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BEFORE THE 1 FLORIDA PUBLIC SERVICE COMMISSION 2 3 In the Matter of: 4 PETITION OF COMPETITIVE CARRIERS DOCKET NO. 981834-TP FOR COMMISSION ACTION TO SUPPORT 5 LOCAL COMPETITION IN BELLSOUTH TELECOMMUNICATIONS, INC.'S 6 SERVICE TERRITORY. 7 PETITION OF ACI CORP. d/b/a DOCKET NO. 990321-TP ACCELERATED CONNECTIONS, INC. FOR 8 GENERIC INVESTIGATION TO ENSURE THAT BELLSOUTH TELECOMMUNICATIONS 9 SPRINT-FLORIDA, INCORPORATED AND GTE FLORIDA INCORPORATED COMPLY 10 WITH OBLIGATION TO PROVIDE ALTERNATIVE LOCAL EXCHANGE CARRIERS 11 WITH FLEXIBLE, TIMELY, AND COST-EFFICIENT PHYSICAL COLLOCATION. 12 13 14 ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT THE OFFICIAL TRANSCRIPT OF THE HEARING 15 THE .PDF VERSION INCLUDES PREFILED TESTIMONY. 16 VOLUME 2 17 Pages 210 through 394 18 HEARING 19 PROCEEDINGS: CHAIRMAN BRAULIO L. BAEZ 20 **BEFORE:** COMMISSIONER J. TERRY DEASON 21 COMMISSIONER LILA A. JABER COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER CHARLES M. DAVIDSON 22 23 Wednesday, January 28, 2004 DATE: Commenced at 9:30 a.m. TIME: 24 Concluded at 5:10 p.m. 25

FLORIDA PUBLIC SERVICE COMMISSION

1	PLACE:	Betty Easley Conference Center
2		Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
3		lallanassee, Florida
4	REPORTED BY:	TRICIA DEMARTE, RPR
5		TRICIA DeMARTE, RPR Official FPSC Reporter (850) 413-6736
6	ADDEADANCES.	(As bonotofone noted)
7	APPEARANCES:	(As heretofore noted.)
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1		EXHIBITS		
2	NUMBER:		ID.	ADMTD.
3	33	PL-1 through PL-3	214	214
4	34	(Confidential)WBS-1	230	
5	35	WBS-2 and WBS-3	230	
6	36	(Confidential)WBS-1, revised	232	
7	37	WBS-2, revised; WBS-4, WBS-5	232	
8	38	(Confidential)Shell, Covad-1	302	
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PROCEEDINGS 1 2 (Transcript continues in sequence from Volume 1.) 3 CHAIRMAN BAF7: And we have Witness Lester 4 MR. TEITZMAN: Staff would move that Pete Lester's rebuttal testimony consisting of 11 (sic) pages filed April 18, 5 2003 be entered into the record as though read. 6 7 CHAIRMAN BAEZ: Show the rebuttal testimony of Witness Pete Lester moved into the record as though read. 8 9 MR. TEITZMAN: Mr. Lester had three exhibits attached 10 to his testimony entitled, "PL-1 through PL-3," and staff would 11 request that those be moved into the record as a composite 12 hearing exhibit. 13 CHAIRMAN BAEZ: Show the hearing exhibits identified 14 as PL-1, 2, and 3 identified as hearing exhibits -- Composite 15 Exhibit 33 and moved into the record without objection. 16 (Exhibit 33 marked for identification and moved into 17 the record.) 18 19 20 21 22 23 24 25

REBUTTAL TESTIMONY OF PETE LESTER

2 | Q. Please state your name and business address.

- A. My name is Pete Lester and my business address is 2540 Shumard Oak Boulevard. Tallahassee. Florida 32399-0850.
- 5 | Q. By whom are you employed and in what capacity?
 - A. I am employed by the Florida Public Service Commission (FPSC or Commission) as an Economic Analyst in the Finance and Tax Section of the Division of Economic Regulation.
 - Q. Will you briefly summarize your educational background and experience?
 - A. I received a Bachelor of Science degree in Finance from Florida State University in March 1978. In June 1980, I received a Masters of Business Administration degree also from Florida State University. In August 1980, I began work as a material price analyst for Avco Aerostructures, a major aerospace subcontractor in Nashville, Tennessee. My responsibilities included preparing bids for subcontracts, analyzing price variances among vendors, pricing plan changes, and helping customer and government auditors.

In September 1981, I joined the Staff of the Commission as a staff analyst in the Division of Water and Wastewater. As an analyst, I was responsible for rate structure issues on file and suspend rate cases and for all finance, accounting, and rate structure issues for staff-assisted rate cases, overearnings investigations, and certificate cases. In addition, I was responsible for case coordination and scheduling, presenting staff positions to customers at customer meetings, responding to customer complaints, and conducting research projects.

In August 1990, I was promoted to an Economic Analyst position in the

Finance Section in the Division of Auditing and Financial Analysis. I now 1 | work in the Division of Economic Regulation. My responsibilities include advising the Commission on the appropriate cost of equity, capital structure. and overall cost of capital for regulated companies in rate cases and other proceedings.

Are you a member of any professional associations? 0.

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Yes. I am a member of the Society of Utility and Regulatory Financial Analysts (SURFA). I have been awarded the professional designation Certified Rate of Return Analyst (CRRA) by SURFA. This designation is awarded based upon education, experience, and the successful completion of a written examination.

In addition, I have been awarded the professional designation Chartered Financial Analyst (CFA) by the Association for Investment Management and Research (AIMR), of which I am a member. A CFA is awarded based on the candidate having qualifying work experience, meeting AIMR's standards, and passing three exams.

- Have you previously testified before the Commission? 17 0.
 - Yes. I testified for staff in Docket No. 920733-WS. Docket No. 940620-Α. GU and Docket No. 940276-GU regarding General Development Utilities, Florida Public Utilities, and City Gas Company of Florida, respectively. testified for staff in Docket No. 010006-WS regarding the Commission's water and wastewater leverage formula. The subject of my testimony was cost of equity and capital structure. In addition, as a Commission staff member, I have participated in many rate and regulatory proceedings.
- 25 0. What is the purpose of your testimony?

