BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 1 In the Matter of 3 DOCKET NO. 980696-TP Determination of the cost of basic local telecommunications services, pursuant to Section 364.025, Florida Statutes. 7 8 9 10 VOLUME 26 Pages 2891 through 3003 11 12 HEARING PROCEEDINGS: 13 CHAIRMAN JULIA L. JOHNSON BEFORE: COMMISSIONER J. TERRY DEASON 14 COMMISSIONER SUSAN F. CLARK COMMISSIONER E. LEON JACOBS, JR. 15 COMMISSIONER JOE GARCIA 16 Friday, October 16, 1998 DATE: 17 TIME: Commenced at 9:00 a.m. 18 PLACE: Betty Easley Conference Center 19 Room 148 4075 Esplanade Way 20 Tallahassee, Florida DOCUMENT NEMBER-DATE 21 NANCY S. METZKE, RPR, CCR REPORTED BY: 22 23 APPEARANCES: RECEIVED 10-19-98 As heretofore noted.) BUREAU OF REPORTING 24

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1	PROCEEDINGS
2	(Transcript continues in sequence from Volume
3	25).
4	COMMISSIONER DEASON: Call the hearing back to
5	order. Staff.
6	CATHERINE E. PETZINGER
7	Continues her testimony under oath from Volume 25
8	CROSS EXAMINATION
9	BY MR. COX:
10	Q Good afternoon, Ms. Petzinger. Will Cox on
11	behalf of the Commission staff.
12	A Good afternoon.
13	Q I have a few questions regarding the testimony
14	you filed. On Page 17 you discuss how you believe the
15	BCPM Excuse me?
16	A Yes, I'm with you.
17	Q Okay. You discuss how the BCPM's results over
18	recover BCPM's own identification of USF fund-related
19	switch investments?
20	A Yes.
21	Q For a total of approximately 56 million dollars?
22	A Right.
23	Q For BellSouth, GTE and Sprint?
24	A Uh-huh.
25	Q Now are you saying that the cost of basic local

- service for BellSouth, GTE and Sprint is overstated by 56 million dollars?
 - A That was the numbers that came out of the BCPM switch module, main logic spread sheet.
 - Q But do you know if that translates into an overall overstatement of 56 million dollars?
 - A That was my understanding.
 - Q In your summary today, you stated that one company has entered fill factors into both the SCIS and the BCPM?
- 11 A Yes, that's correct.

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- 12 Q And you didn't identify which company. Which
 13 company was that?
- A The company that provided the SCIS data was
 Sprint, at the time I wrote the testimony.
- Q So you're saying they have entered the fill factors twice --
- 18 A Well, once --
- 19 Q -- in the process?
 - A Yeah. The way I understand it, it was entered once in SCIS. The SCIS then was used to develop the BCPM default prices, so those prices reflect line fills as entered in SCIS. Then they entered line fill again in BCPM further adjusting the numbers. And later, after I wrote this testimony, we also found the same situation with the

- BellSouth data. GTE declined to provide us with their cost model runs, so I couldn't review that for GTE.
 - Q So in summary, what's the result when these results are inputted twice, once in the SCIS and the BCPM?
 - A Right. My understanding of how this work is that -- well, I know how it works in SCIS. In SCIS it increases the cost in order to account for the fill factor. You know, it's fill -- if you think of fill as being administrative spare and whatever they classify as spare capacity. So the SCIS results that were then put into the BCPM default prices were increased to account for fill. Now in BCPM, on the input page, they have entered additional fill factors that are further adjusting those prices, a second time for the same concept of fill. The numbers don't match up, by the way, either. The fill
 - Q On Page 12 of your testimony, Lines 4 through 12, you discuss the difference in cost between copper base and fiber base remote switches?

inputs are different in SCIS than they were in BCPM.

A Yes, that's correct.

- Q You state at the time you prepared your testimony you did not have the information to determine what types of remote switches were assumed in this proceeding; is that correct?
 - A This was as far as SCIS data. I didn't have

information about precisely what type of remotes. Okay. Now since that time that you filed your 2 testimony, have you received that information? 3 I have received the information for Sprint and 4 BellSouth but not GTE. 5 And what does the information tell you for those 6 companies that you have received the information for? 7 They do have some copper base remotes. 8 A When you say they, is it both? 0 I think both of them did. I would have to 10 check. I don't remember explicitly. I did review them 11 quickly in the inputs. It's not a simple process to review 12 those inputs. You have to go through multiple screens. 13 First you have to pull up a wire center, then you have to 14 go to the office inputs, then you have to go to the remote 15 inputs to find out what kind of a remote it was. It's very 16 complicated -- not complicated but just tedious. So I spot 17 checked a few and did see that there were some copper base 18 remotes, but I didn't try to quantify them. 19 Q Okay. Was it a very few, or was there a 20 substantial amount? Do you have any estimate? 21 A No, I don't. As I said, I spot checked to see if 22

they were there, and they were, but I didn't actually try

O Okay. If you could turn to Page 30 of your

to develop a count of the number.

23

24

testimony. On Page 30 you assert that BellSouth has included an absolutely huge amount of reserve CCS for the DMS host and that the 5-ESS reserve CCS input values far exceed any costs I've ever seen; is that correct?

A Yes, that's correct.

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Q First, what is the reserve CCS?

In the SCIS model, when you have equipment that is considered to be what they call dual limiting, meaning that that particular box or piece of equipment can either be used up by two different resources. If one uses up the box first, there may be some stran -- think of it as stranded capacity, in that box left for the other area. Now what we are talking about here is line ports coming in and also at the same time as line ports coming in, you are trying to engineer how many paths through the network you have in order to carry traffic on those lines. When you connect that line into that box, that box has two capacity limitations: One is the number of lines, and one is going to be the amount of traffic it can handle. If you fill up the box with the number of lines first, you may have stranded traffic-carrying capacity in the box, and that's what this is.

- Q What does the CCS standing for?
- A Centum call seconds. It's just a different --
- Q I'm sorry, I didn't hear you. I'm sorry.

A Centum call seconds. It's just a different unit of measure. It means a hundred call seconds instead of 60. I don't know -- It has to do with -- I think originally they used our lines. I don't know exactly why they don't use minutes to make everybody's life easier.

Q And how exactly does this huge amount of reserve CCS for the DMS switch host impact the switching cost?

A We provided some data on that. Because of the relatively small percentage of that number compared to the total investment, it wasn't a big impact on the total investment. What it does do, however, is inflate the port cost at the expense of the usage. It's adding -- that input that they have, it's basically adding that directly to the port. So it's distorting the cost of the port more so, but on a total investment basis, it wasn't a big impact. I think I provided that to you in a response.

Q Okay. And when you determined that the reserve CCS inputs for the DMS and 5ES switches were too high, what did you base your opinion on?

A Well, at the time when I wrote my testimony, I had one Sprint contract which was provided, and I had basically publicly available information and my general knowledge of the industry. Since --

TALLAHASSEE, FLORIDA

O What was the --

A I'm sorry.

C & N REPORTERS

1	Q I'm sorry. What was the publicly available
2	information?
3	A That was outlined in my testimony. It was
4	Mr. Raley from Southwestern Bell, the Pacific Bell number,
5	the switched price per line from the NBI report. That was
6	the general public information. And then since then, since
7	the rebuttal testimony, the BellSouth contracts were made
8	available for me to go to their offices and review, which I
9	did and filed supplemental testimony on that.
10	Q Thank you, Ms. Petzinger.
11	MR. COX: That concludes staff's questions.
12	WITNESS PETZINGER: Thank you.
13	COMMISSIONER DEASON: Commissioners.
14	COMMISSIONER JACOBS: Some of your calculations
15	about the over costs overages for the switch had to do
16	with, as I understood it, if you looked at the total
17	investment for the switch, it didn't match the total of the
18	per units once you totaled all those per unit costs up?
19	WITNESS PETZINGER: Exactly.
20	COMMISSIONER JACOBS: And does that remain an
21	observation?
22	WITNESS PETZINGER: Yes.
23	COMMISSIONER JACOBS: Okay.
24	WITNESS PETZINGER: Yes, that is still true.
25	That was and we're not talking about total investment.

We are talking about the total investment identified by BCPM as USF related. So they have two places where they calculate USF related investment: One is total, and one is unit. So it was --

COMMISSIONER JACOBS: Okay. And the one that is reported out of the model is the one that you say is over -- is too high?

from looking at the model. It was extremely difficult to trace the model workings through to an output sheet. You know, I even used the audit tool within Excel, and it just sort of dead-ended, and it was very difficult to understand exactly what got reported out.

COMMISSIONER JACOBS: But the per-unit costs, they weren't reflective of that; is that -- do I understand that to be the case?

witness petzinger: The per-unit costs, in this case we are talking about the port plus usage attributable to USF. When it was expressed on a per-line basis, my understanding is that's what is being used to calculate the ultimate results. If it weren't, then I have no idea why they went through all the mechanics of building those numbers up. So that number was what was used, in my opinion, to generate the USF cost.

COMMISSIONER JACOBS: All right. Thank you.

- 1	
1	WITNESS PETZINGER: The ultimate USF cost.
2	COMMISSIONER DEASON: Redirect?
3	MR. HATCH: No redirect.
4	COMMISSIONER DEASON: Exhibits.
5	MR. HATCH: AT&T would move 93, 94.
6	COMMISSIONER DEASON: Without objection, Exhibits
7	93 and 94 are admitted. I think that's all the exhibits.
8	BellSouth, I think your witness is scheduled
9	next, or group of witnesses.
0	MR. CARVER: Yes, sir. BellSouth calls the
1	Georgetown Consulting Group.
2	COMMISSIONER DEASON: Please stand and raise your
.3	right hand.
4	MR. CARVER: If it's okay, I believe I'm going to
.5	move down to the other end. Now that they are seated, I
.6	can tell that I can't see them all.
7	Whereupon,
8	JAMSHED K. MADAN
9	MICHAEL D. DIRMEIEK
0	DAVID C. NEWTON
1	was called as a panel of witnesses on behalf of BellSouth
2	and, having been duly sworn, testified as follows:
3	DIRECT EXAMINATION
4	BY MR. CARVER:
5	Q Would each of you please state your full name and

business address? A (Witness Madan) My name is Jamshed K. Madan. My business address is 456 Main Street, Ridgefield, Connecticut? A (Witness Dirmeier) My name is Michael Dirmeier, 5 and my business address is the same, 456 Main Street, 6 Ridgefield, Connecticut. 7 (Witness Newton) My name is David Newton, and my 8 business address is 75 Squares Glen in Madison, 9 10 Connecticut. And would each of you please state by whom you 11 are employed and in what capacity? 12 (Witness Madan) I'm employed by Georgetown 13 Consulting Group, and I am a principal of that firm. 14 A (Witness Dirmeier) I am also a principal of 15 Georgetown Consulting Group. 16 (Witness Newton) I'm an independent consultant 17 A who is currently working for Georgetown Consulting Group. And, Mr. Madan, you will be the lead witness, so 0 19 20 to speak? A (Witness Madan) Yes, I will. 21 Okay. Could you tell us, have you and the panel 22 members caused to be prefiled 31 pages of rebuttal 23 testimony, including 17 exhibits? 24

(Witness Madan) Yes, we have.

And subsequent to the initial filing, there were some changes filed; is that correct? (Witness Madan) Yes. A 3 Do you have any additional changes to make today? 4 (Witness Madan) No, we don't. 5 If I were to ask you the questions that appear in your testimony, would your answers be the same? 7 (Witness Madan) Yes, they would. 8 MR. CARVER: I would request that the Georgetown 9 panel's rebuttal testimony be inserted into the record as 10 11 though read. COMMISSIONER DEASON: Without objection it shall 12 be so inserted. 13 14 15 16 17 18 19 20 21 22 23 24 25

1 2 3		Affiliation, Scope of Engagement and Purpose of Testimony
4	Q.	PLEASE STATE YOUR NAMES AND BUSINESS AFFILIATIONS.
5	Α.	My name is Jamshed K. Madan. I am a founding Principal of Georgetown
6		Consulting Group, Inc. (GCG or Georgetown). The business address of
7		Georgetown is 456 Main Street, Ridgefield, Connecticut.
8		My name is Michael D. Dirmeier. I am a Principal of Georgetown.
9		My name is David C. Newton. I am a consulting telecommunications
10		network engineer. My business address is 75 Squires Glen, Madison, Connecticut.
11	Q.	PLEASE STATE ON WHOSE BEHALF YOU OFFER THIS TESTIMONY, ITS
12		SCOPE AND ITS PURPOSE.
13	Α.	This testimony is offered on behalf of BellSouth Telecommunications, Inc.
14		(BellSouth). BellSouth has previously engaged Georgetown to evaluate the
15		application of Hatfield Model Release 4.0 ("HM R4.0") made by AT&T and MCI
16		in various state proceedings where the issue was prices for unbundled network
17		elements ("UNEs"). In each of those cases, Georgetown rebutted the contention of
18		AT&T and MCI that their application of HM R4.0 resulted in reasonable UNE
19		prices, showing that the inputs to HM R4.0 selected by AT&T and MCI fail to
20		reflect the conditions of the territory of BellSouth and fail to be reasonable and
21		forward-looking. In those cases, Georgetown also applied HM R4.0 utilizing
22		inputs it developed that do reflect the conditions of the territory of BellSouth, are
23		reasonable and are forward-looking. Thus, if one were to accept HM R4.0 for use
24		in developing UNE prices, Georgetown's application would be appropriate because
25		it reflects proper inputs.

In this case, MCI and AT&T have applied HAI Model Release 5.0a ("HAI R5.0a") for purposes of determining the economic cost of providing basic local telecommunications service at the wire center level. The model used in this proceeding, HAI R5.0a, is different from the model (HM R4.0) used by MCI and AT&T witnesses in other state proceedings. If the identical inputs are applied to both HM R4.0 and HAI R5.0a the outputs would be different, with HAI R5.0a producing lower cost and universal service fund requirements. Indeed, the HAI and Hatfield models were originally developed for application to universal service funding issues. The outputs of HAI R5.0a include not only UNE prices, but universal service support outputs as well. The purpose of this testimony is to rebut the contention by MCI and AT&T that their application of HAI R5.0a in this case for purposes of developing the economic cost of providing basic local telecommunications service at the wire center level is reasonable (hereafter, the MCI and AT&T application of HAI R5.0a in this case is referred to as the "MCI/AT&T HAI R5.0a Application").

We evaluated the reasonableness of the MCI/AT&T HAI R5.0a Application by focusing on the nature and quality of the inputs selected by MCI and AT&T to apply HAI R5.0a. We did not evaluate the logic and structure of HAI R5.0a, except as necessary to determine the use made by HAI R5.0a of user adjustable inputs ("UAIs").

