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REBUTTAL TESTIMONY OF DON J. WOOD

ON BEHALF OF MCI

DOCKET NO. 960846-TP

September 16, 1996

960833 TP

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Don J. Wood, and my business address is 914 Stream Valley Trail, Alpharetta, Georgia 30202. I provide consulting services to the ratepayers and regulators of telecommunications utilities.

Q. ARE YOU THE SAME DON J. WOOD WHO PRESENTED DIRECT TESTIMONY ON BEHALF OF MCI IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to respond to the criticisms of the Hatfield Model included in the direct testimony of Alphonso J. Varner on behalf of BellSouth Telecommunications, Inc. ("BST"). I will also respond to statements made by BST witness D. Daonne Caldwell in her direct testimony.

Q. AT PAGES 18-19 OF HIS TESTIMONY, MR. VARNER STATES THAT THERE ARE A NUMBER OF "FUNDAMENTAL FLAWS INHERENT IN THE HATFIELD MODEL" WHICH MAKE IT AN "INAPPROPRIATE TOOL" FOR CALCULATING THE COSTS OF UNBUNDLED NETWORK ELEMENTS TO BE PROVIDED BY BST. ARE HIS CRITICISMS

1 ACCURATE?

2 A. No; none of the criticisms levied by Mr. Varner have merit. Upon close

3 examination, Mr. Varner's criticisms fall into two categories: 1) those in

4 which the assertion is more or less factually correct, but, even if factually

5 correct, in no way impugns the validity of the Hatfield Model as an accurate,

6 objective and verifiable means of calculating forward-looking economic costs;

7 and 2) those in which there is simply no factual basis for the assertion, and for

8 which Mr. Varner offers no factual support in his testimony. Mr. Varner

9 presents his criticisms as a presumably complete list of "the basic areas of the

10 model to which BST objects." If BST has identified other "objections" to the

11 Hatfield Model, it has not made them known to MCI.

12

13 Q. WHAT ARE BST'S SPECIFIC CRITICISMS OF THE HATFIELD MODEL?

14 A. Mr. Varner's stated criticisms are the following:

15 The Hatfield Model does not calculate the costs of unbundled network

16 elements based on "the actual network used to provide service." More

17 generally, Mr. Varner argues that the Hatfield Model should not be used

18 because it does not produce results which are consistent with the "actual costs

19 incurred by BST." In both regards, Mr. Varner is factually correct: the

20 Hatfield Model does not calculate the costs associated with BST's embedded

21 network, and it does not purport to calculate the level of BST's embedded

22 costs. What Mr. Varner fails to recognize when making this argument is that

23 no forward-looking cost study, assuming that it is correctly performed, is

24 based on the network configuration and technologies correctly in use. As the

1 FCC clearly points out in its August 8, 1996 Order in CC Docket 96-98
2 ("FCC Order"), "forward-looking cost methodologies, like TELRIC, are
3 intended to consider the costs that a carrier would incur in the future" (para.
4 683). The approach advocated by Mr. Varner -- to base cost studies on BST's
5 "actual network" -- was specifically rejected: the FCC found that an approach
6 that calculated costs "based on existing network design and
7 technology...currently in operation" is "essentially an embedded cost
8 methodology," and that to establish rates on such a basis would permit the
9 incumbent LECs to recover costs "that reflect inefficient or obsolete network
10 design and technology" (para. 684). In contrast, the Hatfield Model calculates
11 forward-looking economic costs in the manner specifically adopted by the
12 FCC, based on "the most efficient technology deployed in the incumbent
13 LEC's current wire center locations" (para. 685). In summary, Mr. Varner
14 and BST would have this Commission reject the Hatfield Model because it
15 complies with the methodology specified by the FCC rather than with a
16 methodology that was specifically rejected.

17 The Hatfield Model has evolved over time. Again, my dispute is not
18 with Mr. Varner's facts, but with his conclusion. Apparently, Mr. Varner
19 believes that in order for a cost model to be an "appropriate tool" for use in
20 developing cost estimates, it must be developed in final form and thereafter
21 remain rigid and unchanged; no additional information should be utilized and
22 no new features should be added. Such an assertion is both absurd on its face
23 and wholly inconsistent with the history of the cost models currently in use by
24 BST. There is no dispute that the Hatfield Model has evolved over time in

1 order to incorporate new data (because it is based only on publicly available,
2 non-proprietary inputs, the developers of the model continue their efforts to
3 identify public sources of data) and to include additional features (the original
4 version of the model could only be used for universal service calculations, the
5 second version produced only costs for unbundled elements, and the current
6 version -- the "new version" as referred to by Mr. Varner -- can be used for
7 calculations of both universal service and unbundled element costs). Mr.
8 Varner offers no argument why such model evolution, and the additional
9 information that it makes available, is not desirable. In addition, Mr. Varner
10 is apparently not aware that each of the cost models in use by BST's own
11 costing organization has undergone similar changes over time and, if his
12 criticism is accepted by the Commission, must also be rejected.