- The purpose of my testimony is to rebut the direct testimony of Verizon 1 Florida witness Dr. James Vander Weide. Specifically, I disagree with Dr. 3 Vander Weide's recommended cost of equity, his recommended capital structure, and his recommended risk premium. I provide an alternative cost of equity, 4 capital structure, and weighted average cost of capital for use as an input 5 into the cost model for pricing Verizon Florida's collocation services. 6
 - Q. Do you have exhibits that accompany your testimony?

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- Yes. Attached to my testimony are Exhibits PL-1 through PL-3. 8 Α.
- What are your comments about Dr. Vander Weide's estimate of Verizon 9 0. Florida's cost of equity? 10
 - Dr. Vander Weide's estimate of the cost of equity is based on a quarterly version of the Discounted Cash Flow (DCF) model applied to the Standard and Poor's Industrials. For the growth rate, he uses forecasted future earnings growth as provided by I/B/E/S through Standard and Poor's Compustat Database. He uses April 2002 stock prices and growth forecasts. He calculated a market-weighted average of 14.13% as his estimate of Verizon Florida's cost of equity. I disagree with his exclusive use of earnings growth and his proxy group of companies.
 - What is your disagreement with the use of earnings growth?
 - I believe the exclusive use of earnings growth in a DCF model can overestimate the cost of equity. The DCF model is a dividend discounting model and the growth rate component describes growth in dividends.
- Managers try to avoid dividend cuts and they will raise their company's dividend only when they believe it can be sustained. For this reason, year-25 to-year changes in earnings per share can be more volatile than year-to-year

changes in dividends per share. Projected dividend growth can differ from projected earnings growth. Therefore, I believe some weighting should be given to projected dividend growth.

- Q. What is your disagreement with the S & P Industrials as a proxy group?
- A. I basically agree with Dr. Vander Weide that the appropriate cost of equity for collocation should be based on required returns for competitive companies. However, to measure the cost of equity for companies in competitive markets, I believe a broad proxy group of companies is necessary to reflect the range of risk and return characteristics of such companies.
- 10 Q. What alternative to Dr. Vander Weide's estimate of the cost of equity 11 input do you recommend?
 - A. I recommend a cost of equity of 12.64% as an appropriate input for the cost model for pricing collocation for Verizon Florida. I calculated this cost of equity by applying a quarterly DCF model to a proxy group of 657 dividend-paying stocks covered by the Value Line Investment Survey that had positive projected dividend growth and positive projected earnings growth.
 - I used the same DCF equation as Dr. Vander Weide, which is shown on his Exhibit JVW-1. I used February 2003 stock prices and forecasts as reported by Value Line and I included a 4% flotation cost allowance.

In theory, dividend and earnings growth should be the same in the long run. However, with shorter term projections, earnings and dividend growth can be different. Therefore, for the projected growth component of the DCF model, I used the average of Value Line's projected dividend growth rate and projected earnings growth rate.

I eliminated 75 companies that had results below the forecasted BBB bond

yield as reported by the February 1, 2003 Blue Chip Financial Forecast. Since investors require a higher return on equity than on debt, results below the cost of debt are illogical. On the high end of the distribution of returns. I eliminated 11 results that were more than three standard deviations above These high results were driven by growth rates that may not be sustainable. After eliminating outliers, the average DCF result is 12.64%. On Exhibit PL-1, I provide the calculation of my recommended 12.64% cost of equity and my proxy group of companies.

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- Why are you recommending using companies in competitive markets as a 0. proxy group for determining the cost of equity for collocation?
- I believe the risks facing the wireline telecommunications network, Α. including collocation, have risen to the level of risks faced by companies in competitive markets. Current risk factors for the incumbent local exchange carriers' (ILECs') network include wireless substitution, partial network bypass by alternative local exchange carriers (ALECs), cable telephony, and Bypass risk is moderated somewhat by the financial internet services. distress in the ALEC sector.

In addition, in announcing its Triennial review of unbundled network elements (UNEs), the Federal Communications Commission (FCC) clarified that the risk-adjusted cost of capital used in calculating UNE prices should reflect the risks associated with a competitive market.

The required returns for a broad group of common stocks reflect the range of risks faced by companies in competitive markets. I believe that the use of market data for a diverse group of companies in competitive markets 25 | yields an appropriate cost of equity for pricing Verizon Florida's collocation

1 | services.

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- 2 Q. What are your comments regarding Dr. Vander Weide's recommended capital 3 structure?
- A. Dr. Vander Weide recommends a market value capital structure of 75% equity and 25% debt. He bases this recommendation on market value capital structures for the S & P Industrials and a group of telecommunications companies for the five-year period 1997 through 2001.
 - Q. Do you agree with Dr. Vander Weide's recommended capital structure?
 - A. I agree with the concept of a market value capital structure for use in calculating the cost of capital of companies operating in competitive markets but I disagree with Dr. Vander Weide's particular version. I note that Dr. Vander Weide's recommended 75% equity ratio is essentially the same as the market value equity ratio for telecommunications companies in 2001. I believe it is appropriate to use recent data for calculating the market value capital structure, as opposed to historical ranges, and match the cost of equity and capital structure to the same period.
- 17 | Q. Why do you support the concept of a market value capital structure?
- A. Financial theory supports the use of market value capital structures.

 Market values are the best expression of an asset's earning power, cash flow,
 and debt service ability. Further, the goal of firms in competitive markets
 is to maximize their shareholders' wealth. A cost of capital based on a
- 22 market value capital structure is consistent with this goal.
- 23 Q. What capital structure do you recommend?
- A. I recommend a market value capital structure of 71% equity and 29% debt based on the market value capital structures for the three Regional Bell

Operating companies (RBOCs) with investment grade bond ratings - BellSouth Corporation, SBC Communications, and Verizon Communications. My calculation of this capital structure is presented on Exhibit PL-2. I used book values for short-term and long-term debt as of December 31, 2002. For equity I used market values as of February 2003. I note that market values for investment-grade debt will be close to book values. Currently, bond prices indicate that the market value for long-term debt is somewhat greater than book value.