The MCI/AT&T HAI R5.0a Application is not reasonable for use in this case because the default values selected by MCI and AT&T for sensitive user adjustable inputs ("SUAIs") do not meet the requirement of both reflecting the conditions of the territory of BellSouth Florida and being reasonable and forward-looking. Georgetown has applied HAI R5.0a on the basis of values for SUAIs that



1		do meet the requirement of both reflecting the conditions of the territory of
2		BellSouth-Florida and being reasonable and forward-looking. Georgetown's
3		application of HAI R5.0a is r ferred to hereafter as the "GCG HAI R5.0a
4		Application."
5		Attached as Appendix A and incorporated herein by reference is a Glossary
6		of Defined Terms that will assist in reading this prefiled testimony.
7		
8		II. Statement of Qualifications
10 11	Q.	MR. MADAN, PLEASE STATE YOUR BACKGROUND AND EXPERIENCE.
12	Α.	I graduated from the Massachusetts Institute of Technology in 1966 with a
13		Bachelor of Science Degree in Electrical Engineering. I continued my graduate
14		studies at M.I.T., graduating in 1968 with a Master of Science Degree in
15		Management from the Alfred P. Sloan School of Management.
16		From August, 1968 through April, 1979 I was employed primarily by
17		Touche Ross & Co., an international public accounting firm. I was promoted to
18		Principal in September 1977 and held the position of National Director of
19		Regulatory Consulting. I left Touche Ross & Co. to become a founding Principal
20		of Georgetown in May, 1979.
21		I have testified extensively on public utility matters before various
22		regulatory bodies. My resume is attached to this prefiled rebuttal testimony as
23		Appendix B and incorporated herein by reference.
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1	Q.	MR. DIRMEIER, PLEASE STATE YOUR BACKGROUND AND EXPERIENCE.
2	A.	I received a Bachelors of Science degree in Physics in 1971 from Texas A&M
3		University. In 1973 I received my Masters of Business Administration in Finance
4		from The University of Chicago. I also hold a Certificate in Management
5		Accounting.
6		From January, 1974 to June, 1976, I was employed by The Bendix
7		Corporation as a financial planning analyst. From July, 1976 to April, 1979, I held
8		the position of consultant and senior consultant in the consulting division of
9		Touche Ross & Co. In 1979 I joined Georgetown, where since 1983, I have held
0	-	the position of Principal.
11		I have testified on numerous occasions before various regulatory bodies.
12		My resume is attached as Appendix C and incorporated herein by reference.
13		
14	Q.	MR. NEWTON, PLEASE DESCRIBE YOUR BACKGROUND AND
15		EXPERIENCE.
16	Α.	I have spent 32 years in telecommunications network design, planning and
17		implementation. The first 27 of those years was spent in service with the Southern
18		New England Telephone Company, where during the last 10 years I served in a
19		series of management positions directing network design, planning and
20		deployment. Since 1991, I have served as a consulting telecommunications
21		network engineer, advising clients and testifying in regulatory proceedings on a
22		variety of network matters. My resume is attached as Appendix D and
23		incorporated herein by reference.

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1	Q.	PLEASE EXPLAIN THE DIVISION OF RESPONSIBILITY WITHIN THIS
2		PANEL TESTIMONY.
3	A.	Mr. Madan has overall responsibility for the analyses made and the conclusions
4		reached in this rebuttal testimony. He serves as the principal spokesman. Mr.
5		Dirmeier is responsible for evaluating and applying various Hatfield Models,
6		specifically V2.2.2, HM R3.1, HM R4.0 and HAI R5.0a. Mr. Madan and Mr.
7		Dirmeier share responsibility for developing the alternative values for SUAIs used
8		by GCG to apply HAI R5.0a. Mr. Newton is responsible for certain engineering
9		and network analyses that have assisted Mr. Madan and Mr. Dirmeier in critiquing
10		the default values advocated by MCI and AT&T and in fashioning the alternative
11		values utilized by GCG in its application of HAI R5.0a.
12		
13		
14 15		III. Summary of Findings
16	Q.	PLEASE SUMMARIZE YOUR EVALUATION OF THE MCI/AT&T HAI R5.0a
17		APPLICATION.
18	A.	The logic and validity of HAI R5.0a and the propriety of using HAI R5.0a to
19		develop universal service support analyses, are issues beyond the scope of this
20		testimony. We offer no opinion on the propriety of using HAI R5.0a whether it is
21		applied for the purpose of developing UNE prices or developing costs for use in
22		determining universal service support. We simply assume the use of HAI R5.0a
23		for purposes of our analyses. We evaluate the MCI/AT&T HAI R5.0a Application
24		for reasonableness by critiquing the default values selected by MCI and AT&T for
25		the user adjustable inputs ("UAIs"), particularly sensitive user adjustable inputs

("SUAIs"), as reflected in the UAI database associated with HAI R5.0a (the UAI database associated with HAI R5.0a is designated Appendix B-5.0a).

We presume that the costs to provide basic local exchange service in Florida used by the Commission in this Docket to establish state universal service support should (1) reflect the conditions of the territory of BellSouth-Florida and (2) be forward-looking and reasonable, i.e., reflect cost or other conditions reasonably expected to occur in the future. This means that the values for SUAIs

The MCI/AT&T HAI R5.0a Application fails this standard. Whatever the integrity of HAI R5.0a as a model, the results of applying it cannot be reasonable if, as is the case here, the values selected by MCI and AT&T for SUAIs do not properly reflect the conditions of BellSouth-Florida and do not reasonably reflect

selected for use in applying HAI R5.0a should both reflect the conditions of the

territory BellSouth-Florida and be forward-looking and reasonable.

cost or other conditions reasonably expected to occur in the future.

CAN HAI R5.0a BE APPLIED BASED ON VALUES FOR SUAIs THAT

REFLECT BOTH THE TERRITORY OF BELLSOUTH-FLORIDA AND COST

OR OTHER CONDITIONS REASONABLY EXPECTED TO OCCUR IN THE

FUTURE?

Yes. Assuming the validity of HAI R5.0a as a model, and assuming that it is appropriate to use HAI R5.0a for purposes of determining universal service support, its application on the basis of such values will produce forward-looking loop and switching costs, properly reflective of conditions of the territory of BellSouth-Florida, that could be used in this case to develop universal service support.

O.

Α.

Q.	HAVE YOU DEVELOPE	D ALTERNATIVE	VALUES FOR SUAI	s FOR US
	WITH HAI R5.0a?			
Α.	Yes. We have developed	values for the SUAI	s that reflect condition	ns of the
	territory of BellSouth-Flor	rida conditions and th	at are properly forwa	ırd-looking
	except for values for cost	of capital and deprec	iation, which BST de	veloped ar
	which we have adopted.	We have used those	values to apply HAI	R5.0a, with
	changing its logic.			
	The following cha	rts show the MCI/AT	&T results and the C	GCG result
	both UNE prices and univ	ersal service support	levels.	
	Note: See See See See See See See See See S			
		MCI/AT&T HAI R5.0a APPLICATION	GCG HAI R5.0a APPLICATION	
	AVG. LOOP PRICE	\$ 9.90	\$ 20.14	
	SWITCHING PRICE	\$ 3.78	\$ 7.00	
		A.		2

		BENCHMARK S/MO	MCI/AT&T HAI R 5.0a APPLICATION ¹ (\$000s)	GCG HAI R5.0a APPLICATION ² (\$000s)
Annual Un Service Su				
	mary sidence nes	\$ 31.00	\$ 13,045	\$ 103,768
	igle Line siness nes	51.00	18	511
3. Tot	tal		13.063	104,279
The amounts reflected in this table corresponding to Mr. Wood's position are based R50a_expense_wirecenter.xls module which is part of the Wood-filed HAI R5.0a M On his filed CD-ROM, Mr. Wood uses a benchmark value of \$0.00 for both Primary Residence Lines and Single Line Business Lines. This results in total annu support of \$0.00 since the HAI Model's coding is such that, if the input benchmark \$0.00, the Model reports \$0.00 of support. In addition, the Wood-filed CD-ROM contains an output file (FLBS_FIL.xls different from the one that is produced when HAI 5.0a is run. Exhibit DJW-5 reflessame values for Residence [and Business] usage per line as are reported in FLBS_H However, that file appears to include some logic modifications and at least one error compared to the output of HAI R5.0a. Nonetheless, when \$31 and \$51 are input in FLBS_FIL.xls as benchmark values for Primary Residence Lines and Single Line E Lines, respectively, a total annual USF support of \$15,116,826 is computed. Average of DLC systems, Exhibit (GCG-17).		filed HAI R5.0a Model. e of \$0.00 for both esults in total annual e input benchmarks are file (FLBS_FIL.xls) that xhibit DJW-5 reflects the eported in FLBS_FIL.xls and at least one error, as and \$51 are input in		

The Analyses Performe
IV.

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A.

We examined HAI R5.0a in order to c'etermine how UAIs affect results. We identified groups of UAIs that are related by the Model's logic and we tested the Model's sensitivity to changes in the values for those groups. For example, HAI R5.0a utilizes several UAIs (including inputs B13, B16, B46 and B54 and B56) to determine costs associated with Copper Feeder Investment. The results of HAI R5.0a were considered sensitive to a group of UAIs (such as the group related to Copper Feeder Investment) if a change in one or more of the default values for the related UAIs changed average loop price or switching price by 1% or more.

PLEASE DESCRIBE THE ANALYSES MADE BY GEORGETOWN.

For those groups of UAIs determined to be sensitive, we examined whether the default values chosen for them by MCI and AT&T reflect the conditions of the territory of BellSouth-Florida and reflect the cost or other conditions reasonably expected to occur in the future. Where the default values for those groups of SUAIs failed that standard, we fashioned alternative values to meet it. We did so by looking at current cost and other data specific to BellSouth-Florida, stripping it of any embedded characteristics, and then fashioned the type of forward-looking cost or other data value required for use by HAI R5.0a. Fourteen groups of UAIs were determined to be sensitive and in need of alternative values to replace the default values by MCI and AT&T.

The Hatfield Models we reviewed, V2.2.2, HM R3.1, HM R4.0, and HAI R5.0a, each have their own UAI databases containing default values. We compared the default values for certain UAIs common between Appendix 5B (the UAI database associated with V2.2.2), Appendix B-3.1 (the UAI database

1		associated with HM R3.1), Appendix B-4.0 (the UAI database associated with
2		HM R4.0), and Appendix B-5.0a (the UAI database associated with HAI R5.0a).
3		We made this comparison in order to test the consistency of the default values
4		contained in successive UAI databases.
5		We applied HAI R5.0a on the basis of the alternative values that we
6		developed for the SUAIs. Thus, we applied HAI R5.0a based on its logic, but also
7		on the basis of values for the SUAIs that reflect the conditions of the territory of
8		BellSouth-Florida and that reflect cost or other conditions reasonably expected to
9.		occur in the future.
10		V.
11		Sensitive Inputs: Values Selected
12		for Certain User Adjustable
13		Inputs Significantly Affect Prices and
14		Universal Service Support
15	Q.	PLEASE DESCRIBE THE GENERAL COMPONENTS OF THE MCI/AT&T HAI
16		R5.0a FILING.
17	Α.	The HAI Model filing made by MCI and AT&T in these Dockets consists of two
18		components: (1) the HAI Model itself (HAI R5.0a) and (2) the databases used to
19		drive HAI R5.0a. Since we have taken as a given the application of HAI R5.0a in
20		this case, without validating or endorsing any HAI Model, the focus properly is on
21		the databases used to apply HAI R5.0a.
22		
23		
24		
25		

1	Q.	PLEASE IDENTIFY THE DATABASES USED BY THE MCDAT&T HAT RS.0a
2		APPLICATION.
3	Α.	There are essentially two outabases used in the MCI/AT&T HAI R5.0a
4		Application: (1) a voluminous set of cluster data' related to Florida and (2) a set
5		of data values that make up a UAI database. The values for the cluster data are
6		fixed, i.e., they are not intended to be user adjustable. The values for the UAIs are
7		not fixed. Indeed, they are designed to be adjusted to reflect the conditions of the
8		carrier for which prices are being developed. We focused on the data values for
9		the UAIs that make up the UAI database.
10		
11	Q.	PLEASE DESCRIBE THE MAKEUP OF THE UAIs.
12	A.	Appendix B-5.0a to the HAI R5.0a model documentation identifies 201 UAIs.
13		These UAIs are identified in Appendix B-5.0a as B1 through B201.
14		As defined in Appendix B-5.0a, each UAI has one or more data values
15		associated with it. For example, UAI B1, NID Investment per line, has nine data
16		values associated with it. Similarly, there are two data values associated with UAI
17		B7, Terminal and Splice Investment per line.
18		In total, Appendix B-5.0a identifies about 1,075 data values associated with
19		its 201 UAIs. Those data values are the default values that HAI R5.0a uses if no
20		other data values are substituted for any specific UAI. These default values are
21		generic in nature and national in scope, and largely form the basis for MCI and
22		AT&T filings in numerous states across the nation. HAI R5.0a is designed,
23		however, so that data values for UAIs can be customized.

²⁴ Cluster data includes information concerning customer counts. locations and geophysical characteristics of the service territory.