13 The Hatfield Model uses data derived from the Benchmark Cost Model.
14 Here again, there is little dispute regarding the fact that elements of the
15 Benchmark Cost Model have been incorporated into the Hatfield Model.
16 Specifically, the Data Module and Loop Module of the Hatfield model contain
17 calculations of loop characteristics and investment that are adapted from the
18 Benchmark Cost Model developed by US West, Sprint (local operations),
19 NYNEX, and MCI. Mr. Varner offers no basis, however, for his somewhat
20 surprising assertion that the BCM is "fatally flawed." In this regard, Mr.
21 Varner and BST appear to be in the distinct minority, even among their LEC
22 counterparts. Specifically, US West and Sprint have developed a new version
23 of the Benchmark Cost Model, referred to as BCM2, that continues to use the
24 sets of calculations used by the Hatfield Model. It is noteworthy that similar

1 enhancements have been made independently to the original BCM by both the
2 developers of the Hatfield Model and BCM2. It is also my understanding that
3 PacTel is considering incorporating BCM2 -- including the sets of calculations
4 in question -- into its own modelling efforts. While Mr. Varner does not
5 describe the BCM's alleged "fatal flaws" in his testimony, it is clear that other
6 incumbent LECs do not share his views. Of course, if Mr. Varner is
7 contending that the BCM calculations are "fatally flawed" because they do not
8 calculate costs based on BST's embedded network, then his criticism is invalid
9 for the reasons described previously.

10 According to Mr. Varner, the Hatfield Model includes estimates of
11 joint and common costs which are "unusually low." Here, and in the
12 remainder of his criticisms, Mr. Varner appears to have erred in both his facts
13 and his conclusions. He provides no basis for his suggestion that the "joint
14 and common" costs (as these terms are used by the FCC) included in the
15 Hatfield Model are somehow inaccurate, nor does he state the benchmark to
16 which he has compared them. In other words, if the costs included in the
17 Hatfield Model are "unusual;" what is the source of Mr. Varner's conclusions
18 regarding the "usual" level of such costs? Consistent with the FCC Order, the
19 Hatfield Model includes all of those costs described by the FCC as "joint and
20 common" that an efficient carrier would incur on a forward-looking basis; it
21 does not, and should not, include BST's embedded level of common costs. It
22 is also noteworthy that the FCC stated that, in addition to its expectation that
23 forward-looking common costs will be lower than existing embedded levels, it
24 expected the level of "common" costs to be smaller in studies conducted based

1 on an increment of network elements rather than tariffed services. The FCC
2 also concluded that because of the "likely asymmetry of information regarding
3 network costs, incumbent LECs shall have the burden to prove the specific
4 nature and magnitude of these forward-looking costs" (para. 695). While the
5 costs in the Hatfield Model may be considered "unusual" by Mr. Varner when
6 compared to BST's embedded level of "joint and common" costs, such an
7 observation in no way indicates that the Hatfield Model results are not correct
8 and fully consistent with the FCC Order. To the extent that he believes that
9 these costs are not an accurate reflection of the costs to be incurred by an
10 efficient carrier on a forward-looking basis, Mr. Varner and BST bear the
11 burden of proving the existence of additional forward-looking efficient costs.

12 According to Mr. Varner, the Hatfield Model uses an "unrealistic cost
13 of money." Fortunately, the FCC Order provides some guidance regarding a
14 "realistic" assumption. Specifically, the FCC found that "based on the current
15 record, we conclude that the currently authorized rate of return at the federal
16 or state level is a reasonable starting point for TELRIC calculations" (para.
17 702). The Hatfield Model uses a weighted average cost of capital of 10.01%,
18 based on authorized rates of return adopted by the FCC over the 1990-1995
19 time period. *In doing so, it uses a cost of money assumption that is higher*
20 *than the last authorized weighted average cost of capital authorized for BST by*
21 *this Commission.* In addition, the FCC found that "incumbent LECs bear the
22 burden of demonstrating with specificity that the business risks that they face
23 in providing unbundled network elements and interconnection services would
24 justify a different risk-adjusted cost of capital or depreciation rate. These

1 elements generally are bottleneck monopoly services that do not now face
2 significant competition" (para. 702). In summary, the Hatfield Model as it has
3 been run for this proceeding uses a higher cost of capital than is required by
4 the FCC Order. If Mr. Varner intended to suggest that the model used a cost
5 of money that is unrealistically high, then he may be correct. If he intended to
6 suggest that the cost of money used is unrealistically low, then he and BST
7 bear the burden of demonstrating that the risks associated with providing
8 unbundled network elements warrant a change in the Commission's last
9 approved cost of money.