I estimate that the market value capital structure for my proxy group of companies is 74.4% but that is based on book values for debt typically from December 2001. Therefore, I have chosen the more conservative and more current market value capital structure based on the RBOCs.

- 12 | Q. Is the use of market-value-based capital structures controversial?
 - A. Market value capital structures have not been widely employed in UNE proceedings. Though financial theory specifies market value capital structures, I believe a conservative approach is warranted since market values for equity vary considerably and can result in very high levels of equity in the capital structure. This can imply unreasonably high interest coverage ratios. Further, from the book value capital structure ratios presented on Exhibit PL-2, ILECs evidently use significant amounts of debt to finance their networks. Therefore, while I support the idea of a market value capital structure, I recommend a conservative application.
- Q. If the Commission rejects the use of a market value capital structure, do you have a recommendation?
- A. Yes. I recommend a capital structure of 60% equity and 40% debt. This would be consistent with previous Commission decisions regarding the

appropriate capital structure for UNEs.

- Q. Based upon your alternatives to Dr. Vander Weide's cost of equity and capital structure, what is your recommended cost of capital?
- A. I recommend 11.12% as the appropriate risk-adjusted cost of capital to use in pricing Verizon Florida's collocation services. As presented on Exhibit PL-3, this cost of capital is based on a cost of equity of 12.64%, Dr. Vander Weide's recommended 7.40% cost rate for debt, and a market-value-based capital structure consisting of 71% equity and 29% debt. I believe this cost of capital reflects the risks associated with a competitive market.
- 10 0. What are your comments on Dr. Vander Weide's required risk premium?
 - A. Dr. Vander Weide asserts that Verizon Florida incurs risk because ALECs can cancel their collocation leases on a monthly basis. He notes that an operating lease is more risky than a financial lease. He employs a binomial option pricing model and the different required returns for financial and operating leases to estimate a 5.92% required risk premium. He notes that Verizon Florida's weighted average cost of capital is 12.45% without considering what he states are the unique risks of the TELRIC regulatory and operating environment. He adds the 5.92% risk premium to his estimate of Verizon Florida's weighted average cost of capital of 12.45% to arrive at his recommended cost of capital of 18.36% for TELRIC collocation cost studies in Florida. I believe this risk premium is unnecessary.
- 22 Q. What is the basis for the risk premium recommended by Dr. Vander Weide?
- A. Dr. Vander Weide notes throughout his testimony that collocation leases are not long term and can be cancelled on a monthly basis. This could leave Verizon Florida with investment in facilities to provide collocation that

might be underutilized since the cost of those facilities is a sunk cost. Verizon Florida might not be able to recover such cost.

Dr. Vander Weide notes that the risk of investing in collocation facilities is greater than the risk of investing in the average competitive company because of the TELRIC pricing methodology. He contends on page 34 of his testimony that TELRIC rates are re-set every few years to reflect supposedly lower costs and that TELRIC rates are affected by new technologies.

- Is the provision of collocation services affected by new technologies? Q.
- According to Verizon Florida witness Barbara Ellis: Α.

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. . the provisioning of collocation services is labor and materials (and not technology) intensive. Thus. technological advances are not likely to lead to "future efficiency gains" in the provisioning of collocation services. (See page 16 of the Direct Testimony of Barbara Ellis.)

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In addition, Verizon Florida's cost study assumes that collocation will be requested in central offices that exist today in Florida. It apparently is not based on the ". . . unrealistic assumption that the telecommunications network can be reconstructed each time a new technology appears and companies incur no costs in transitioning to new technologies . . . " (See page 34 of Dr. Vander Weide's direct testimony.).

I conclude from the above that the effect of new technology on collocation is not great. Also, the risk of "rapidly changing technology," 25 | mentioned by Dr. Vander Weide on pages 49 and 50 of his testimony, is minimal

for collocation.

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- Regarding collocation, are forward-looking costs lower than historical 2 0. 3 costs?
- To the extent buildings are involved, the cost of 4 Α. In general, no. 5 buildings is rising. For its forward-looking cost study, Verizon Florida 6 updated its historical building costs to current dollars by adjusting for In addition, labor costs are an important part of collocation 7 8 costs and labor rates generally increase into the future.
- What do you conclude regarding Dr. Vander Weide's arguments that the 0. risks of investing in collocation facilities under the TELRIC standard is greater than the risk of investing in the average competitive company? 11
- 12 Regarding collocation, I disagree with those arguments. Technology is Α. 13 not a dominant factor affecting the provision of collocation services. addition, significant costs associated with collocation are not declining and 14 15 there is no trend in Florida of collocation rates being re-set to reflect lower costs. 16
 - Regarding building space for collocation, are ILECs exposed to more risk than companies in competitive markets?
 - No. According to Rule 51.321 (e) and (f), CFR, an incumbent LEC is not required to provide physical collocation if it demonstrates that the physical collocation is not practical because of space limitations. Since it is not required to construct additional building space solely to provide collocation space, it is in the same position as companies in competitive markets, which have a choice about adding building space to meet additional demand.
- 25 Moreover, while Verizon Florida has moved building modification costs.

- to monthly recurring charges. it still recovers some of its collocation 1 2 investment through up-front non-recurring charges. This can reduce the investment at risk. In contrast, companies in competitive markets typically 3 4 absorb all the set-up costs to serve customers and attempt to recover these 5 costs through future sales.
- What is your conclusion regarding Dr. Vander Weide's recommended 6 0. 7 required risk premium?
 - I believe it is unnecessary. The risk of an ALEC customer cancelling its monthly lease is comparable to the risk of a customer not buying a product or service. That risk is faced by companies in competitive markets. Such companies face significant risks of underutilized investment and the inability to recover sunk costs. I believe a cost of capital that reflects the risks associated with companies in competitive markets encompasses this risk and is the appropriate cost of capital for pricing collocation services.

In addition, allowing a cost of capital that reflects the risks associated with a competitive market is consistent with the intent of TELRIC pricing, which is to simulate a competitive market for UNEs.