- ARE THE UAIS READILY OBTAINABLE VALUES, OR DOES A USER OF Q. THE HAI MODEL HAVE TO MAKE OTHER COMPUTATIONS IN ORDER 2 TO DERIVE THE INPUTS? 3
- Most, if not all of the UAIs are themselves the result of other computations. For A. 4 example, the development of UAI B1, NID Investment per Line, requires 5 computation of the components of a NID and drop, including the protector and the 6 interface, to ensure that the UAI derived for use by the model is consistent with 7 the use made of it by the Model. In many instances, it is necessary to perform 8 analyses and make computations from relevant and specific information from 9 BellSouth-Florida in order to develop the proper value for the UAI. The point is 10 that the UAIs required by the HAI Model are not readily available "on-the-shelf" 11 values -- they must be carefully developed. 12
- PLEASE DESCRIBE THE SENSITIVITY ANALYSES YOU PERFORMED. Q. 13

21

As noted earlier in this testimony (see Part IV), the logic of HAI R5.0a treats A. certain UAIs as related. We identified the groups of related UAIs, and we ran 15 HAI R5.0a to determine the degree to which changes in the default values 16 associated with those groups caused the output of HAI R5.0a to vary in a 17 meaningful way. Specifically, we looked at the default values for a group of 18 related UAIs, adjusted the values for those related UAIs up or down and, holding 19 constant the default values for all other UAIs, ran HAI R5.0a to determine whether 20 its results were sensitive to the change in those default values. We defined sensitive to mean that the change in the data values for the related UAIs within a 22 group caused the output of HAI R5.0a, namely, average loop price and aggregate 23 switching price, to change by 1% or more. We focused on those groups of related 24 UAIs that both appeared sensitive and for which one or more of the default values 25

1		for the group appeared questionable. Thus, the groups of related UAIs that we
2		have identified as sensitive (i.e., that are SUAIs) are ones that (1) have one or
3		more questionable default values and (2) change average loop or aggregate
4		switching price 1% or more when alternative values are substituted for the
5		questionable default values.
6		
7	Q.	WHAT RESULTS DO YOUR SENSITIVITY ANALYSES SHOW?
8	A.	Our sensitivity analyses show that 14 groups of related UAIs, encompassing about
9		70 out of 201 specific UAIs, are sensitive. The remaining UAIs do not
10		individually or as a group significantly affect the end result of applying HAI
11		R5.0a. Attached as Exhibit_(GCG-1), and incorporated herein by reference, is a
12		list identifying the 14 groups of related UAIs that are sensitive, i.e., that identifies
13		14 groups of SUAIs.
14		
15	Q.	HAVE YOU TESTED TO ENSURE THAT THE INSENSITIVE INPUTS,
16		TAKEN TOGETHER, PRODUCE NO SIGNIFICANT CHANGE IN THE
17		OUTPUT OF HAI R5.0a?
18	Α.	Yes. We changed each default value of the insensitive UAIs in a direction that
19		decreases loop and switching price. We adjusted them in a magnitude that cannot
20		necessarily be deemed to be within a range that is reasonable. Moreover, we ran
21		all of these changes together in combination. On a combined basis, the total loop
22		and switching price decreased by less than \$1.
23		
24		
25		

1	Q.	WHAT CONCLUSION DO YOU DRAW BASED ON THE SENSITIVITY
2		ANALYSES THAT YOU PERFORMED?
3	A.	The default values selected for the 14 groups of SUAIs have a significant effect on
4		the results derived by applying HAI R5.0a. Therefore, it is essential that the data
5		values selected for use with those SUAIs reflect the conditions of the territory of
6		BellSouth-Florida and reflect cost and other conditions reasonably expected to
7		occur in the future. Otherwise, the Commission will not have developed loop and
8		switching prices and universal service support levels that are specific to the
9		territory of BellSouth-Florida and reasonable for use in this case.
10	Q.	YOU HAVE PREVIOUSI Y INDICATED THAT THE MCI/AT&T HAI R5.0a
11		APPLICATION PRODUCES AN AVERAGE LOOP PRICE OF \$9.90,
12		AGGREGATE SWITCHING PRICE OF \$3.78 AND TOTAL PRICE OF \$13.68,
13		WHILE THE GCG HAI R5.0a APPLICATION PRODUCES AN AVERAGE
14		LOOP PRICE OF \$20.14, AGGREGATE SWITCHING PRICE OF \$7.00 AND
15		TOTAL PRICE OF \$27.14. YOU HAVE ALSO INDICATED THAT YOUR
16		SENSITIVITY ANALYSES IDENTIFY 14 GROUPS OF SUAIs. CAN YOU
17		INDICATE HOW THE DIFFERENCE BETWEEN THE AT&T HAI R5.0a
18		APPLICATION (\$13.68 TOTAL) AND THE GCG HAI R5.0a APPLICATION
19		(\$27.14 TOTAL) IS ACCOUNTED FOR BY THE 14 GROUPS OF SUAIs?
20	A.	Yes. The chart on the following page shows how the 14 groups of SUAIs account
21		for the relative differences in average loop and aggregate switching prices between
22		the MCI/AT&T result (\$13.68 total) and the GCG result (\$27.14 total). The
23		reconciliation is not exact, i.e., it does not add up exactly to GCG's HAI R5.0a
24		Application result of \$27.14, because the relative differences shown in the chart

below for each of the 14 SUAI groups are calculated on a stand-alone basis by

utilize alternative values for all 14 of the SUAIs all at the same time in one HAI

R5.0a run, so that each alternative value affects the other interactively. Of course,

GCG has done exactly that in order to establish its results from the GCG HAI

R5.0a Application (\$27.14 total). However, such a methodology does not show
the relative effects of each of the 14 SUAI groups.

	Loop	Agg. Switching	Total
MCI/AT&T HAI R5.0a Application	\$ 9.90	\$ 3.78	\$ 13.68
HAI R5.0a Default-Florida Result	S 10.57	\$ 3.97	\$ 14.54
I. NID & Drop	\$ 1.27	\$ (0.05)	\$ 1.22
2. Terminal & Splice	(0.82)	0.04	(0.78
3. Distribution Investment	1.50	(0.06)	1.44
4. Copper Feeder Investment	0.49	(0.11)	0.38
5. Fiber Feeder Investment	(0.21)	0.01	(0.20
6. Structure Placement	0.42	0.01	0.43
7. Structure Sharing	1.96	(0.06)	1.90
8. Copper & Fiber Fill Factors	0.10	0.00	0.10
9. DLC	1.25	(0.04)	1.21
10. Interoffice Investment	(0.06)	(0.05)	(0.11
11. Switching Factors	(0.08)	0.99	0.91
12. Expense Factors	2.33	1.41	3.74
13. Cost of Capital	1.52	0.56	2.08
14. Depreciation Lives	0.59	0.35	0.94
Cumulative Effect 1-14 (Sum)	\$ 10.26	\$ 3.00	\$ 13.26
GCG HAI R5.0a Application	\$ 20.14	\$ 7.00	\$ 27.14

CAN YOU INDICATE THE DIFFERENCE IN THE UNIVERSAL SERVICE Q. SUPPORT LEVELS RESULTING FROM THE MCI/AT&T APPLICATION AND 2 THE GCG APPLICATION OF HAI R5.0a? 3 Yes. The chart below shows how the 14 groups of SUAIs fashioned by GCG A. 4 affects the universal service support levels computed by HAI R5.0a. This chart 5 shows the aggregate results only and does not show the individual effect of each 6 individual group of SUAIs. 7

		BENCHMARK \$/MO	MCI/AT&T HAI R5.0a APPLICATION ¹ (\$000s)	GCG HAI R5.0 APPLICATION (\$000s)
Annual U Service S				
Re	mary sidence nes	\$ 31.00	\$ 13,045	\$ 103,768
Bu	ngle Line siness nes	51.00	18	511
То	tal		13,063	104,279
Pri suj \$0	On his imary Reside pport of \$0.0 .00, the Mod In addit	wirecenter.xls module value of the CD-ROM, Mr. Wornce Lines and Single Loo since the HAI Model del reports \$0.00 of supption, the Wood-filed CD the one that is produced	responding to Mr. Wood's which is part of the Wood-ixed uses a benchmark value ine Business Lines. This re's coding is such that, if theort. -ROM contains an output is when HAI 5.0a is run. Ess] usage per line as are re	filed HAI R5.0a Moo e of \$0.00 for both esults in total annual e input benchmarks : file (FLBS_FIL.xls) ! xhibit DJW-5 reflect

However, that file appears to include some logic modifications and at least one error, as compared to the output of HAI R5.0a. Nonetheless, when \$31 and \$51 are input in FLBS_FIL.xls as benchmark values for Primary Residence Lines and Single Line Business Lines, respectively, a total annual USF support of \$15,116,826 is computed.

Average of DLC systems, Exhibit (GCG-17).

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1	Q.	DO MCI AND AT&T APPEAR TO AGREE THAT IT IS VALUABLE AND
2		APPROPRIATE TO SUBJECT THE HAI MODEL AND ITS DATABASE TO
3		SENSITIVITY ANALYSES?
4	Α.	Yes. In his prefiled testimony in Georgia Public Service Commission Docket
5		No. 7061-U, Mr. Wood extolled the virtues of HM R3.1, remarking that its
6		openness and availability allow BellSouth
7 8 9 10		to gain an understanding of how the Hatfield Model works, to review all inputs and assumptions; and to determine which inputs and assumptions have a significant effect on the Model outputs. (Wood testimony, Georgia Public Service Commission Docket No. 7061-U, p.4, 1.20 to p.5, 1.2)
12		In an earlier Georgia Public Service Commission Docket, in which Mr.
13		Wood testified on behalf of AT&T in its Georgia arbitration case with BellSouth,
14		Mr. Wood stated that
15 16 17 18		[b]ecause the Hatfield Model is publicly available and its inputs can be varied by the user, it is possible to directly evaluate the Hatfield Model for accuracy and to ascertain the sensitivity of the Hatfield Model to changes in various inputs. (Wood testimony, Georgia Public Service Commission Docket No. 6801-U, Tr. p.812, 1.5 to 1.10.)
20		As we have on other occasions, we agree with Mr. Wood that sensitivity
21		analyses of the HAI Model, particularly analyses directed to the default values for
22		the UAIs in the UAI database, are a valuable exercise.
23		
24		
25		

	VI.
	Inappropriate Results: MCI and AT&T Select Values
	for the Sensitive User Adjustable Inputs That Do Not
	Reflect BellSouth-Florida Conditions or Conditions
	Reasonally Expected to Occur in the Future
Q.	IN YOUR OPINION, ARE THE RESULTS OF THE MCI/AT&T HAI R5.0a
	APPLICATION APPROPRIATE FOR USE IN THIS CASE?
Α.	No. Those results are not appropriate because the cost and other data values MCI
	and AT&T have selected as default values for the SUAIs do not reflect the
	conditions of the territory of BellSouth-Florida conditions and are not reasonably
	reflective of forward-locking cost and other conditions. These failures cause the
	AT&T HAI R5.0a Application to be inappropriate for use in this case.
	•
Q.	PLEASE EXPLAIN WHY THE COST AND OTHER DATA VALUES
	SELECTED BY MCI AND AT&T AS DEFAULT VALUES FOR THE SUAIS
	ARE NOT APPROPRIATE.
A.	HAI R5.0a is designed to be applied on the basis of cost and other data values for
	UAIs that (1) reflect the conditions of the territory of BellSouth-Florida and
	(2) reflect conditions that reasonably can be expected to occur in the future. It
	should be applied on that basis. In the Georgia Public Service Commission cost
	docket, Mr. Wood observed that
	a fundamental issue with any cost study is the integrity of the
	assumptions, calculations and input values used to develop the
	ultimate outputs. (Wood testimony, Georgia Public Service
	Commission Docket No. 7061-U, p. 7, 1.10 to 1.11.)
	We agree.
	A. Q.

1	Q.	DO THE COST AND OTHER DATA VALUES THAT MCI AND AT&T HAVE
2		SELECTED FOR THE SUAIS MEET THE STANDARD YOU HAVE
3		DESCRIBED?
4	A.	No. We have reviewed the cost and other data values that MCI and AT&T have
5		used as default values for the SUAIs. Those values do not meet the standard we
6		have described.
7		Attached to this testimony are 14 exhibits, one for each of the 14 SUAI
8		groups that we have identified in Exhibit_(GCG-1). These 14 exhibits,
9.		designated Exhibit_(GCG-3) through Exhibit_(GCG-16), are incorporated into
10		this testimony. A portion of each of the Exhibits shows that, for the SUAI group
11		in question, the cost and other data values used by AT&T as default values for the
12		SUAIs fail the standard we have described.
13		VII.
14		A Comparison: Default Values for User Adjustable Inputs Common to
15		Different HAI Model Databases
17	Q.	HAVE YOU PERFORMED OTHER ANALYSES THAT SUGGEST THAT THE
18		DEFAULT VALUES IN APPENDIX B-5.0a FOR SUAIS MAY NOT BE
19		REASONABLE?
20	A.	Yes. MCI and AT&T sometimes points to the fact, as they did during a Hatfield
21		Model workshop held in Georgia, that successive versions of the Model have
22		produced consistently close average loop prices. The contention appears to be that
23		the Model therefore should be considered "validated."
24		It appears to us that the consistently close average loop prices are more
25		likely due to significant (downward) changes that have been made in UAI

databases associated with successive versions of the Model. In other words, later
results appear consistent with earlier results because of (downward) changes in the
UAI databases for later versions of the Model, not because successive versions of
the Model would otherwise produce similar results.

5 Q. PLEASE EXPLAIN YOUR OBSERVATION.

A.

The chart below shows the results of an analysis we performed. The version of the Hatfield Model known as V2.2.2 has a UAI database associated with it, Appendix 5B. HM R3.1 also has a UAI database associated with it, Appendix B-3.1, as does HM R4.0 and HAI R5.0a, namely, Appendix B-4.0 and Appendix B-5.0a. Each succeeding Model, applied on the basis of its associated UAI database, does, indeed, modestly change the average loop price and annual universal support levels produced by the prior Model. However, it appears that the reason that results from later versions of the Model do not show even greater changes, namely increases, from results from earlier versions of the Model is because of adjustments (mostly downward) in each subsequent UAI database.

That conclusion is suggested to us by the results we obtained when we ran HM R3.1 on the basis of the UAI database associated with an earlier versions of the Model, namely, V2.2.2. And, that conclusion was confirmed when we later ran HM R4.0 and HAI R5.0a using the UAI database associated with HM R3.1 and then with the UAI database associated with V2.2.2. Specifically, we isolated those UAIs common between the V2.2.2 UAI database (Appendix 5B) and the HM R3.1 UAI database (Appendix B-3.1), and then ran HM R3.1 using the V2.2.2 UAI values for those common UAIs. We next isolated those inputs common between the HM R3.1 UAI database (Appendix B-3.1) and the HM R4.0 UAI database (Appendix B-4.0), and then ran HM R4.0 using the HM R3.1 UAI values

for those common UAIs. We ran HM R4.0 using the Appendix 5B UAIs common between V2.2.2 and HM R4.0. Finally, we followed the same procedure for HAI R5.0a using inputs from prior Hatfield Model Releases. We found the results to be revealing, as shown by the following chart.

Α.

		Hatfield M	odel Version		
	2.2	3.1	4.0	5.0a	
Data Base	(Univ	ersal Service Support (\$ mil		lions))1	
2.2	\$ 7.3	\$ 24.1	\$ 45.2	\$ 24.8	
3.1		16.4	38.1	25.5	
4.0			27.1	11.4	
5.0a				11.3	

14 Q. WHAT IS THE SIGNIFICANCE OF WHAT YOU HAVE OBSERVED?

As the chart shows, had the values for UAIs common between V2.2.2 and HM R3.1 remained the same, the universal service support would have risen by \$16.8 million (from \$7.3 million to \$24.1 million). Instead, as a result of changing the UAI database, HM R3.1 (using its new UAI database) produces a \$9.1 million increase in universal support (from \$7.3 million to \$16.4 million). In addition, if the values for UAIs common between HM R3.1, HM R4.0, and HAI R5.0a had remained the same, the average universal service support would have risen by \$9.1 million (from \$16.4 million to \$38.1 million to \$25.5 million, respectively). Instead, as a result of changing the UAI database, HAI R5.0a (using its new UAI database) lowers the universal service support by \$5.1 million (from \$16.4 million to \$27.1 million to \$11.3 million, respectively). And, finally, if the values for

1		UAIs common between V2.2.2 and HAI R5.0a had remained the same, the
2		universal service support would have risen by \$17.5 million (from \$7.3 million to
3		\$24.8 million). Note that these values are based on the default monthly benchmark
4		support levels of \$31 for Primary Residence Lines and \$51 for Single Line
5		Business Lines.
6		
8 9 10 11 12		VIII. Reasonable Results: GCG Applies HAI R5.0a Based on Values for Sensitive User Adjustable Inputs that Reflect BellSouth-Florida Conditions and Conditions Reasonably Expected to Occur in the Future
13 14	Q.	PLEASE EXPLAIN THE GCG HAI R5.0a APPLICATION IN THIS CASE.
15	Α.	We have applied HAI R5.0a on the basis of alternative values for the SUAIs that
16		we developed. We developed values that reflect cost and other conditions of the
17		territory of BellSouth-Florida and that reflect cost and other conditions that
18		reasonably can be expected to occur in the future.
19	Q.	WHAT VALUES FOR THE SUAIS HAVE YOU USED?
20	Α.	Attached as Exhibit_(GCG-2), and incorporated herein by reference, is a print-out
21		of all the values for the UAIs, sensitive and insensitive, that we used to apply HA
22		R5.0a.
23	Q.	WHAT RESULTS DOES THE GCG HAI R5.0a APPLICATION PRODUCE?
24	Α.	The following chart compares the results from the GCG HAI R5.0a Application
25		and the MCI\AT&T HAI R5.0a Application.

