Now, what's your question? I'm sorry, I'm  
17 struggling trying to figure this out. Go ahead.

18 Q Basically you've given these examples, \$11.5 million  
19 of too much investment is associated with other accounts  
20 comparing this illustration number 2 with illustration number  
21 1.

22 CHAIRMAN JABER: Ms. McNulty, I want to understand  
23 your question too. Is your question generally to the degree  
24 there is double counting, would she agree with you that the  
25 amount should be deducted from the total? I'm trying to

1 understand the purpose of your question too. Tell me in your  
2 own words and maybe we can have the witness answer the  
3 question.

4 MS. McNULTY: I mean, basically we are trying to get  
5 at the double counting, so -- and I'm trying to --

6 MR. SHORE: Alleged.

7 MS. McNULTY: Alleged double counting. The  
8 difference in -- so the answer is yes to your question,  
9 Chairman.

10 CHAIRMAN JABER: All right.

11 COMMISSIONER DEASON: Well, let me ask you this. In  
12 your hypothetical, you still have \$15 million that you're  
13 trying to allocate, and you're allocating \$15 million in both  
14 of these.

15 MS. McNULTY: Yes.

16 COMMISSIONER DEASON: And it seems to me if there's a  
17 double count, then you'd end up with 30 million somewhere. I'm  
18 trying to understand where the double count comes in.

19 MS. McNULTY: Commissioner Deason, what we're trying  
20 to get at is that the NID and drop investments are already  
21 accounted for in the model.

22 CHAIRMAN JABER: Okay. Start with the foundation  
23 then and walk her through from the beginning because we're  
24 struggling too. So take a moment, step back and build the  
25 foundation for us.

1 (Pause.)

2 CHAIRMAN JABER: Ms. McNulty, I need to make a phone  
3 call anyway. So we're going to -- I didn't want you to think I  
4 was just being nice and giving you time to readjust your --

5 MS. McNULTY: Why thank you.

6 (Laughter.)

7 CHAIRMAN JABER: How about we come back at 3:25? And  
8 that will give you time to flush this out, and it will go  
9 faster once we get back.

10 MS. McNULTY: Thank you. And I appreciate it because  
11 this is rather complex.

12 CHAIRMAN JABER: I understand. Thank you.

13 (Brief recess.)

14 (Transcript continues in sequence with Volume 3.)

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1 STATE OF FLORIDA )

2 : CERTIFICATE OF REPORTER

3 COUNTY OF LEON )

4

5 I, TRICIA DeMARTE, Official Commission Reporter, do hereby  
6 certify that the foregoing proceeding was heard at the time and  
7 place herein stated.

8

9 IT IS FURTHER CERTIFIED that I stenographically  
10 reported the said proceedings; that the same has been  
11 transcribed under my direct supervision; and that this  
12 transcript constitutes a true transcription of my notes of said  
13 proceedings.

14

15 I FURTHER CERTIFY that I am not a relative, employee,  
16 attorney or counsel of any of the parties, nor am I a relative  
17 or employee of any of the parties' attorneys or counsel  
18 connected with the action, nor am I financially interested in  
19 the action.

20

21 DATED THIS 19th DAY OF MARCH, 2002.

22

23

*Tricia DeMarte*

24

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