0. Please summarize your testimony.

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I disagree with Verizon Florida witness Dr. Vander Weide on cost of equity, capital structure and his recommended required risk premium. provide alternatives to his cost of equity and capital structure and I conclude that 11.12% is the appropriate cost of capital for pricing collocations services. I note that this cost of capital reflects the risks associated with a competitive market. I believe Dr. Vander Weide's risk 25 premium of 5.92% is unnecessary.

1	Q.	Does	this	conclude	your	testimony?
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1	CHAIRMAN BAEZ: That does it for the stipulated				
2	witnesses, Mr. Teitzman?				
3	MR. TEITZMAN: Yes, Chairman.				
4	CHAIRMAN BAEZ: Okay. Now, we're ready to take up				
5	witnesses.				
6	(Witnesses collectively sworn.)				
7	CHAIRMAN BAEZ: Thank you.				
8	Ms. White, you can call your witness.				
9	MS. WHITE: Yes. BellSouth would call Bernard Shell.				
10	And, Chairman, I will be putting Mr. Shell up, but if there are				
11	any objections that need to be made with regard to the issue				
12	that was the subject of an earlier BellSouth motion,				
13	Mr. Carver				
14	CHAIRMAN BAEZ: It's on Mr. Carver.				
15	MS. WHITE: Mr. Carver will be doing that, just to				
16	let the parties and Commission know.				
17	CHAIRMAN BAEZ: Any objections, Mr. Watkins?				
18	Mr. Carver is going to handle any objections that				
19	MR. WATKINS: I'm happy to have Mr. Carver here.				
20	CHAIRMAN BAEZ: Take your shot. You get your pick of				
21	any BellSouth attorney, I guess.				
22	W. BERNARD SHELL				
23	was called as a witness on behalf of BellSouth				
24	Telecommunications, Inc., and, having been duly sworn,				
25	testified as follows:				

228 DIRECT EXAMINATION 1 2 BY MS. WHITE: 3 Mr. Shell, would you please state your name and Q 4 address for the record. 5 Yes. My name is William Bernard Shell, and my 6 address is 675 West Peachtree Street, Atlanta, Georgia. 7 By whom are you employed and in what capacity? Q 8 I'm employed by BellSouth Telecommunications as a Α 9 manager in the finance department. 10 Have you caused to be prefiled in this case direct Q testimony consisting of 12 pages? 11 12 Α Yes. 13 Do you have any changes or corrections to that Q testimony? 14 15 Α No. I do not. 16 If I were to ask you the same questions that were 0 17 contained in your direct testimony today, would your answers be 18 the same? 19 Α Yes. MS. WHITE: I would ask that the direct testimony of 20 21 Mr. Shell that was filed on February 4, 2003 be entered into 22 the record as though read.

CHAIRMAN BAEZ: Without objection, show the direct testimony of W. Bernard Shell entered into the record as though read.

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1	BY MS	S. WH	ITE:
2		Q	Mr. Shell, did you have three exhibits attached to
3	your	dire	ct testimony?
4		Α	That is correct.
5		Q	And those exhibits are labeled WBS-1, WBS-2, and
6	WBS-3	3?	
7		Α	Yes.
8		Q	And is it correct that WBS-1 is a confidential
9	exhib	oit?	
LO		Α	That's correct.
L1		Q	And WBS-2 and 3 are not confidential?
L2		Α	That's correct.
L3		Q	Do you have any changes to those exhibits?
L4		Α	No, I do not.
L5			MS. WHITE: I would ask that the three exhibits
16	attad	ched	to Mr. Shell's direct testimony be marked as exhibits
L7	I dor	n't k	now whether you want to do the one that's proprietary
18	as a	sepa	rate one.
19			CHAIRMAN BAEZ: I think we're going to peel off
20	WBS-1	L. Y	ou said that is a confidential exhibit
21			MS. WHITE: Yes, sir.
22			CHAIRMAN BAEZ: and we'll give it Confidential
23	Exhil	oit N	umber 34. And WBS-2 and 3 will be given Composite
24	Exhib	oit N	umber 35.

Thank you.

MS. WHITE:

1	(Exhibits 34 and 35 marked for identification.)
2	BY MS. WHITE:
3	Q Did you also file surrebuttal testimony in this case
4	on September 26, 2003 consisting of 53 pages?
5	A Yes, I did.
6	Q Do you have any changes or corrections to that
7	surrebuttal testimony?
8	A Yes, I do have a couple. On Page 46, Line 14, I need
9	to exchange the name "Turner" for "Gabel." It should read,
10	"Additionally, on Page 20, Mr. Gabel."
11	COMMISSIONER JABER: Mr. Chairman, I'm sorry to
12	interrupt. I need the witness to speak into the microphone.
13	CHAIRMAN BAEZ: Mr. Shell, remember that we have a
14	Commissioner on the phone. Is your microphone on?
15	THE WITNESS: Testing. Yes.
16	CHAIRMAN BAEZ: Okay. You're going to have to speak
17	a little closer. And if you could repeat that change, please.
18	THE WITNESS: Okay. On Page 46, Line 14, I'm
19	changing the name "Turner" to "Gabel." It should read,
20	"Additionally, on Page 20, Mr. Gabel" instead of "Mr. Turner."
21	CHAIRMAN BAEZ: Thank you, Mr. Shell.
22	THE WITNESS: The second change is on Page 50,
23	Line 5, removing one of the "that's." I have two "that's" in
24	the sentence.
25	CHAIRMAN BAF7. Can you repeat that again please

231 Mr. Shell? I'm sorry. 1 2 THE WITNESS: Okay. Page 50, Line 5, the sentence 3 has two that's. It reads, "Mr. Turner is also confused in that 4 that," and I'm just taking one of the "that's" to make it 5 correct. Removing that word. 6 CHAIRMAN BAEZ: Okay. 7 THE WITNESS: Those are my only changes. 8 MS. WHITE: Thank you. I would ask that the 9 surrebuttal testimony of Mr. Shell filed on September 26, 2003 10 be entered into the record. CHAIRMAN BAEZ: Show the surrebuttal testimony of 11 Mr. Shell as modified be entered into the record as though 12 13 read. BY MS. WHITE: 14 15

Q And, Mr. Shell, did you have five exhibits attached to your surrebuttal testimony -- I'm sorry, four exhibits attached to your surrebuttal testimony?