	MCI/AT&T HAI R5.0a Application	GCG HAI R5.0a Application
Average Loop Price Per Line Per Month	\$ 9.90	\$ 20.14
Switching Price Pe Line Per Month	\$ 3.78	\$ 7.00
Total Charge Per Line Per Month	\$ 13.68	\$ 27.14
Annual Universal Service Support for Primary Residence & Single Line Business Customers Lines ²	\$ 13,063,000	\$ 104,279,000

Page 2 of the HAI Model R5.0a documentation indicates that the model computes costs for fourteen (14) UNEs. The model also provides a summary of the UNE rates for loop and total cost, both expressed in terms of cost per line per month. The difference between the total cost of all UNEs and the total loop cost is presented in this table as "Switching Price per Line per Month." We emphasize that this is an aggregate number reflecting multiple UNEs. There is no single switching UNE priced at the indicated rate per line per month.

Using a benchmark support level of \$31 per primary residence line and \$51 per single business line per month.

1 2 3 4 5		IX. The GCG HAI R5.0a Application Results in Prices that Are Specific to the Conditions of BellSouth-Florida, Forward-Looking and Reasonable
6	Q.	DOES THE GCG HAI R5.0a APPLICATION RESULT IN LOOP AND
7		SWITCHING PRICES AND UNIVERSAL SERVICE SUPPORT LEVELS THAT
8		ARE FORWARD-LOOKING?
9	Α.	Yes, with the provision that we have not validated the computations within the
10		model.
11	Q.	PLEASE EXPLAIN WHY THE GCG HAI R5.0a APPLICATION RESULTS IN
12		LOOP AND SWITCHING PRICES AND UNIVERSAL SERVICE SUPPORT
13		LEVELS THAT ARE FORWARD-LOOKING.
!4	Α.	There are three features to the GCG HAI R5.0a Application that ensure that its
15		results are forward-looking. One, the structure and logic of HAI R5.0a purport to
16		reflect a telecommunications network of the future, i.e., a most efficient network
17		built from scratch, using forward-looking technology, assuming only
18		BellSouth-Florida's existing wire centers. The GCG HAI R5.0a Application leaves
19		that feature of the model untouched. Therefore, if the Commission determines that
20		the logic and structure of HAI R5.0a properly reflect the technology of a
21		forward-looking network, the GCG HAI R5.0a Application shares equally in that
22		characteristic.
23		Two, HAI R5.0a assumes quantities of materials corresponding to its
24		hypothetical network design. The GCG HAI R5.0a Application leaves those
25		quantities unchanged.

Three, HAI R5.0a calls for cost and other data values associated with its

UAI database that reflect conditions that reasonably can be expected to occur in

the future. The GCG HAI R5.0a Application fashions values for the SUAIs that

reflect the conditions of the territory of BellSouth-Florida and that are reasonable

and forward-looking. Those values are based on current BellSouth-Florida data

that have been carefully developed to ensure that no embedded cost or other

embedded characteristics are captured. The GCG alternative values reflect current

conditions in BellSouth-Florida's territory, but also conditions reasonably expected

to occur in the future.

Q.

REGARDING THE GCG HAI R5.0a APPLICATION BEING BASED ON THE CONDITIONS OF THE TERRITORY OF BELLSOUTH-FLORIDA AND RESULTING IN REASONABLE FORWARD-LOOKING PRICES? Yes. As an example, we will focus on UAI B10 to illustrate these points. A. Specifically, we compare MCI and AT&T's default values for UAI B10 to the alternative values GCG has crafted for UAI B10. The comparison reveals (1) that the GCG alternative values reflect the conditions of the territory of BellSouth-Florida, while the default values used by AT&T do not, and (2) that the GCG alternative values reflect conditions reasonably expected to occur in the future, while the default values used by MCI and AT&T do not.

CAN YOU ILLUSTRATE THE STATEMENT THAT YOU MADE

UAI B10 is one of the eleven UAIs in the SUAI group for Distribution:

Investment (see Exhibit_(GCG-5)). UAI B10 is Copper Distribution Cable,

\$\foot, defined by HAI R5.0a (Appendix B-5.0a) as the cost per foot of copper

distribution cable, as a function of cable size, including the costs of engineering,

installation and delivery, plus the cost of the cable.

The chart below compares values for UAI B10 developed by MCI/AT&T and GCG. "Default" reflects MCI/AT&T values and "BST-FL Specific" reflects GCG values.

Cable Size	Default	BST-FL Specific
6	\$ 0.63	\$1.14
12	0.76	1.28
25	1.19	1.60
50	1.63	2.22
100	2.50	3.39
200	4.25	5.86
400	6.00	10.43
600	7.75	15.24
900	10.00	21.29
1200	12.00	27.64
1800	00.61	40.90
2400	20.00	52.23

For UAI B10, GCG obtained the cost per foot of copper distribution cable that reflects the <u>current</u> cost of such cable to BellSouth-Florida, including the

values do not. Accordingly, as noted in Exhibit (GCG-4), the

BST-FL-specific value for cost of terminal splicing, UAI B7, is \$0.

current cost to BellSouth-Florida to engineer, install and deliver that type of cable.

On the other hand, the default values selected by MCI and AT&T are claimed to be based on the "opinion" of outside plant engineers. In discovery, in proceedings in other states, BST has asked MCI and AT&T to (1) provide all the back up papers demonstrating the support for the default values associated with UAI B10 and (2) explain in detail (with supporting papers) the analyses MCI and AT&T made, and the results therefrom, to ensure that the default values associated with UAI B10 are actually reflective of the conditions in those states. MCI and AT&T have not supplied answers, much less support for answers, to those inquiries. A failure to provide answers to this type of discovery is particularly troubling in light of the changes in the UAI database for HM R3.1 and HAI R5.0a for UAI B10. The following chart shows the change made by MCI and AT&T from one UAI database to the next, with the explanation that for certain cable sizes

a less course cable gauge was used. No backup documentation or workpapers

were provided.

Cable Size		HM R3.1 Default	HM R4.0 and HAI R5.0 Default
6		\$ 0.63	\$ 0.63
12		0.76	0.76
25		1.19	1.19
50		1.63	1.63
100		2.50	2.50
200		4.25	4.25
400		7.75	6.00*
600		11.25	7.75*
900	-	16.50	10.00*
1200		21.75	12.00*
1800		32.25	16.00*
2400		42.75	20.00*

The alternative values crafted by GCG for UAI B10 are not only based on cost data that reflects the current conditions of the territory of BellSouth-Florida, they also reflect costs that can be expected to occur in the future. There is every indication that the <u>current</u> cost of copper distribution cable, including the cost to deliver, engineer and install it, is actually a conservative measure of the cost of copper distribution cable in the future. It is not reasonable to expect that the installed cost of copper distribution cable will go down.

- Q. PLEASE EXPLAIN HOW YOU DEVELOPED THE COST FOR COPPER
 DISTRIBUTION CABLE TO ENSURE THAT IT IS FORWARD-LOOKING
 AND NOT REFLECTIVE OF EMBEDDED COSTS.
- Copper distribution calle that has been installed over a number of years is 4 Α. recorded on BellSouth-Florida's books as an investment. Therefore, were it 5 necessary to obtain the embedded investment dollar figure per foot of copper 6 distribution cable, this would be obtained by dividing the total investment in 7 copper distribution cable recorded on BellSouth-Florida's books by the total length of copper distribution cable that has been installed over the years. Since HAI 9 R5.0a requires a forward-looking and not an embedded cost per foot of copper 10 distribution cable, we applied a different procedure to obtain the forward-looking 11 cost. GCG began its analysis by considering 26 gauge copper distribution cable 12 and obtained costs associated with the activity of installing this size of cable in 13 1997. This information is contained in the 1997 books and records of 14 BellSouth-Florida in the specific field recording code associated with the 15 installation of 26 gauge copper distribution cable. This data provided the 1997 16 costs associated with the installation of 26 gauge copper distribution cable and the 17 length of cable that was installed for that year. We then derived the current (1997) 18 cost per foot for installation of copper distribution cable for each of the cable sizes. 19 This is precisely the information that is required for UAI B10 in order to make it 20 BellSouth-Florida specific, forward-looking and not reflective of embedded costs. 21
- Q. WHAT POINT DO YOU MAKE BASED ON YOUR EXAMPLE OF UAI B10?

 A. The alternative values for UAI B10 developed by GCG are based on conditions in the territory of BellSouth-Florida and are reasonable as forward-looking costs. The basis for the default values for UAI B10 used by MCI and AT&T is unknown, but

1		they most certainly are not specific to the conditions of the territory of
2		BellSouth-Florida. Moreover, MCI and AT&T provides no explanation of how
3		their default values are properly reflective of reasonable forward-looking
4		conditions.
5	Q.	ARE THE TYPES OF SHORTCOMINGS IN THE MCI/AT&T DEFAULT
6		VALUES FOR UAI BIO THAT YOU HAVE DESCRIBED IN THIS
7		TESTIMONY ALSO FOUND WITH RESPECT TO THE DEFAULT VALUES
8		MCI AND AT&T HAS CRAFTED FOR OTHER SUAIs?
9	Α.	Yes. Although, as you would expect, the exact deficiencies in the MCI/AT&T
10		default values related to UAI B10 are not the precise deficiencies found in the case
n		of other SUAIs, the same type and magnitude of deficiencies is found in the case
12		of virtually every other SUAI. Attached to this testimony are Exhibit(GCG-3)
13		through Exhibit(GCG-16), which address each of the 14 SUAI groups and
14		identify some of the deficiencies in the MCI/AT&T default values associated with
15		those SUAI groups.
16		X
17		Conclusion: If the HAI Model is Used, It Should Be Applied on the Basis of the Alternative Values for
18 19		The Sensitive User Adjustable Inputs Developed by GCG
20	Q.	PLEASE STATE THE CONCLUSION YOU REACH.
21	Α.	If this Commission determines that it wishes to establish universal service support
22		levels for BellSouth-Florida on the basis of applying HAI R5.0a, it should do so
23		on the basis of values for the SUAIs that properly reflect the conditions of the
24		territory of BellSouth-Florida. In other words, the cost and other data used to
25		fashion values for the SUAIs should reflect the conditions of the territory of

1		BellSouth-Florida. In addition, the values for the SUAIs should reflect cost and
2		other conditions that are reasonably expected to occur in the future, i.e., that are
3		both forward-looking and reasonable. Only in that circumstance will the
4		application of HAI R5.0a produce cost for purposes of determining universal
5		service support that are both forward-looking and reasonable for application in this
6		case.
7		The values for the SUAIs fashioned by Georgetown meet this standard.
8		The values used by MCI and AT&T for the SUAIs do not. If the Commission
9		utilizes HAI R5.0a, it should use the values for the SUAIs fashioned by
10		Georgetown.
[1	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
12	Α.	Yes, it does.
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MR. CARVER: And if we could have marked for identification please their exhibits. I believe they are GCG-1 through 17.

COMMISSIONER DEASON: GCG-1 through 17 will be identified as Exhibit 95.

MR. CARVER: Thank you.

COMMISSIONER DEASON: What about the appendices attached, is that part of prefiled testimony to be inserted in the record, or do those appendices need to be identified as a composite exhibit?

MR. CARVER: They should probably be inserted into the record as though read also. These are changes that were filed about a week ago, and they were to change some numbers.

COMMISSIONER DEASON: The appendices that I'm looking at basically are, it's the qualifications of the --

MR. CARVER: I thirk what they have labeled as appendices are actually part of Exhibits 1 through 17.

About a week ago we found that there was a numerical error, so they made a supplemental filing to correct all the instances in their testimony where that error occurred. So that change that's been filed would -- I guess it should just be inserted into the record in lieu of the original testimony for those particular pages.

COMMISSIONER DEASON: Well, I guess I'm a little

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unclear. Are you saying the appendices themselves are
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    actually part of the prefiled exhibits that we just
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    identified on a composite basis as Exhibit 95, or are they
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    separate?
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             MR. CARVER: Let me make sure we are on the same
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   page here. It appears that they are separate.
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             COMMISSIONER DEASON: Do you wish to have those
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   identified as a separate exhibit?
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             MR. CARVER: I think we could make it part of the
 9
   same as the Exhibits 1 through 17. Just make it part of
10
   the same composite.
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            COMMISSIONER DEASON: Okay. That would be part
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   of -- Then the appendices, I believe there are four
13
    appendices, will become part of Composite 95.
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             MR. CARVER: Thank you.
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   BY MR. CARVER (Continuing):
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         O Mr. Madan, could you summarize, please, the
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   testimony of the panel?
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             (Witness Madan) Yes, I will.
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             Good afternoon. Given our post position in this
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   hearing, I'll try and make our summary brief and concise.
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              Basically, our testimony in this proceeding
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   focuses on the inputs to the Hatfield Model rather than the
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   logic of the model. We have taken the logic of the model
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   as a given. We provide no opinion concerning the integrity
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of the model.

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Our conclusions in this proceeding are that the default inputs sponsored by AT&T and MCI are inappropriate and if used would result in significant errors. To provide some estimate of this discrepancy, we come to the following specific conclusions: A, that AT&T and MCI inputs are not specific to Florida, are not reasonable and are not forward-looking. If these inputs were to be used in the Hatfield Model in this proceeding to provide some estimate of the discrepancy, they would produce a loop cost of \$10.57 per month. Using \$31 and \$51 as benchmarks for the overall estimate of the universal service fund, their model would produce a fund for the state in the BellSouth territory of approximately 13.1 million dollars.

The inputs that we have created do reflect the conditions of Florida. They are forward-looking. We believe they are reasonable and reflect achievable efficiencies. These inputs do not include any embedded costs. To provide -- they produce a loop cost of \$20.09 a month compared with the \$10.57 a month that would come out of the AT&T position. And using the same revenue benchmarks of \$31 and \$51 as an illustration, they would produce a universal service fund of 103.7 million dollars compared with the 13 million dollars that was referred to earlier.

There are two types of inputs that are in this proceeding. The first is the demographic and geological (sic) data. Numerically, these represent the vast majority of the inputs concerning locations of customers and geographic characteristics. They are not in dispute in this proceeding. The second general set of inputs are user-adjustable inputs, and these are those that most directly affect the investment and cost resulting from the model and are the major focus of our effort in this proceeding.