10 According to Mr. Varner, the Hatfield Model uses an "overly high
11 plant utilization factor." In reality, the Hatfield Model uses a number of
12 different utilization factors -- sometimes referred to as "fill factors" --
13 depending on the type of facility being used and the characteristics of the area
14 in which it is to be placed. The Hatfield Model uses conservative estimates of
15 so-called "engineering fill" or "administrative fill," that are in no way "overly
16 high" when used in a forward-looking cost study. Of course, the assumed
17 utilization factors are not intended to represent the levels of network "fill" in
18 BST's embedded network, which may be artificially low for a number of
19 reasons.

20 According to Mr. Varner, the Hatfield Model uses "overly long
21 depreciation lives." In reality, the Hatfield Model uses the last depreciation
22 lives authorized by the FCC. (Based on a request by the Commission staff
23 during my deposition last week, MCI is currently rerunning the model using
24 this Commission's most recently approved depreciation lives.) As with the

1 other variables, Mr. Varner and BST bear the burden of demonstrating that the
2 depreciation lives used in the model should be adjusted.

3 According to Mr. Varner, the Hatfield Model underestimates the cost
4 of service in urban areas. Mr. Varner provides no basis for this assertion, so
5 it is impossible to ascertain the validity of his criticism. The Hatfield Model
6 calculates costs for six density zones, so that the differences in the cost of
7 provisioning a network in urban and rural areas can be accurately captured.
8 The forward-looking economic costs of providing unbundled network elements
9 in both urban and rural areas have therefore been included.

10

11 Q. ARE THERE OTHER AREAS OF CONCERN THAT YOU WISH TO
12 ADDRESS AT THIS TIME?

13 A. Yes. While she does not describe in any detail the methodology that BST
14 intends to use in its "TELRIC" studies current being performed, BST witness
15 Caldwell makes two troubling statements. First, Ms. Caldwell states that
16 BST's existing "LRIC/TSLRIC studies do not include any shared or common
17 costs that would be considered directly attributable using the TELRIC
18 methodology specified in the FCC Order." This statement is simply false. To
19 be clear, I am not suggesting that Ms. Caldwell has intentionally chosen to
20 mislead this Commission; it is possible that she is simply unaware of the
21 details regarding how BST conducts its incremental cost studies.

22 For example, the FCC states that "directly attributable forward-looking
23 costs also include the incremental costs of shared facilities and operations,"
24 and described, as an illustrative example, "the costs of conduits shared by both

1 transport and local loops and the costs of central office facilities shared by
2 both local switching and tandem switching." BST's cost studies have
3 historically included a portion of such costs on a "directly attributable" basis
4 and, to the best of my knowledge, continue to do so. As a result, a statement
5 that BST's incremental cost studies do not currently include costs of shared
6 facilities and operations is simply not accurate, and any attempts by BST to
7 mark up for such costs in its upcoming "TELRIC" studies should be seen as
8 the double-counting of costs that it actually represents.

9 Ms. Caldwell and Mr. Varner also make the unsupported statement that
10 the results of cost studies performed pursuant to the FCC's TELRIC
11 methodology will "logically" be higher than the results of previous BST
12 studies (Caldwell at p. 4, Varner at p. 19). It is likely, however, that a study
13 based on a true forward-looking methodology as prescribed by the FCC -- a
14 methodology that explicitly does not include the embedded costs associated
15 with BST's existing network -- will yield lower costs. While the FCC
16 methodology includes what the FCC refers to as "forward-looking joint and
17 common costs," it is by no means certain that the inclusion of the proper
18 amount of these costs will outweigh the reduction created by studying a
19 forward-looking rather than embedded network, especially if a significant
20 portion of these costs are already included in BST's current cost studies (as
21 described above). In summary, it is by no means "logical" to assume that the
22 TELRIC methodology adopted by the FCC will produce results higher than the
23 results of BST's existing cost studies. To the contrary, it seems reasonable to
24 assume that the forward-looking costs of an efficient carrier will be lower than

1 the costs currently incurred by BST.

2

3 **Q. IN YOUR DIRECT TESTIMONY YOU STATED THAT COMPLETE**
4 **DOCUMENTATION DESCRIBING THE OPERATION OF THE**
5 **HATFIELD MODEL IN DETAIL WAS STILL BEING DEVELOPED. HAS**
6 **THAT DOCUMENTATION BEEN COMPLETED?**

7 **A. Yes. I have attached a copy of that documentation to this testimony as Exhibit**
8 **___ (DJW-4).**

9

10 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

11 **A. Yes.**

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