A Yes, four exhibits.

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Q And do those exhibits consist of a revised WBS-1, a revised WBS-2, and then WBS-4 and WBS-5?

A That's correct.

Q Do you have any changes to those exhibits?

A No, I do not.

MS. WHITE: Chairman Baez, again, WBS-1, the revised WBS-1 is proprietary, confidential. The other three are not.

1	so you might want to separate that one out.
2	CHAIRMAN BAEZ: We will take WBS-1 revised
3	surrebuttal exhibit and mark it as Confidential Exhibit Number
4	36.
5	(Exhibit 36 marked for identification.)
6	CHAIRMAN BAEZ: And 2, 3, and 4 you said?
7	MS. WHITE: It would be 2, 4, and 5.
8	CHAIRMAN BAEZ: 2, 4, and 5. I'm sorry. WBS-2, 4
9	and 5 revised will be marked as Composite Exhibit Number 37.
10	MS. WHITE: And I'm sorry, Chairman. Just to make
11	sure, it's revised Number 2, but 4 and 5 are not revised.
12	CHAIRMAN BAEZ: Oh, I'm sorry. Revised WBS-2 and
13	WBS-4 and 5 will be marked as composite Exhibit Number 37.
14	MS. WHITE: Thank you, Chairman.
15	(Exhibit 37 marked for identification.)
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1	BELLSOUTH TELECOMMUNICATIONS, INC.
2	DIRECT TESTIMONY OF W. BERNARD SHELL
3	BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4	DOCKET NOS. 981834-TP AND 990321-TP
5	FEBRUARY 4, 2003
6	
7	Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.
8	
9	A. My name is W. Bernard Shell. My business address is 675 W. Peachtree St., N.E.,
10	Atlanta, Georgia. I am a Manager in the Finance Department of BellSouth
11	Telecommunications, Inc. (hereinafter referred to as "BellSouth"). My area of
12	responsibility is the development of economic costs.
13	
14	Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL
15	BACKGROUND AND WORK EXPERIENCE.
16	
17	A. I attended Clemson University, graduating with a Bachelor of Science Degree in
18	Electrical Engineering in 1981. I received a Masters Degree in Business
19	Administration from Georgia State University in 1997.
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21	My career with BellSouth spans over twenty years. My initial employment was
22	with Southern Bell in 1981, in Columbia, South Carolina in the Network
23	Department as an Equipment Engineer. In that capacity, I was responsible for the
24	ordering and installation of central office equipment. In 1984, I transferred to the
25	Rates and Tariffs group in Atlanta, Georgia where I was either directly or

1		indirectly responsible for the rates, costs, tariffs, and implementation of services.
2		During my time in that organization, I worked with many services/offerings, such
3		as Local Exchange Service, Service Order Charges, Operator Services, Mobile
4		Interconnection and Inside Wire. I moved to the Interconnection Marketing Unit in
5		1995, where I had various responsibilities, including negotiating with Alternative
6		Local Exchange Carriers ("ALECs"), developing pricing strategies, and product
7		managing Collocation. In December 2000, I moved to a position in the cost
8		organization, a part of the Finance Department. My current responsibilities
9		include cost methodology development and implementation.
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11	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
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13	A.	The purpose of my testimony is to present and support the cost studies filed in this
14		proceeding. In doing so, I will describe the methodology BellSouth utilized in
15		developing the costs and respond to issues 9A, 9B, and 10.
16		
17	Iss	ue 9A: For which collocation elements should rates be set for each ILEC?
18		
19	Q.	WHAT ARE THE COLLOCATION ELEMENTS FOR WHICH
20		BELLSOUTH IS PROVIDING A COST STUDY TO SUPPORT ITS
21		PROPOSED RATES?
22		
23	A.	The list of the collocation elements for which cost support is being provided by
24		BellSouth can be found in the following exhibits:
25		

2	• Exhibit WBS-2, which is a summary of the cost for each element,
3	• Exhibit WBS-3, which is a description of each element.
4	
5	BellSouth is proposing that the rates be set equal to the costs. While BellSouth has
6	included in these exhibits certain elements and corresponding rates, BellSouth
7	does not agree that these elements should be required. Specifically, these elements
8	are: H.1.56, H.1.57, H.1.58, H.1.63, H.1.64, and H.1.71. These elements are used
9	with either copper entrance cables or DC power per used amp. As stated in the
10	testimony of BellSouth's witness Mr. Milner, BellSouth does not believe that
11	ILECs should be required to provide copper entrance facilities or to provide DC
12	power on a per used amp basis. The costs for these elements are being provided
13	for the sole purpose of providing the Commission with complete information in
14	order to make a final decision regarding the elements.
15	
16	Q. WHAT TYPES OF COLLOCATION WERE STUDIED?
17	
18	A. The collocation elements studied can be grouped into four types:
19	
20	 Physical collocation,
21	■ Virtual collocation,
22	Adjacent collocation, and
23	Remote Terminal collocation.
24	
25	In addition, Assembly Point, which is considered an alternative to collocation, will