There are 201 user-adjustable inputs. These inputs have been changed in only three areas by AT&T and MCI in this proceeding. These three areas are cost of capital, depreciation, and a labor index. Only these three out of the 201 have been changed. In every other case, the inference is made that the input is equally valid in Tallahassee, Miami, New York City, San Francisco, pick any place you want. Their position is that these inputs are reasonable for every single location. We do not believe this to be a reasonable assumption.

What we have done is developed inputs specifically for the territory here, and we did this by examining the current data of the largest telephone company in the state, that of BellSouth, with approximately 6.7 million telephone lines. The data has been conformed to be

efficiently, currently-available technology, inclusive only of forward-looking costs and containing no embedded characteristics. That's what we did. As I said before, we do not alter the structure of the HAI model. That is, we leave untouched the scorched node approach that is assumed in the logic of the model.

In making our presentation here, there are two areas that we'd like to point out plainly at the beginning that we have adopted BST's position on, and those are the areas of rate of return and depreciation. These are generic issues, and rather than develop independent estimates of the rate of return portion of the model and the depreciation characteristics of the plant, we have adopted the values directly from BST's witnesses. These are the only two areas in the model where we have adopted directly, in effect, the recommendation of other witnesses; otherwise, there would be yet additional rate of return and depreciation testimony.

The differences that we have spoken about earlier and that we referred to earlier in the loop, basically there are five major categories we would like to summarize the differences on in the summary. The rest is contained in our direct testimony.

First, in the area of the NID and the drop, there is approximately \$1.27 difference between our position and

AT&T/MCI's position; and that is accounted for primarily in two areas: First, labor rates. We have reflected the current union negotiated labor rate of \$41 an hour for this function. The default number that is used in this proceeding in the HAI model is \$28.60. Again, there is no backup for this figure. We do not know where it comes from. It's based on the opinion of five people that got together and decided that this would be an appropriate rate for Florida. The difference between the \$28.60 and the \$41 speaks for itself.

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Secondly, in the NID and the placement -- I'm sorry, with regard to the placement of the drop, we have reflected the fact that in the territory BellSouth negotiates a fixed price of \$74.50 to bury a drop, and the length of that drop could be anywhere from zero to 500 feet. These are based on several contracts that are negotiated in the territory. This represents the average, and we have taken into account this arms-length negotiated rate in computing the cost of a buried drop.

Again, the HAI model does not reflect this. It creates inputs based on the judgment of people. Those judgments, it appears to us, is significantly different from reality. And given the fact that it's a fixed price for a drop anywhere from zero to 500 feet, the length of that buried drop doesn't matter because it's going to be

somewhere between the zero and the 500 feet. The default number used in the Hatfield Model for a drop is 75 feet. The estimate that we have used for a drop -- again, the buried drop length doesn't matter -- is between 200 and 250 feet.

The second area of difference is in distribution investment, and this is worth about 68 cents on the loop. Our inputs are based upon a study we did to look at the current cost of installing copper, the most recent cost, the price actually paid, the discounts actually received, and the labor actually used to install this distribution plant. We will state here that because the information that we received from BellSouth includes the splice and the terminal, these numbers are already included in our distribution figures. What we, therefore, did to make the two numbers equivalent is go to the terminal and splice inputs into the HAI model and put those to zero. We have done some independent testing and believe that's a reasonable approach producing similar results to what would have happened had we broken it out separately.

Structure sharing is a large issue. It's worth almost \$2 a loop. It's \$1.96 on the loop difference between our estimates and the HAI model estimates. BST, as I said before, has approximately 6.7 million lines already in place. Nothing in our testimony changes the manner in

which those lines are put into a scorched node model. What we would point out is there is no requirement for other utilities, for cable TV companies, for electric companies or for any other utility, for them to adopt a scorched node approach. Given that this plant is already in place, we believe it's very unreasonable to assume that the other utilities would abandon their plant and somehow on the same lines on a three for one basis have a sharing of three utilities for some of the facilities that are in the HAI model.

Incrementally, we have assumed that some of the sharing is appropriate, could be put into place, but to assume that 6.7 million lines will be treated in this fashion, reducing the investment in some cases by a third of what it should be, we believe is extremely unreasonable; and we don't believe that a reasonable showing can be made that this kind of sharing is anywhere in the near term. It may be forward-looking but it may be forward-looking to perhaps a different century.

With regard to expense factors, we want to point out that significant changes have been made in the HAI model, in our opinion, fairly arbitrarily.

For network operations expense, AT&T and MCI reduce one half the current expense, one half; 117.5 million dollars, \$1.50 a loop. If this were a rate case,

you would need a little bit more justification than the opinion of some people where when asked to quantify provide absolutely no backup.

The actual operations expense of BST is \$3 per line and is in line with numbers contained in the Hatfield Model for 160 companies. This data produces an average of \$3.08. Our figure your is \$3 a line. Nonetheless, we have recommended that this input factor be reduced by 10%.

For switching expenses, on the expense side, the actual ratio of 5.72% is reduced to 2.69%. The average data, again, for the same 160 companies in the Hatfield Model is 5.7%. Nonetheless, we recommend a 10% reduction in the expense factor to 5.8%.

There is yet another expense grouping for a circuit equipment, and AT&T/MCI uses 1.53%. We have recommended an input ratio of 1.7% in keeping with this industry average.

There is yet another very significant expense change that is made in the model and not even included as a user-changeable input. There is a group of expenses that have been reduced from 337 million to 131 million, a difference of almost 200 million dollars. This is a reduction of \$2.63 per loop per month. We recommend a 20% reduction rather than the reduction that has been input into the model by AT&T and MCI and not put in as a

user-changeable input.

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Finally, I just want to say a few words with regard to model validation. The authors of the HAI model state that the model is validated because, as they have gone from earlier versions of the model to newer versions of the model, the end result appears to be approximately, they say, in the same ball park, indicating to the reader that there is some validation going on. What we have done on Page 21 of our testimony, there is a table, and you can look at it at your leisure later, but what happens is when you go from model to model, from earlier model to later model, if you hold the inputs the same, the actual values go up substantially. And what happens is that the major reason that the end result appears reasonable is that as the model is pushing the values up, the authors are taking the inputs and pushing them down. So as you go from an earlier version to a later version of the model using the same input, there are significant differences. These differences then are covered over by changing the value of the inputs downwards to get approximately the same result. We do not believe that this showing is any validation. There doesn't appear to be any proper validation of the model, and we believe that, in fact, the model is not validated at this point. That concludes our remarks. MR. CARVER: Thank you. The witnesses are

available for cross examination. 1 MR. COKER: Thank you. 2 CROSS EXAMINATION 3 BY MR. COKER: 4 Good afternoon, gentlemen. My name is Gene 5 Coker, and I represent AT&T. 6 (Witness Madan) Good afternoon. 7 Mr. Madan, at the beginning of your testimony, I 8 see where you have a degree in electrical engineering that 9 you obtained in 1966; is that correct? 10 (Witness Madan) That's correct. 11 Have you practiced as an electrical engineer 12 since that time? 13 (Witness Madan) No. 14 Have you been involved in the procurement of any 15 telecommunications equipment since that time? 16 17 A (Witness Madan) No, not in the context of your question. 18 Have you been involved in the installation of any 19 telecommunications equipment? 20 (Witness Madan) No. 21 Okay. Now it's your opinion and the opinion of 22 your colleagues sitting beside you there that you have 23 conducted an independent and objective evaluation of the 24 inputs of the HAI model; is that correct? 25

A (Witness Madan) That's correct.

- Q And I believe you said in your summary that you just focused on the inputs rather than the structure or the logic of the model itself?
- A (Witness Madan) That's correct. We took the logic as a given.
- Q Would you agree that the purpose of a cost proxy model is not to replicate the costs of an individual company but to determine the forward-looking cost, the forward-looking economic cost of an economic provider in the territory being served?
- A (Witness Madan) That could be one use of the model, although in reading the -- in reading the Hatfield Model, I believe it does indicate that the authors believe that the engineering assumptions are reasonable as well.
- Q Now as I read through your testimony, correct me if I'm wrong, but I believe you recommended that the input values for certain sensitive user adjustable inputs should not be used for two reasons: One that they don't reflect the conditions of the territory; and two, that they are not forward-looking and reasonable; is that a fair summarization?
- A (Witness Madan) Yeah. Just a clarification.

 The answer is yes, and just to clarify that: The HAI

 default values are not reflective of current conditions and

are not forward-looking or reasonable. That doesn't mean to say you shouldn't use the variables if it's properly constructed.

Q Did you reject all the default values or just some of them?

A (Witness Madan) We adjusted approximately 70 of them out of the 201.

Now with respect to the purpose of a cost model which we just talked about, in doing your analysis, you've assumed one of the important parts of the purpose, and that's whether the inputs or the costs that result are that of an efficient provider. Have you done any type of analysis, a management audit to determine the efficiencies of BellSouth?

A (Witness Madan) No, we did not take that added step. We took the position that the current data reflected -- when we got the data, that it would reflect efficient operations. BellSouth-Florida is operating currently in a price cap regime, if you would; and in many instances, as we already pointed out, for example, on the network operations cost, after having achieved significant efficiencies for the last few years, we again, just for illustrative purposes, have recommended yet a further 10% decrease in those costs. With regard to circuit equipment and those other factors we mentioned, we recommended a

further 20% reduction, so in many cases we've taken the current information. We've tried wherever possible to be conservative. Conservative being defined for our purposes in this proceeding is, given a choice, we would input a lower cost rather than a more reasonable cost.

Q I thought I heard you say in that answer that after BellSouth had achieved significant efficiencies over the last few years. Did you do some kind of analysis to determine that they have, indeed, achieved a certain amount of efficiencies over the past couple of years?

A (Witness Madan) Yeah, in fact, we were both in the room this morning, I think. There was like 11 thousand employees that have -- that the work force is shorter, that the lines have grown in this time period. So using the definition used this morning of more with less, you certainly have -- for a telephone company, the major input of expenses is labor as fuel would be to an electric company. So the major input of cost is down and the output and lines are up. It's fairly trivial and fundamental to see that significant efficiencies have been achieved.

Q In determining the economic cost in this proceeding, if it were shown that a particular item -- let's take poles, for example -- could be purchased less expensively than BellSouth is obtaining them, would you recommend putting that lower value in as an input value?

(Witness Madan) If it's reasonable, certainly. 1 With regard to poles, we had actually the opposite 2 information showing that BellSouth was actually 3 procuring -- the actual figures that they would procure at would be a little bit higher than the default. But in the 5 testimony that is before us, we have actually used your 6 figures on the poles, and we've used the defaults. 7

O I'd like to talk a little bit about the process that you used in your analysis, and I think it's laid out at about Page 9 in your testimony.

(Witness Madan) Right.

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As I understand it, you did a sensitivity analysis and determined that there was 14 groups of sensitive user-adjustable inputs; is that correct?

(Witness Madan) Yes. That was the end result of that analysis.

That was the end result of your analysis or the beginning of your analysis?

A (Witness Madan) No, it couldn't be the beginning. That's the end result of the analysis. What we did is we went through the vast amount of inputs. HAI has a significant amount of inputs. And we went through each one and tried to figure out the sensitivity of those inputs to the loop cost that would be derived from the model. We went through it, and as a parallel function, we also

applied our judgment. We began doing our analysis. These 1 things were all going down at the same time in parallel to 2 see what sort of reason -- for each input what would be a 3 reasonable factor as a first cut. And we took these analyses together, figured that various inputs were grouped together, and when we did our analysis and did a sensitivity then around those factors we thought would be 7 sensitive, we looked to see if we changed them as a group 8 by themselves did they change the end result by 1%. We 9 finally came up with 14 groups that exhibited this 10 tendency. Those are the 14 groups that we have used in all 11 of our analyses. 12

Q I think we might have been talking past each other. That didn't complete your analysis. You did work beyond that once you --

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A (Witness Madan) Yes, we did work beyond that once we established the 14 groups.

Q Okay. Once those groups were identified, then you took -- looked at the HAI input values, and you looked at those and you determined whether or not they were, they met your standard, the standard of whether they met the conditions of the territory or were forward-looking and reasonable; is that correct?

A (Witness Madan) Yes, the standards required by the Act that they be forward-looking, that they reflect the most efficient technology and they reflect the conditions of the territory.

- Q What do you mean by conditions of the territory?
- A (Witness Madan) Conditions that exist within the State of Florida, what it takes to operate a telecommunications company within the state; and as a surrogate for that, we decided that for our analyses we would take the conditions that existed in the BellSouth territory, what it took to provide telecommunication service on an extended area basis in the State of Florida.
- Q And where did you get your information that was necessary to judge whether it met the conditions of the territory?
- A (Witness Madan) We state very specifically in our testimony that we got this information from the largest provider of telecommunications in the state, that's BellSouth, with about 6.7 million lines.
- Q You relied very heavily on information you obtained from BellSouth, didn't you?
- A (Witness Madan) We relied very heavily on information we received with regard to its operations here in this state and comparable operations in the other states in which it operates.
- Q You determined the user sensitive -- or the sensitive user-adjustable inputs. You looked at the HAI

values, measured them against the information you got from BellSouth to determine if they reflected conditions of the territory to determine whether the standard was met; and if the standard wasn't met, then you fashioned values of your own; is that correct?

A (Witness Madan) No, I think once we decided that we had the group of 14 we already knew they were sensitive. They were extremely sensitive. We then went ahead and simply determined what the appropriate input would be, which required determining precisely what Hatfield required in the model, and then we fashioned, from our point of view, independently what those inputs would be using the most current information, financial and operational information available to us; and so we fashioned those inputs.

Q On Page 9 of your testimony at Line 12, it says: For purposes of groups of UAIs, user-adjustable inputs, determined to be sensitive, we examined whether the default values chosen by them -- for them by MCI and AT&T reflect the conditions of the territory of BellSouth-Florida and reflect the cost or other conditions reasonably expected to occur. Where the default values for those groups of SUAIs failed that standard, we fashioned alternative values to meet it. Is that a correct reading of your testimony there?

A (Witness Madan) That is correct.

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Q And in determining whether the default values failed the standard, you measured them against BellSouth data; is that correct?

(Witness Madan) We measured it against the data that we derived using inputs from BellSouth. This is not data that was given to us, as we explain in quite some detail in our testimony. Even the inputs don't come off the shelf. They require elements to be put together and fashioned together and, therefore, we would take data that we would request from BellSouth -- In many cases they may or may not have known exactly what we were doing with it. We requested that data, configured the data ourselves, and then determined whether the Hatfield input and this number that we obtained basically asking BellSouth two fundamental questions: Give us the prices you paid for this various equipment, for cable, for fiber, for DLC, for switching. We took those figures, made sure they reflected only the current costs, nothing from the past. We made sure that the maximum discounts were reflected, made sure that those discounts were reflected, put them together in a fashion that we determined were reasonable, not what BellSouth determined. There are significant differences between our approach, for example, to DLC and what BellSouth may have, et cetera; and then we put that number into the Hatfield

Model. So, yes, we used the only place that we could get current prices that we were confident in, was from a substantial amount of pricing data available from the utilities in the state.