• Exhibit WBS-1, which is the cost study,

2		paper form and on CD-ROM, and Exhibit WBS-2 provides a summary of the costs
3		for the collocation elements and Assembly Point.
4		
5	Q.	PLEASE DEFINE PHYSICAL COLLOCATION.
6		
7	A.	Physical collocation is an arrangement for the placement of ALEC/collocator-
8		owned facilities and equipment in BellSouth central offices. Such equipment must
9		be necessary for interconnection to BellSouth's network and/or to unbundled
10		network elements for the provision of telecommunications services. Equipment
11		ownership, maintenance and insurance are the responsibility of the collocator. In a
12		physical collocation arrangement, the ALEC's equipment is located in a defined
13		area of the central office.
14		
15	Q.	WHAT ARE THE COST ELEMENTS FOR PHYSICAL COLLOCATION?
16		
17	A.	The cost elements for physical collocation are shown under H.1 on Exhibits WBS-
18		2 and WBS-3. Additionally, collocation cable records elements, shown under H.7
19		on the same exhibits, apply for physical collocation.
20		
21	Q.	PLEASE DEFINE VIRTUAL COLLOCATION.
22		
23	A.	In physical collocation, the ALEC/collocator owns the equipment and has the
24		responsibility to maintain and repair the equipment. In contrast, with virtual,
25		BellSouth will lease the collocator's equipment for the nominal fee of one dollar

be addressed. As stated above, Exhibit WBS-1 provides the cost study, in both

1	and will perform all maintenance and repair on the equipment on	e the collocator
2	requests such work. A maintenance charge will apply for the mai	ntenance and
3	repair work. In this arrangement, the equipment is commonly loc	ated in the
4	BellSouth equipment line-up.	
5		
6	Q. HOW DO THE VIRTUAL COLLOCATION COST ELEME	NTS DIFFER
7	FROM THE PHYSICAL COLLOCATION COST ELEMEN	TS?
8		
9	A. Virtual collocation has fewer cost elements than physical collocat	ion. For
10	example, the security access system and space preparation elemer	its would not
11	apply in a virtual collocation arrangement. However, all of the vi	rtual collocation
12	cost elements are also physical collocation cost elements, with the	exception of the
13	Maintenance cost elements (H.2.20 - H.2.22). The Maintenance	cost elements are
14	unique to virtual collocation and recover the cost associated with	maintaining the
15	ALEC's collocated equipment. The cost elements for virtual colle	ocation are
16	shown under H.2 on Exhibits WBS-2 and WBS-3. Additionally,	collocation cable
17	records elements, shown under H.7 on the same exhibits, apply fo	r virtual
18	collocation.	
19		
20	Q. PLEASE DESCRIBE BELLSOUTH'S ADJACENT COLLO	CATION
21	OFFERING.	
22		
23	A. BellSouth will permit an adjacent collocation arrangement ("Adja	cent
24	Arrangement") on BellSouth property on which a central office is	located, where
25	physical collocation space within the central office is legitimately	exhausted,

1	subject to technical feasibility, where the Adjacent Arrangement does not interfer
2	with access to existing or planned structures or facilities on the property, and
3	where permitted by zoning and other applicable state and local regulations. The
4	Adjacent Arrangement shall be constructed or procured by the ALEC and in
5	conformance with BellSouth's design and construction specifications.
6	
7	Q. WHAT ARE THE COST ELEMENTS FOR ADJACENT COLLOCATION
8	
9	A. The cost elements for adjacent collocation are shown under H.4 on Exhibits WBS
10	2 and Exhibit WBS-3. Additionally, collocation cable records elements, shown
11	under H.7 on the same exhibits, apply for adjacent collocation.
12	
13	Q. PLEASE DESCRIBE BELLSOUTH'S REMOTE TERMINAL
14	COLLOCATION OFFERING.
15	
16	A. BellSouth offers Remote Terminal collocation to ALECs on rates, terms and
17	conditions that are just, reasonable, non-discriminatory and consistent with the
18	rules of the Federal Communications Commission ("FCC"). BellSouth allows an
19	ALEC to occupy certain areas designated by BellSouth within a remote site
20	location of a size which is specified by the ALEC and agreed to by BellSouth. The
21	remote site locations include cabinets, huts, and controlled environmental vaults
22	owned or leased by BellSouth that house BellSouth Network Facilities.
23	
24	Q. WHAT ARE THE COST ELEMENTS FOR REMOTE TERMINAL
25	COLLOCATION?

2		Exhibits WBS-2 and WBS-3. ALECs have also expressed an interest in obtaining
3		a virtual collocation arrangement in remote terminals. This filing reflects the
4		elements and costs associated with such an arrangement. They are the same as the
5		physical collocation in a remote terminal and are shown under H.8 on Exhibits
6		WBS-2 and WBS-3.
7		
8	Q.	EARLIER, YOU STATED THAT THE ASSEMBLY POINT OFFERING
9		WOULD BE ADDRESSED. PLEASE DESCRIBE BELLSOUTH'S
10		ASSEMBLY POINT OFFERING.
11		
12	A.	BellSouth provides Assembly Point in addition to collocation. The Assembly
13		Point product is offered for three service types on a per cross-connect basis: 1) 2-
14		wire, 2) 4-wire, and 3) DS1. Assembly Point allows ALECs to combine two
15		network elements at a cross-connect point designated by BellSouth. BellSouth
16		will supply all equipment required to access the UNEs. The ALEC must supply
17		the jumpers to connect two elements at the Assembly Point location. The ALEC
18		may not install any equipment within the Assembly Point area.
19		
20	Q.	WHAT ARE THE COST ELEMENTS FOR ASSEMBLY POINT?
21		
22	A.	Assembly Point is provided as assembly point cross connects and has an associated
23		nonrecurring charge and monthly charge (H.3 on Exhibits WBS-2 and WBS-3).
24		Assembly Point has the following cost elements:
25		■ <u>2 – Wire Cross-Connects:</u> this cost element recovers the cost to run 2 – wire

A. The cost elements for remote terminal collocation are shown under H.6 on

- cross-connects from a distribution frame to an assembly point frame. A crossconnect is required for each UNE in the combination established.

 4 Wire Cross-Connects: this cost element recovers the cost to run 4 wire
- cross-connects from a distribution frame to an assembly point frame. A cross-connect is required for each UNE in the combination established.
 - <u>DS1 Cross-Connects</u>: this cost element recovers the cost to run DS1 cross-connects from a DSX panel to an assembly point frame. A cross-connect is required for each UNE in the combination established.

Q. WHY HAS BELLSOUTH CHOSEN TO FILE COST SUPPORT FOR THE ELEMENTS SHOWN IN ITS COST STUDY AND ON EXHIBITS WBS-2 AND WBS-3?

A. The elements listed on Exhibits WBS-2 and WBS-3 are the elements that BellSouth needs to provision the various types of collocation pursuant to FCC orders and based on customer requests. For example, the FCC requires that ILECs provide physical collocation not just for caged, but also for cageless and shared arrangements (paragraphs 40 and 41 of the Advanced Services Order in CC Docket No. 98-147). The FCC also requires that ILECs permit adjacent collocation and remote terminal collocation (paragraph 44 of the Advanced Services Order in CC Docket No. 98-147 and paragraph 221 of the Unbundled Network Element Remand Order in CC Docket No. 96-98). Additionally, ALECs have requested a unique application fee just for power reduction (H.1.60) and remote site data that can be used to develop an appropriate business plan (H.9.1). Again, as stated previously, while disagreeing that the elements should be required, BellSouth has

1	also provided cost support for elements used with copper entrance facilities and
2	DC power on a per <u>used</u> amp basis solely for this Commission's review and
3	analysis.
4	
5	BellSouth has filed cost support for collocation elements to allow for the recovery
6	of its reasonable cost while providing the required collocation offerings and the
7	collocation offerings requested by ALECs.
8	
9	Issue 9B: For those collocation elements for which rates should be set, what is
10	the proper rate and the appropriate application of those rates?
11	
12	Q. WHAT SHOULD DETERMINE WHETHER THE PROPOSED RATES
13	ARE PROPER?
14	
15	A. The proposed rates should be proper if they are based on a forward-looking cost
16	study that adheres to the Total Element Long Run Incremental Cost ("TELRIC")
17	pricing rules and uses the cost study methodology previously approved by this
18	Commission.
19	
20	Q. WHAT COST METHODOLOGY DID BELLSOUTH USE TO
21	DETERMINE THE COSTS FOR THE ELEMENTS CONTAINED IN THIS
22	FILING?
23	
24	A. BellSouth used the same cost methodology previously approved by this
25	Commission in its Orders in Docket No. 990649-TP (Order No. PSC-01-1181-

1		FOF-TP, dated May 25, 2001 and Order No. PSC-01-2051-FOF-TP, dated October
2		18, 2001). Additionally, BellSouth has made all applicable ordered adjustments in
3		that docket. For example, BellSouth is using the ordered cost of capital,
4		depreciation rates, and income tax factor. However, since this is a new proceeding
5		and the study period is 2003 - 2005, other factors and loadings have been updated
6		to reflect the latest available inputs.
7		
8	Q.	DO BELLSOUTH'S COST STUDIES FOR THE COLLOCATION
9		ELEMENTS AND ASSEMBLY POINT ADHERE TO THE TELRIC
LO		PRICING RULE?
11		
L2	A.	Yes, BellSouth's cost studies do adhere to the TELRIC pricing rules. They reflect
13		only forward-looking economic costs. BellSouth's collocation and Assembly
L 4		Point rates, which are based on the costs BellSouth will incur, are just, reasonable,
L5		and nondiscriminatory.
L 6		
L7	Q.	WHAT ARE THE PROPER RATES AND APPROPRIATE APPLICATION
18		OF THOSE RATES?
.9		

1	A. The proper rates are the rates based on BellSouth's cost study. The cost study
2	adheres to TELRIC pricing rules and is compliant with the cost study methodology
3	approved by this Commission. The rates should be applied as addressed in the
4	testimonies of BellSouth witnesses Mr. Wayne Gray (Issue 1) and Mr. Keith
5	Milner (Issues 4 and 6).
6	
7	Regarding issue 1, Mr. Gray explains when recurring charges and nonrecurring
8	charges should be billed. Regarding issues 4 and 6, Mr. Milner explains why
9	BellSouth should <u>not</u> be required to provide copper entrance facilities within the
10	context of a collocation arrangement inside the central office and that the per amp
11	rate for DC power should apply on fused capacity.
12	
13	Issue 10: What are the appropriate definitions, and associated terms and
14	conditions for the collocation elements to be determined by the Commission?
15	
16	Q. WHAT ARE THE APPROPRIATE DEFINITIONS FOR THE ELEMENTS
17	FOR WHICH BELLSOUTH HAS PROVIDED COST SUPPORT?
18	
19	A. The appropriate definitions for the elements for which BellSouth has provided cost
20	support are the definitions provided in the Narrative Section of the cost study
21	(Exhibit WBS-1) and in Exhibit WBS-3. The file location for the Narrative
22	Section of the cost study on the CD is: E:\Documentation\1 Narratives and Study
23	Descriptions\FLCOLLnar.doc (Section 5). The cost study also provides additional
24	descriptive and supportive information on the various collocation elements.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2

3 A. Yes.

1		BELLSOUTH TELECOMMUNICATIONS, INC.
2		SURREBUTTAL TESTIMONY OF W. BERNARD SHELL
3		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4		DOCKET NOS. 981834-TP AND 990321-TP
5		SEPTEMBER 26, 2003
6		141
7	Q.	PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.
8		
9	A.	My name is W. Bernard Shell. My business address is 675 W. Peachtree St., N.E.,
10		Atlanta, Georgia. I am a Manager in the Finance Department of BellSouth
11		Telecommunications, Inc. (hereinafter referred to as "BellSouth"). My area of
12		responsibility is economic costs.
13		
14	Q.	ARE YOU THE SAME W. BERNARD SHELL THAT FILED DIRECT
15		TESTIMONY IN THIS DOCKET?
16		
17	A.	Yes. I filed direct testimony on February 4, 2003.
18		
19	Q.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
20		
21	A.	The purpose of my testimony is to respond to the testimony of Mr. Steven Turner,
22		representing AT&T Communications of the Southern States, L.L.C. ("AT&T") and
23		the testimonies of Mr. Rowland Curry and Mr. David Gabel representing the Florida
24		Commission Staff. My testimony will address certain statements made regarding
25		collocation costs. Additionally, in preparing my responses and re-looking at the cost