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Q In reaching your conclusion that a -- Did you reach your conclusion that a particular HAI input value did not meet your standard before or after you received data from BellSouth?

A (Witness Madan) I'm not sure I can answer that.

It was a process, and some of it before, some of it later.

We were always refining our estimates. We did the sensitivities before we got all the final values from BellSouth of all the data we requested. That was an ongoing process that took quite a while.

We took this data and then produced the final inputs, but in terms of determining what was sensitive, we were doing it as an ongoing process, just looking at the figures and what we knew about certain numbers. For example, we wouldn't need final data from BellSouth to determine that a one third, one third, one third sharing of most of the facilities just didn't make any sense, so we didn't have to wait for any data on that; we ran the number. We figured it was worth \$2 a loop if you used assumptions that we believe were totally unreasonable and we then got some data from BellSouth, but eventually

created our own input for that.

- Q I'd like to refer for just a minute to GCG-4.
- A (Witness Madan) Okay.
 - Q Terminal and splice investment per line.
- A (Witness Madan) Right.
- Q The default there for aerial is 32 and buried is 42.50.
 - A (Witness Madan) Right.
- Q Did you determine that those two values did not meet the standard that you have established?
- A (Witness Madan) I'm not sure that I can answer that question yes or no. What we determined was that the cable values appeared to be low. They appeared to be low both based on the fact that the total cost to the material cost in the manual is two and a half to one. For every dollar of material the total installed cost is like two and a half dollars. We figured that was low, and it turned out that a number more like \$6 to \$7 is much more reasonable for that particular input.

We then asked BellSouth to give us the data with regard to its material cost, its installation cost, its engineering cost, its vendor cost, only related to activity that occurred within the last year and on those gauges that we believed the Hatfield Model called for. We then took those numbers and found out that contained in those numbers

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were the price of the terminal and splice, that the
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    accounting system did not segregate those costs; and,
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    therefore, what we did is we said, if we are going to use
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    those costs that we develop -- And there was no way to
    break them out. There would have to be a very detailed
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    study to break these numbers out, and we've done some
    estimates on it, but there was no way to break it out, so
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    we left them in the cable cost and forced the terminal and
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    splice cost to zero, which basically accomplished the same
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    thing. So in other words, we have integrated what were two
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    inputs in Hatfield, the terminal and splice, and the cable
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    into one input. It doesn't make a big difference; we
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    simply combined them.
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- Q And that is reflected on page twenty -- the table on Page 26 of your testimony, isn't it?
 - A (Witness Madan) I'm sorry?
- 17 Q The cable prices.

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- 18 A (Witness Madan) Yes.
- 19 Q They appear in that right-hand column?
 - A (Witness Madan) That's correct, and our numbers, as we say in the footnote, includes the prices for the terminal and splicing.
 - Q Well, how much of the values that appear in that right-hand column are attributable to terminal and splicing?

A (Witness Madan) We don't know for sure, but an estimate would be in the 18 to \$20 range perhaps.

- Q My question is how much -- how much of each of these values relate to the terminal and splicing value that appears in the Hatfield Model?
- A Again, I think we've been pretty direct on what we did. The information that we got combined them, so we have no way of being absolutely certain. But on an overall basis, an 18 to 20% reduction looks like it may be in the ball park.
- Q But you made no independent evaluation that the \$32 and the 42.50 for aerial and buried do not meet your standard?
- A (Witness Madan) Well, again, I don't know what you mean by do not meet our standard. We have that information, and where it's appropriate to combine two inputs into one to get the correct information, we believe we've done that. Rather than guess at it, we've simply combined both inputs into one, and we believe that's appropriate. And when you combine them, they do produce a result that is significantly different from the default.
- Q Well, in fact, what you did is obtain data from BellSouth that had combined them and you had just accepted that without doing any further evaluation of the Hatfield inputs individually; isn't that true?

A (Witness Madan) No, that's not true, and maybe at this early stage let's get this issue clear. We've had this debate in other places of, quote, just accepting data from AT&T. We got data. We analyzed it, and it became clear to us when we read the chart of accounts and the data we got that what BellSouth had given us was cable data plus terminal data.

We looked at it. We requested that this data to be broken out. There was no way to break this data out. It's just too complicated and too big a job. The chart of accounts does not call for a separation of that data. So, therefore, what we did is we didn't just, quote, accept the data. We took the data. We worked with it. We produced our independent analyses of what we believed the proper inputs to be. In this case it would be the cable sizes and the installed costs, and we knew the installed costs would include the terminal. We determined that very early. And, therefore, from the very first time we ran the model, we always set the terminal cost to zero.

In no case did we, quote, just accept data from BellSouth. That just did not occur. We had a significant amount of data, more generally than data that we have requested in rate cases where we request tons and tons of data from a utility. This data was provided to us in a straightforward manner. We took the data. We adjusted

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it. We worked with what we believed an independent value should be, and then we adopted it.

Q In obtaining the data that you used from BellSouth, did you talk to a lot of people at BellSouth? Did you have one particular contact person or a panel of people? Can you describe how that operated?

A (Witness Madan) We had a panel of people. There were several people. There was a cost group that was headed by Jim Anderson. There was a contact group. There were particular contact people within the cost group that we worked with, and probably four or six key individuals; and Mr. Dirmeier, who is a witness here, had the majority of the contact. And we had several meetings on-site, and then a significant amount of information back and forth between the contact group and ourselves.

Q Were some of these people some of the same people developing or working on the BCPM model?

A I don't know. I don't believe they were working on the BCPM model as such. They may have been working on BellSouth's inputs to the model. When we first started, of course, it was just on the cost dockets, and at that time Bell was developing and had developed its own cost model or the TELRIC engine, and I think the majority of these people were involved in that effort. It was only later on that some of these people crossed over and worked with regard to

BCPM, and I'm not sure which ones of them directly worked on BCPM. It was not our function to look at BCPM, and that was not a focus of our inquiry. Our mission with this group was to get them to give us the information that we wanted. And in most cases, at the time we were doing our work, I think we had a facility to run the HAI model. We did this independently, looked at what we needed, and specifically asked this group just for input information and nothing else.

Q Did you look at or were you provided copies of BCPM cost inputs?

A (Witness Madan) Yes, later on, significantly later on. I think the first one we did was -- I'd have to refresh my memory -- perhaps in Kentucky, several months, maybe a little shy of a year from when we started the engagement, I mean significantly later.

Q When did you start your evaluation of the cost inputs for Florida, before or after the Kentucky time you're talking about?

A (Witness Madan) After. Although, I mean that -but I just have to modify that slightly, and say that when
you mean Florida you mean this proceeding. Of course, all
of the work we have done before would carry over into this
proceeding in terms of the logic, but the specifics were
after.

- Other than BellSouth, have you personally talked 1 with anybody from another ILEC or interexchange carrier or 2 any other RBOC? 3 (Witness Madan) For what? 4 To determine whether the HAI model inputs were 5 reasonable. 6 (Witness Madan) I don't believe that we've had 7 discussions of the kind you are talking about. Mr. Newton has worked for Southern New England Telephone, and we've 9 asked him from time to time to check on inputs. Our focus 10 is on inputs. It's all inputs. It's not the logic of this 11 model. We take it as a given, and so in certain cases 12 where there were engineering estimates or things of that 13 nature, we would request Mr. Newton to make contacts with 14 whoever he knew out in the field or with other 15 professionals to validate some of the data for us. 16 My question did relate to the input values that 17 you were evaluating, and so the question is: Did you have 18 any conversations yourself with representatives of other 19 RBOCs, ILECs or interexchange carriers? 20 (Witness Madan) No. 21

 - I'd like to refer you for just a moment to GCG-3, "NID and Drop" is the title of that --
 - (Witness Madan) Okay.

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25

-- exhibit, and particularly with regard to Page

1 4.

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- 2 A (Witness Madan) Okay.
 - Q Now there in paragraph 3 near the bottom of the page you've adopted 35 minutes for the installation time associated with NID; is that correct?
- 6 A (Witness Madan) That's correct.
- 7 Q Now is that based on information you got from 8 BellSouth?
- 9 A (Witness Madan) Yes.
- 10 O Did you change that at all?
- 11 A (Witness Madan) No.
- 12 Q And there is also in the next paragraph, 4,
- 13 travel time, 22 minutes. Is that based on information you
- 14 got from BellSouth?
- A (Witness Madan) Yes, it is. This is a series of information regarding this group of inputs that we got from
- 17 BellSouth.
- 18 Q And did that originally come to you in a

 19 handwritten document for each state served by BellSouth?
- A (Witness Madan) Amongst other things. There was this one page that you're referring to.
- 22 O It looks kind of like this?
- 23 A (Witness Madan) We've seen that before.
- Q What other document did you see that supported

- A (Witness Madan) Well, there were --
- Q Those values.

A (Witness Madan) Yeah, in this group of documents my recollection is that there were data responses that Bell had provided in other proceedings. We had requested as well information and catalog information and price information with regards to the NID itself. Those are provided to us. And then we took that information and worked up, if you would, the inputs that are in GCG-3.

With regard to the studies that backed up the travel time, we did not have time or the facility at this time to redo those studies. And on those particular ones, we did rely on the studies provided by Bell as being estimates from the subject-matter experts.

- Q You've also in paragraph 6 at the top of the next page adopted average drop length of 250 feet for aerial and 200 feet for buried; is that correct?
 - A (Witness Madan) Yes, that's correct.
- Q And, again, is that based on information you got from BellSouth?
- A (Witness Madan) That is based -- And that's on that sheet you have, of course. What we did is we did have discussions and basically took into accourt the fact that the buried drop is a fixed price from anywhere up to 500 feet, so on the buried the distance didn't matter that

much because it's a fixed price; and on the price of material, we are actually less than the Hatfield default.

- Q Where did these values come from specifically?
- A (Witness Madan) They came from subject-matter experts that Bell relied on to produce those studies. We did not have any contact with the source people themselves. Our contact was through the liaison group.
- Q What did you do to independently verify the validity of these values?

A (Witness Madan) We had discussions, and there were several discussions of some concern from us regarding that particular exhibit, and we went back and forth. We were satisfied that on the buried there is no exposure because it's a fixed price, and as I say, the cost of material we came up with was actually less than the Hatfield; and wherever it was less, we put those numbers in.

On the aerial, there is a problem. Our number for material is less than the HAI input. It's about 10 or 20% lower than what Hatfield estimated, but with regard to the drop, there wasn't any way to particularly verify that on a statistical basis given the nature of the proceedings and the time frames in which they were progressing. What we did do is a sensitivity study around it, and we dropped the 200-foot length to a hundred feet, and we found that

1	the impact on the entire loop was less than a quarter. So
2	again, it wasn't something that was of great concern to
3	us. It had some impact. We verified it. We went to the
4	extent of satisfying ourselves that this was not a big
5	exposure, area of exposure, and basically left it at that.
6	We've done that sensitivity study, and it's worth less than
7	a quarter on the entire loop; and, of course, we've given
8	you the benefit of the lower prices that we obtained from
9	BellSouth as being the current prices for material, which
10	is actually less than what you all had estimated.
11	Q With respect to these values, you talked to some
12	folks at BellSouth and relied upon their opinion and
13	judgment; is that correct?
14	A (Witness Madan) No, my previous answer is
15	correct. We went
16	Q You did not rely on the opinion and judgment of
17	the people at BellSouth for these values?
18	A (Witness Madan) I think the previous answer
19	describes what we did completely.
20	Q Can you answer my last question, please? Did you
21	or did you not rely on the judgment of the people at
22	BellSouth?
23	MR. CARVER: I'm going to object. It's been

COMMISSIONER DEASON: Objection sustained. The

asked and answered.

24

question has been asked and answered. 1 Let's move on to GCG-5, please. 2 (Witness Madan) Okay. A 3 Lei's look at Page 5 of that exhibit. 4 (Witness Madan) Okay. 5 In paragraph 1, the cost per foot of copper 7 distribution, you relied, again, on data supplied from BellSouth; is that correct? (Witness Madan) Yes, this is a fairly 9 substantial database that we got from BellSouth, and we 10 basically obtained the data we needed. 11 And in paragraph 5 which refers specifically to 12 values for labor, that also was based on data from 13 BellSouth; is that correct? 14 (Witness Madan) That is correct, but I mean 15 that's quite simply the negotiated union labor rate. I 16 mean that's nothing that BellSouth gave us. That's a 17 matter of the rate -- the rate that is in the contract, 18 19 80 --Is it your opinion that the negotiated union 20 labor rate is the most efficient labor rate for Florida? 21 A (Witness Madan) I think for purposes of this 22 proceeding it's up to the Commission to decide, but it

assume that you can take a \$41 labor rate and make it go to

would seem to me it would be unreasonable for somebody to

23

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1 \$28 on the basis of five people meeting up in New York 2 somewhere.

- Q Let's move over to GCG-10, Page 3 of that document.
 - A (Witness Madan) GCG-10?
- 6 Q Yes, sir.

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- 7 A (Witness Madan) Okay
- 8 Q These are the copper and fiber sizing factors.
- 9 A (Witness Madan) Right.
 - Q Now am I correct in saying that the inputs for this exhibit, the inputs are the sizing factors, the output is the utilization rate? In other words, you've determined a sizing factor that when it's put into the model ends up in a utilization rate as an output?
 - A (Witness Madan) Yes. We determined what we wanted the result to be, and the HAI model doesn't give you that facility to do that easily. It doesn't say, Here is the output you want, put that in, and we'll compute it for you. It tells you what the input should be, so we had to iterate this thing a couple of times to make sure that the output came out to be what we wanted it to be.
 - Q Based on the information you got from BellSouth for distribution cable, you found that they had a 41.3% utilization rate, and you experimented around until you came up with a sizing factor that produced that particular

utilization rate; is that correct?

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(Witness Madan) If your question goes to what we did mechanically, that is correct, and Mr. Dirmeier could respond to the mechanics of it. If the question goes to what are the engineering considerations, Mr. Newton will answer that question.

We basically went through a process with Mr. Newton of deciding what was reasonable. 41.3 was reasonable. We then -- Mr. Dirmeier ran the model and produced the input that would give us that answer.

Is the data that you relied upon for these values, was that embedded data?

A (Witness Madan) Well, it's current data. I don't know what you mean by embedded data. This is as of today or as of the date we got the data the number of lines out there in the field versus the capacity in the field, so it's current forward-looking data. It's not the data that existed in 1960.

It reflects all the cable that is in the ground today that's been there for -- the day it was installed?

(Witness Madan) Yes.

C & N REPORTERS

- What did you do to make it look forward-looking?
- (Witness Madan) I'll let Mr. Newton answer why he believes 41.3 is a reasonable forward-looking fill factor.

(Witness Newton) What we did is we took all the 1 results from all of the nine BellSouth states and stacked 2 them up togetler to see how they related to each other. In 3 addition, I talked to some of my former colleagues at SNET, 4 about the reasonableness of those on a going-forward basis. Obviously there is some difference between states and companies, but we determined along with another 7 gentleman that works with me that these were figures that 8 we would anticipate on seeing in the next several years, so 9 we used them. 10

Q Mr. Newton, if I understand your answer, it was that you talked to several people, but you made no particular adjustment to make it different? You came to the conclusion that it was forward-looking as it was -- as it is, and made no further adjustment; is that correct?

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A (Witness Newton) Based on my judgment and my discussions with the people that I mentioned, it was determined that these were appropriate numbers to use.

Q Mr. Newton, in today's environment where you have customers out there that have computers in their homes and PAX machines, the growing popularity of the Internet, doesn't it seem logical to you that there is going to be more utilization of the plant that is in the ground?

A (Witness Newton) I think a lot of that has already been seen as far as putting in second lines and

stuff like that. It might possibly increase what it's --

- 2 Q Do you know what number exhaustion is?
 - A (Witness Newton) Pardon?

- Q Do you know what number exhaustion is?
- 5 A (Witness Newton) Number exhaustion? Absolutely.
 - O Is that a growing problem?
 - A (Witness Newton) It is. That's primarily caused by -- well, one of the large reasons is your cellular telephones are taking up huge, huge blocks of numbers in the numbering series.
 - Q Mr. Madan, I believe you mention again in your summary that you left two important factors out of your evaluation here, and that was cost of capital and depreciation. Was that your decision not to evaluate these two factors, or did BellSouth ask you not to investigate them?
 - A (Witness Madan) No, very early on when we were doing the engagement and we started with Version 2 of the model and we were looking at the substantial amount of work that had to be done simply in understanding the inputs and understanding the manual, as it were, that we had several discussions, I think that we initiated, as to what the proper scope would be; and just given our experience as we go around the country participating in just numerous rate cases on behalf of commissions and advocates and everybody

We have asked those questions every which way. We have reviewed whatever data you all have provided to us, which isn't very much.

- Q Have you been provided a list of source documents?
- A (Witness Madan) We have seen some source documents. We've seen some under protective cover. I think the most disclosure we ever got was something that came out of Louisiana. That was protected. It certainly wasn't sorted. It had no narrative. It was difficult to read, difficult to understand, and I think that's the best we've got.
- Q Can you tell me right now what documents that you have looked at that were relied upon by MCI and AT&T?
- A (Witness Madan) I think discovery that's come in response to most of -- responses to most of the discovery we've engaged in. I cannot give you an exhaustive list, but whatever has come in we have looked at. And in Louisiana, I believe, MCI and AT&T limited physically the people that could review these documents to 10 or 20 or 12, and we were one of the 12 allowed to look at the documents, so we've seen those and other responses in other proceedings.
- Q In response to interrogatory -- or Production of Document Number 57 in this proceeding, you were asked, or BellSouth was asked to produce all the documents that you

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relied upon in doing your evaluation. Did that include any
    of the information that was utilized by AT&T or BellSouth?
             (Witners Madan) Utilized by AT&T or BellSouth?
              I'm sorry.
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              (Witness Madan) MCI you mean?
 5
              Yes.
 6
         0
              (Witness Madan) I don't believe we have anything
 7
    that was relied upon by AT&T or MCI.
         0
              Thank you.
 9
              MR. COKER: That's all I have.
10
            COMMISSIONER DEASON: Mr. Melson?
11
             MR. MELSON: No questions.
12
            THE COURT: Staff.
13
              MR. COX: Staff has no questions.
14
             THE COURT: Commissioners.
15
              (NO RESPONSE)
16
             COMMISSIONER DEASON: Redirect?
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             MR. CARVER: No redirect.
18
             COMMISSIONER DEASON: Exhibits.
19
              MR. CARVER: BellSouth moves Exhibit 95.
20
             COMMISSIONER DEASON: Without objection Exhibit
21
    95 is admitted.
22
              COMMISSIONER DEASON: Thank you gentlemen, you
23
   may be excused.
24
              Are we there?
25
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1	MR. WAHLEN: We are there. We are at the witness
2	everyone has been waiting for, the last one. Mr. Curry.
3	COMMISSIONER GARCIA: Mr. Wahlen, noticing you
4	haven't asked very many questions, should we have taken
5	your witness first and let you go home?
6	MR. WAHLEN: No, I think you'll understand this
7	witness a lot better after all this, rather than before all
8	this.
9	COMMISSIONER DEASON: Mr. Curry, since you've
10	been here all week, I assume you've been sworn.
11	WITNESS CURRY: Yes, I have.
12	MR. WAHLEN: Are you ready to proceed?
13	WITNESS CURRY: Is that on? Yes, I have.
14	Whereupon,
15	DENNIS CURRY
16	was called as a witness on behalf of AllTell and, after
17	being duly sworn, testified as follows:
18	DIRECT EXAMINATION
19	BY MR. WAHLEN:
20	Q Would you please state your name and business
21	address?
22	A It's Dennis Curry, and my address, business
23	address is One Allied Drive, Little Rock, Arkansas.
24	Q Are you the same Dennis Curry who prepared and
25	caused to be filed on August 3rd direct testimony

1	consisting of 11 pages?
2	A Yes, I am.
3	Q Are there any changes or corrections to your
4	direct testimony?
5	A No, there isn't.
6	Q Did you also file rebuttal testimony on September
7	2nd, 1998, consisting of six pages?
8	A Yes, I did.
9	Q Are there any changes or corrections to your
10	rebuttal testimony?
11	A No, there isn't.
12	Q If I were to ask you the questions contained in
13	your direct and rebuttal testimony today, would your
14	answers be the same as those in your direct and rebuttal
15	testimony?
16	A Yes, they would.
17	MR. WAHLEN: I'd like to move Mr. Curry's direct
18	and rebuttal testimony into the record at this time.
19	COMMISSIONER DEASON: Without objection the
	direct and rebuttal testimony will be inserted in the
20	
	record.
22	
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24	
25	

ALLTEL FLORIDA, INC. DOCKET NO. 980696-TP FILED: 08/03/98

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		DIRECT TESTIMONY
3		OF
4		DENNIS CURRY
5		
6	Q.	Please state your name.
7		
8	Α.	My name is Dennis Curry
9		
10	Q.	By whom are you employed and in what position?
11		
12	A.	I am employed by ALLTEL Communications Service Corporation
13		as Director of Regulatory Methods and Universal Service.
14		
15	Q.	What is your business address?
16		
17	Α.	My business address is One Allied Drive, Little Rock,
18		Arkansas 72202.
19		
20	Q.	Please describe your education and work experience.
21		
22	A.	I am a graduate of RCA Institutes in New York City with an
23		Associates Degree in Electrical Engineering. I have worked
24		or the last 32 years in the telephone industry primarily in
25		the areas of jurisdictional separations, access charges and

1		universal service.
2		
3	Q.	What is the purpose of your testimony?
4		
5	Α.	My testimony serves two purposes. The first purpose is to
6		explain the universal service embedded cost methodology used
7		by all of the small local exchange companies ("small LECs")
8		in this docket. These companies include ALLTEL Florida,
9		Inc. ("ALLTEL"), Vista-United Telecommunications, Northeast
10		Florida Telephone Company, Frontier Communications of the
11		South, Inc., TDS Telecom/Quincy, GTC Inc., and ITS
12		Telecommunications Systems, Inc.
13		
14		The second purpose of my testimony is to attest to the cost
15		information used as inputs in ALLTEL's embedded cost study,
16		and present the results of that study.
17		Waldish Du
18	Q.	Have you prepared an exhibit to accompany this testimony?
19		
20	A.	Yes. Exhibit (DC-1) is a composite exhibit containing
21		the embedded cost study and supporting documents prepared
22		for ALLTEL under my direction and supervision for this
23		proceeding. The information in that exhibit is true and
24		correct to the best of my information and belief.

1		Small Company Methodology
2		
3	Q.	What was the basic premise for determining the cost of
4		universal service for the small LECs in this proceeding?
5		
6	Α.	All embedded non-traffic sensitive plant investments and
7		their associated costs along with the local portion of the
8		embedded traffic sensitive plant investments and their
9		associated costs were assigned to iniversal service. All
10		non-plant related expenses currently allocated to local
11		service through the separations process were also assigned
12		to universal service.
13		
14	Q.	What methodology was used by the small LECs?
15		
16	A.	All of the small LECs used Part 36 jurisdictional
17		separations procedures in developing the embedded costs for
18		each of the companies.
19		
20	Q.	Is the Part 36 methodology used by the small LECs consistent
21		with the new law as set out in HB 4785?
22		
23	Α.	While I am not a lawyer, I believe that HB 4785 has set out
24		certain prescribed rules for small rural LECs under 100,000
25		access lines. Under my reading of new Section 364.025,

1		Florida Statutes, the Legislature has allowed the small LECs
2		in Florida an opportunity to develop their universal service
3		costs by using an embedded cost methodology. The
4		legislation also goes on to say that these studies may use
5		fully distributed costing methodologies. By utilizing FCC
6		section 47 C.F.R., Sections 32, 36, 64 and 65, I believe
7		that the small LEC methodology satisfies the legislative
8		requirements for embedded studies.
9		
10	Q.	Is the methodology used by the small LECs consistent with
11		the FCC's approach for universal service?
12		
13	Α.	The approach of using embedded costs is consistent with what
14		the FCC has stated in its Universal Service Order. Therein,
15		the FCC stated that the available proxies are not
16		appropriate for small rural local exchange carriers at this
17		time. That order goes on to say that rural LECs should
18		continue to calculate their Universal Service Costs
19		utilizing embedded costs until at least January 1, 2001.
20		
21	Q.	What was the base year for the small LEC studies?
22		
23	Α.	All of the small LECs used 1997 costs for their embedded
24		studies. Each of the small LECs will attest to the validity
25		and the accuracy of their company specific costs. As far as

2		specifically to ALLTEL costs only.
3		
4	Q.	What rate of return was used in the studies?
5		
6	Α.	All of the small LECs used an 11.25% return on net
7		investment in the studies. This rate is the currently
8		authorized interstate rate for rate of return regulated
9		telephone companies.
10		
11	Q.	Does the small company methodology include modifications to
12		Part 36 for the universal service cost study?
13		
14	A.	Yes, non-traffic sensitive plant was assigned 100% to the
15		state jurisdiction "local service bucket" in the cost study.
16		These costs included all loop related plant, line port
17		equipment, and COE transmission equipment utilized for
18		providing local dial tone to customers. All non-traffic
19		sensitive local switching equipment was identified and
20		allocated in the same manner as loop investment.
21		
22	Q.	How does the small company methodology allocate the loop
23		investment in the universal service cost study?
24		

the inputs are concerned, I can answer questions relating

A Gross Allocator Factor of 100% was assigned to the state

jurisdiction and allocated all loop related plant to local service bucket. This was done in order to capture all loop costs for the purpose of this universal service study utilizing Part 36 costing methodologies.

5

6 Q. How does the small LEC methodology allocate the local 7 switching investment?

8

Each company analyzed their continuing property records to 9 determine the non-traffic sensitive investment in line 10 related equipment, common equipment and power equipment. 11 The non-traffic sensitive local switching investment was 12 then subtracted from the total local switching investment to 13 determine the local switching traffic sensitive investment. 14 Power and common investment was spread to traffic sensitive 15 and non-traffic sensitive switching based on the relative 16 investment in each. A "local dial office factor" was then 17 developed by multiplying the percent of non-traffic 18 sensitive local switching investment times 100% and adding 19 the product of the percent traffic sensitive investment 20 times the "local" unweighted dial equipment minutes "DEM" 21 Factor. The dial office factor was then substituted for the 22 DEM Factor in the universal service cost study. 23

24

25 Q. Does the small LEC methodology include any additional

adjustment to the Part 36 Study to develop the embedded cost

of local service?

A. Yes, first for those companies that could not separate local private line costs from switched service costs, the small LEC approach moved local private line loop counts, local private line termination counts, local private line circuit mile counts, local private line exchange trunk circuit equipment investment and local private line exchange trunk cable and wire investment to the interstate jurisdiction for the study. Moving these costs to interstate provides a way for the small LEC to identify its embedded universal service costs, which would exclude private line costs from the embedded costs as requested by the Commission Staff.

Second, the small LEC methodology adjusts the Part 36 study to exclude costs for local private line billing and collection functions from the embedded universal service costs. This is done by reassigning local private line allocation factors to the interstate jurisdiction. Factor changes included: contacts, billing, and user allocations. These local private line factors were assigned to the interstate jurisdiction in Part 36 to ensure that local private line billing and collection costs were excluded from the embedded costs of universal service as requested by this

2		
3		Third, all expenses, investments and reserves associated
4		with pay telephones were removed from the study.
5		
6	Q.	How are the results of the model presented?
7		
8	Α.	The resulting embedded universal service costs were divided
9		by the company's average 1997 switched access lines counts
10		and then divided by twelve months to develop the company's
11		study area average monthly universal service cost per access
12		line.
13		
14		ALLTEL's Study
15		
16	Q.	Please describe ALLTEL.
17		
18	Α.	ALLTEL is a small local exchange company that serves
19		approximately 80,000 access lines in several counties in
20		north central and northeastern Florida. ALLTEL has not
21		elected price regulation and is regulated under the
22		Commission's traditional form of rate base, rate of return
23		regulation.
24		
25	Q.	Please describe the data used in ALLTEL's embedded cost
	4.50	

Commission.

1		study.
2		
3	A.	For the embedded cost study, I used 1997 financial
4		information for the regulated operations of ALLTEL.
5		Thirteen-month averages for the period from December 31,
6		1996 through December 31, 1997 are reflected for
7		investments, reserves, and deferred income taxes. For
8		expenses and other taxes, I used 1997 calendar year data.
9		Depreciation reserve and the associated expense balances are
10		stated in accordance with the last approved depreciation
11		rates prescribed by the Florida Public Service Commission.
12		The data that supports the embedded cost study is the same
13		as that reflected in the Annual Report (PSC/AFA 18) and the
14		Telephone Earnings Surveillance Report (PSC/AFA 15), which
15		are filed with the FPSC, and the underlying data used to
16		calculated the Part 36 cost study submitted to the National
17		Exchange Carrier Association (NECA).
18		
19	Q.	Are the rate base items and expense data utilized in your
20		costs in the embedded study the same that you utilized in
21		determining your company's access costs for interstate
22		services you provide?
23		
24	Α.	No. For this embedded study, an adjustment was made to
25		exclude all paystation related costs, since these costs were

1		included in the 1997 interstate cost study submitted to
2		NECA. On April 15, 1997, these costs were reclassified as
3		non-regulated consistent with the FCC's Paystation Order in
4		CC Docket 96-128.
5		
6	Q.	Have you made adjustments to ALLTEL's study for non-
7		regulated or deregulated service you provide to your
8		customers?
9		
10	Α.	Yes. Our company adheres to the FCC mandated rules as
11		codified in the Code of Federal Regulations (CFRs) for Parts
12		32, 36, 64, 65 and 69. Non-regulated activities have been
13		removed from the regulated accounts through the application
14		of FCC Part 64 rules. This is consistent with the
15		procedures ALLTEL follows in the development of its
16		interstate cost study that is submitted to NECA.
17		
18	Q.	What are the embedded costs of basic local service for
19		ALLTEL Florida, Inc. based on the methodology described
20		above?
21		
22	A.	ALLTEL's total embedded cost of universal service was
23		calculated to be \$38,533,609 and the average cost per line
24		per month is \$41.97.
25		

1	Q.	Does	that	conclude	your	prepared	direct	testimony?
2								
3	A.	Yes.						
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ALLTEL FLORIDA, INC. DOCKET NO. 980696-TP FILED: 09/02/98

i		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		REBUTTAL TESTIMONY
3		OF
4		DENNIS CURRY
5		
6	Q.	Please state your name.
7		
8	λ.	My name is Dennis Curry.
9		
10	Q.	Are you the same Dennis Curry who previously filed direct
11		testimony in this docket?
12		
13	λ.	Yes.
14		
15	Q.	What is the purpose of this rebuttal testimony?
16		
17	λ.	The purpose of this testimony is to respond to the witnesses
18		who have suggested that there is no need for a state
19		universal service fund in Florida. This testimony is being
20		submitted on behalf of the small local exchange companies in
21		Florida.
22		
23	Q.	Is the need for a state universal service fund one of the
24		issues identified in the Order on Prehearing Procedure in
25		this docket?

1 A.	No. The direct testimony suggesting that there is no need
2	for a state universal service fund does not relate to any of
3	the issues identified in the Order on Prehearing Procedure.
4	Moreover, while I am not a lawyer, my reading of HB 4785
5	suggests to me that the Legislature did not specifically
6	request a recommendation from the Commission regarding the
7	need for a state universal service fund. Nevertheless, if
8	the Commission decides to explore this subject, I think that
9	they should be aware of the ramifications of this issue for
10	the small local exchange companies ("small LECs") operating
11	in Florida.

13 Q. How many small LECs are operating in Florida?

14

15 A. There are seven (7) small LECs operating in Florida. These
16 small LECs serve approximately two (2) percent of the access
17 lines in Florida. As a general rule, the small LECs serve
18 rural, rather than urban areas. These rural areas tend to
19 have fewer access lines per square mile and cost more to
20 serve than more dense, urban areas.

21

22 Q. From the perspective of small LECs, is there a need for a 23 state universal service fund in Florida?

24

25 A. Yes. If the Commission is concerned about maintaining and

promoting universal service in rural areas, there is a need for a permanent state universal service fund.

3

4 Q. Please explain.

5

The objective of a universal service program is to ensure 6 λ. that basic local exchange services are available to a large 7 number of customers at affordable prices. The federal 8 Telecommunications Act of 1996 ("Act") was intended to 9 promote local exchange competition while maintaining and 10 improving universal service. As part of this effort, the 11 Act requires the removal of implicit subsidies from rates, 12 and the establishment of an explicit mechanism to keep basic 13 telecommunications rates just, reasonable 14 local The Act also discourages price differences 15 affordable. between rural and urban areas. The Act gives states the 16 authority to establish a universal service support mechanism 17 as necessary, to continue the goals of universal service. A 18 permanent state universal service fund is one explicit 19 mechanism that would accomplish these goals. 20

21

23

24

25

The cornerstone of a smooth transition to robust local exchange competition is a permanent state universal service funding mechanism that ensures competitive and structural neutrality for all telecommunications service providers.

1		This can only be accomplished by moving universal service
2		contributions that are now implicit in rate structures of
3		incumbent local exchange carriers ("ILECs") to a mechanism
4		that is explicit in nature as directed by the Act. A
5		permanent state universal service fund would allow the
6		Commission to replace displaced implicit subsidies, but
7		would not result in a windfall for any company.
8		
9		If implicit subsidies are not replaced by an explicit
10		funding mechanism, the unavoidable result will be the
11		increase in the prices of basic local exchange
12		telecommunications services. This is inconsistent with the
13		goals of universal service.
14		
15	Q.	Are there any other reasons for the Commission to conclude
16		that a permanent state universal service fund is
17		appropriate?
18		
19	А.	Yes. It appears that the FCC will eventually change the
20		existing federal universal service funding methodology for
21		small LECs. One approach being considered for the small
22		LECs is to adopt the method of funding prescribed by the FCC
23		for non-rural LECs.
24		
25		The FCC has considered federal universal service funding for

non-rural LECs and decided to change the current universal service mechanism for non-rural LECs beginning in 1999.

Under the new approach, only 25% of total universal service funding for non-rural LECs will come from the federal (interstate) jurisdiction. The remaining 75% will have to come from a state universal service fund, increased local rates or some combination of the two.

The FCC has not decided how to change the federal universal service funding methodology for rural LECs at this time, but has stated that universal service funding for rural LECs will not change until 2001. Until then, universal service funding for rural ILECs is not expected to change.

The FCC could adopt the approach it has prescribed for nonrural LECs for rural LECs. Recognizing that as a
possibility, the Commission should be in favor of the
creation of a mechanism at the state level that would allow
for the increase in prices of basic local telecommunications
services to some maximum affordable price, or increase the
company's recovery of implicit subsidies from an explicit
source such as the state universal service fund, or a
combination thereof on a revenue neutral basis. This will
assure the continued provision of basic local exchange
telecommunications service, at affordable rates in both

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urban and rural areas of the state, as required by federal
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         law.
 3
         Does that conclude your prepared rebuttal testimony?
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BY MR. WAHLEN (Continuing): Q Mr. Curry, did you prepare an exhibit to your 2 direct testimony consisting of 19 pages and labeled DC-1? 3 Yes, I did. Is the information in that exhibit true and 5 correct to the best of your information and belief? 6 A Yes, it is. 7 MR. WAHLEN: Commissioner Deason, we'd request a 8 number identified for that exhibit. COMMISSIONER DEASON: It would be identified as 10 Exhibit 96. 11 BY MR. WAHLEN (Continuing): 12 Mr. Curry, would you please summarize your 13 testimony? 14 A Yes, I will. 15 Good afternoon. Again, my name is Dennis Curry. 16 Today I am here representing the small rural LECs of 17 Florida. The small -- the rural LECs include 18 AllTell-Florida, Vista-United Telecommunications, Northeast 19 Florida Telephone Company, Frontier Communications of the 20 South, TDS Telecom-Quincy, GTC, Incorporated, and ITS 21 Telecommunications Systems. 22 The purpose of my testimony is to sponsor an 23 embedded cost model for determining the cost of universal 24 service for small rural LECs. House Bill 4785 set out

certain prescribed rules for the small rural LECs. While I'm not a lawyer, it appears to me, and the small LECs believe, that Section 364.025 permits the use of embedded costs to determine the cost of universal service by small companies under one hundred thousand lines. This is also consistent with federal policy which mandates that rural LECs use embedded costs to determine the cost of universal service until at least January 1, 2001.

The Federal Communications Commission determined the proxy models do not accurately predict costs in low density rural areas. Without critic'zing either of the models being considered in this case, I think it's safe to say that the record developed this week supports the FCC's conclusion.

The small rural LEC embedded cost methodology starts with existing Part 36 allocation rules. The rules are modified to allocate all non-traffic sensitive plant investment to the cost of universal service. Local switching, traffic-sensitive plant investment is allocated to the cost of universal service using dial equipment, minutes factor with no small company, toll waiting factor applied. All other Part 36 allocations to the exchange operation are assigned to the cost of universal service. The small LEC embedded cost methodology is consistent with the methodology used by the proxy models in determining the

1	cost of universal service. That concludes my summary.		
2	Thank you.		
3	MR. WAHLEN: The witness is available for cross		
4	examination.		
5	COMMISSIONER DEASON: Any questions?		
6	COMMISSIONER CLARK: Staff is the only one that		
7	had questions.		
8	COMMISSIONER DEASON: Okay. Staff.		
9	CROSS EXAMINATION		
10	BY MR. COX:		
11	Q Good afternoon, Mr. Curry. Will Cox on behalf of		
12	the Commission staff.		
13	A Good afternoon.		
14	Q Mr. Curry, do you have a copy of the legislation		
15	that gave rise to this proceeding with you?		
16	A Yes, I do.		
17	Q If you could turn to the section of that that		
18	pertains to small companies which is 364.025, I believe		
19	(4)(C), and if you could read the first sentence of		
20	paragraph (C).		
21	A "In determining the cost of providing basic local		
22	telecommunications service for the small local exchange		
23	telecommunications company which serve less than one		
24	hundred thousand lines, the Commission shall not be		
25	required to use the cost proxy model selected pursuant to		

- paragraph B until a mechanism is implemented by the federal
 government for small companies, but no sooner than January
 1, 2001. The Commission shall calculate a small local
 exchange telecommunication company's cost of providing
 basic local telecommunications service based on one of the
 following options: A different proxy model, or a fully
 distributed allocation of embedded costs."
 - Q Now, Mr. Curry, you have been responsible for the methodology for all the small companies in this proceeding; is that correct?
 - A That's correct.

- Q And on behalf of AllTell you filed an embedded cost methodology consistent with your reading of the requirements of this statute, correct?
 - A That's correct also.
- Q What similarities exist, just in general terms, between the embedded cost methodology you filed compared to the BCPM cost proxy model methodology filed by the other parties -- the parties that sponsored it in this proceeding?
- A Well, basically the proxy models, again, they
 take all the non-traffic sensitive costs and assign it to
 the cost of universal service. In addition,
 traffic-sensitive costs associated with local switching are
 assigned by a factor that equates to local usage through

- the end-office switch, and that's basically the cost drivers in the embedded cost study also.
- Q Okay. And would these same similarities be true
 when comparing your methodology to the Hatfield Model?
 - A Yes, Hatfield does the same.
 - Q Okay. Now if you'd turn to the exhibit attached to your direct testimony, DC-1, Page 1, it refers to your study as the embedded cost of universal service study; is that correct?
- 10 A Let me find it.
- 11 Q Okay.

6

7

- 12 A Attachment DC-1?
- 13 Q DC-1, yes.
- 14 A Yes, I have it. And the question was again?
- 15 Q That that is the embedded cost of universal 16 service study, and that is for AllTell; is that correct?
- A The summary at the bottom of that is, yes. The summary at the bottom of that is, yes. The summary at the bottom of that is, yes. The
- Q Okay. And that stands for the 1997 universal service revenue requirement?
- 21 A Yes, it does.
- Q Now this figure comes from Page 4 of your exhibit
 at Line 36 under the column labeled "Exchange;" is that
 correct?
- 25 A Yes, that's correct.

- Q And does the number shown at row 36 under the column "Total" equal the 3um of the other columns to the right?
 - No, it doesn't.

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- Q Okay. That total there would be 46 million 613
 - A Right, that's total of -- not on a universal service cost, but that would include access and special access costs in that number.
 - Q So that's total company?
- 11 A That's total company, yes.
 - Q So is it correct to say that in your study the 38 million figure is about 83% of AllTell's total revenue requirement, and that is considered the cost of universal service?
 - A Yes, it would.
 - Q It appears also that when you look at the total cost per line produced by the BCPM model running inputs for AllTell you have a consistently higher cost per line in the embedded method in your testimony; is that correct?
 - A I'd have to look at my summary here. The information I give you, I didn't break it down to a cost per line. I'm going to have to go back into the studies themselves to look at that.
- 25 Q Okay.

```
MR. COX: Commissioner Deason, at this time staff
 1
   would ask that we mark as an exhibit -- I had forgotten to
 2
 3
    do this -- the deposition transcript and the Late-filed
    Deposition Exhibits 1 through 5. It's identified as DC-2.
             COMMISSIONER DEASON: It will be identified as
 5
   Exhibit 97.
 6
   BY MR. COX (Continuing):
7
    Q Do you have a copy or that exhibit with you,
   Mr. Curry?
           From the deposition?
10
        O Yean, particularly I want to look at the
11
    late-filed deposition exhibits.
12
           Yes, I have it.
13
        Q Okay. And on, I think it's Page 48 of the
14
   exhibits, of this exhibit, which is now Exhibit 97, can you
15
   turn with me to that page?
16
             Yeah, I've got to question whether we are looking
17
    at the same numbers now.
18
           Okay.
19
        0
            Okay. On Page 48, yes.
20
            Just one moment. Maybe you can help me find this
21
   quicker than I can, Mr. Curry. This was the number you
22
    reported as a cost per line running the BCPM model for
23
   AllTell?
24
        A Well, again, I reported the total universal
25
```

- service contribution, not the cost per line to you, all right? Now the backup studies, or at least a summary of the backup studies was included with that; and that includes the cost per line in the summary of the studies themselves.
- Q Okay. I think it's on Page 48 of the exhibit.
 - A Well, there seems to be two sets of numbers.
 - Q Yeah, I've noticed that.
- 9 A I've got one here that has 1-13 on it, is the one
 10 you're looking for, and I've got a number that has another
 11 one that has number 48 on it plus the 1-13.
- 12 Q It's the one with the 48 and 1-13.
- 13 A Yes, okay.

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22

- Q Sorry about that discrepancy. We are on the same page now, and it has the figure of \$66.37 per line?
- 16 A Right, for the uncapped amount.
- 17 Q Right, for the uncapped cost per line.
- A Which compares to our cost per line of 41.97

 under the embedded methodolog.
 - Q Okay. Good. Why does the -- to the best of your understanding, why does the BCPM cost proxy model result in a significantly higher cost per line compared to your embedded cost methodology?
- A Well, I would go back to the assumption that the price of the embedded plant when we installed it must be

- much less over the average of the last 20 or 30 years as
 compared to the cost of replacement new, or forward-looking
 costs. That's the only answer there is.
 - Q Okay. There was a question on Page 91 of the Late-filed Exhibit Number 2. I guess -- part of the same, Page 91, and the question at the top of the page says: What is the anticipated federal high cost support for AllTell-Florida in 1999 based on 1997 costs?
 - A And what page was this?
- Q This was Late-filed Exhibit Number 2. My page 11 says 91 with a 2-1 at the bottom.
- 12 A Yes, I see it.
- Q Okay. You report an amount of \$1,122,399 is the anticipated 1999 federal USF amount for AllTell based on the 1997 cost?
- A Yes, I see that, and I can see that is an error
- 18 Q Okay.

4

5

7

- A It should have been 2,122,399. Sorry, I never caught that until you brought it up, and I looked at it, and I seen it was the wrong number.
- Q Okay. So the 2 million figure is the correct
 33 figure?
- A Yes, it should be two million 122, and you'll see
 the next page is the filing out of the latest USF filing

with the AllTell-Florida along with several other telephone 1 companies in Florida listed on it. 2 Okay. Are you familiar with the federal 3 universal -- the federal USF adjustment applied to some 4 companies that result in a reduction in the amount of 5 corporate expenses included in a company's USF cost based on a specific formula? 7 Yes, I am. 8 Do you know the reasoning behind limiting 9 corporate expenses for some companies receiving federal USF 10 funds? 11 The FCC felt they exceeded averages for companies 12 of those sizes, so they made an adjustment for them. 13 (Transcript continues in Sequence in Volume 27). 14 15 16 17 18 19 20 21 22 23 24

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