1		studies, I discovered a need to correct one of the cost elements (Element H.1.37,
2		Security Access System per square foot).
3		
4	Q.	PLEASE BRIEFLY DESCRIBE THE CORRECTION TO ELEMENT H.1.37
5		AND ITS IMPACT.
6		
7	A.	This element develops the recurring cost per square foot to place security access
8		system card readers in central offices. To develop this cost per square foot,
9		BellSouth divides the total cost by the state-specific average square footage of the
10		central offices. BellSouth used Georgia's average square footage instead of Florida's
11		by mistake. The correction uses Florida's number as intended. The net effect of this
12		change is that the proposed cost goes from \$.0125 per square foot to \$.0101 per
13		square foot. Attached are revised Exhibit WBS-1 (the complete cost study on CD-
14		ROM and the revised pages to the paper portion) and revised Exhibit WBS-2 (cost
15		summary) containing the corrected number.
16		
17	Q.	BEFORE YOU SPECIFICALLY ADDRESS THE BELLSOUTH'S
18		COLLOCATION COST STUDIES, CAN YOU ADDRESS MR. TURNER'S
19		STATEMENTS REGARDING A SINGLE COST MODEL AND
20		CONSISTENCY ACROSS COST DEVELOPMENT AMONG INCUMBENT
21		LOCAL EXCHANGE COMPANIES ("ILECS").
22		
23	A.	Yes, while BellSouth agrees with Mr. Turner that its model, the BellSouth Cost
24		Calculator [©] , is a wonderful model, BellSouth does not support the use of a single
25		
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		-2-

1	model for all ILECs for reasons explained below. Moreover, given that each ILEC
2	has its own operational procedures for provisioning collocation and its own network
3	infrastructure and planning guidelines, cost development by the various ILECs is not
4	exactly the same.
5	•
6	Q. MR. TURNER CLAIMS THAT THE "DISPARATE COSTS AND RATES FOR
7	COLLOCATION INDICATES THAT THE RESULTS ARE INACCURATE
8	AND INCONSISTENT WITH COST-BASED TELRIC PRINCIPLES." (PAGE
9	3, LINES 15-17) IS HE CORRECT?
10	
11	A. No. The foundation of Mr. Turner's contention is that "the underlying investments
12	should be similar" among the three companies providing collocation in Florida. (Page
13	3, line 15) This assumption is false and, therefore, so is his conclusion. The
14	-companies have unique rate structures that dictate the network components that need
15	to be considered in the development of the investments and thus, what is reflected in
16	the cost-based rates. The FCC's TELRIC principles do not mandate that the rate
17	structures utilized by the incumbents must be identical. Thus, there is no merit in Mr.
18	Turner's supposition that varying cost results mean that the cost studies do not adhere
19	to the TELRIC guidelines.
20	
21	Additionally, contrary to Mr. Turner's allegation, the companies have unique
22	purchasing agreements for the network components, land, and buildings required for
23	collocation. This Commission has recognized in its UNE orders that it is proper to
24	accurately portray the company-specific inputs. For example, in its May 25, 2001
25	Order in Docket No. 990649-TP, the Commission ruled that "inputs adopted for use

1		in determining UNE prices shall be BellSouth specific." (Page 188, Order No. PSC-
2		01-1181-FOF-TP) Nothing proffered by Mr. Turner should alter the Commission's
3		ruling with respect to collocation. In fact, acceptance of Mr. Turner's erroneous claim
4		of a common set of investments would violate previous Commission's rulings that
5		company-specific input is appropriate.
6		
7	Q.	MR. TURNER ALSO CONTENDS THAT "A SINGLE COLLOCATION
8		COST MODEL CAN READILY BE USED FOR ALL THREE INCUMBENTS
9		IN FLORIDA." (PAGE 7, LINES 17-18) PLEASE COMMENT.
10		
11	A.	Mr. Turner's simplistic assertion is not realistic. He requests that this Commission
12		adopt the BellSouth Cost Calculator® for use in determining collocation costs. While
13		the model may be "readily" available for BellSouth, the same conclusion cannot be
14		made for Sprint and Verizon.
15		
16		First, the model is the intellectual property of BellSouth. Therefore, BellSouth is
17		entitled to compensation on the use of its intellectual property as well as the time
18		required to train others on the use of it. This compensation would be in the form of a
19		licensing fee. BellSouth believes that it deserves to be paid for the effort required to
20		develop and maintain the model. Under no circumstances should the Commission
21		require BellSouth to turn over its model without compensation. On the other hand,
22		use of BellSouth's model by the other ILECs, with compensation, would raise the
23		costs to them. Thus, AT&T's proposal would necessarily leave an adverse, and
24		unfair, impact either on BellSouth (if its intellectual property is taken without
25		

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1 compensation) or on other ILECs (in the form of increased costs). 2 3 Second, existing Sprint/Verizon data feeds would likely need to be altered or scrapped 4 entirely to generate the inputs required by the adopted model. Finally, the issue of 5 model administration and maintenance would need to be resolved. The question of 6 who has ultimate control over the algorithms and methodology inherent in the model 7 would need to be answered. BellSouth would require that prior to any model 8 modification, notification and approval be obtained. 9 While BellSouth would not have to expend the time required to develop new inputs, 10 11 pay the potential on-going expense, and maintain the support of a Florida-specific 12 model as would Sprint and Verizon, BellSouth does not support the use of a standardized model. As stated above, BellSouth would need to spend time training 13 14 the other ILECs and maintaining the model for use by all ILECs. This position was 15 articulated in BellSouth's response to the Commission's request on this subject. 16 (February 28, 2003 letter to Patricia A. Christensen Re: UNE Costing Workshop 17 Comments) 18 19 What Mr. Turner does not appear to realize is that the model used to complete a cost study is not considered a cost driver. Cost drivers are things that impact cost studies, 20 such as the assumptions used and input data associated with the cost elements. The 21 22 cost model is just a tool that accepts inputs, makes the appropriate calculations, and 23 produces the outputs. Such things as a company's network plans, budget, and operations procedures drive the assumptions and input data. Additionally, the cost 24 model does not determine the cost elements or the rate structure used. Simply put, 25

2	and more costs with no real effect on the resulting cost numbers.
3	
4	Q. PLEASE LIST THE AREAS OF THE COLLOCATION COST STUDIES
5	THAT WILL BE ADDRESSED.
6	
7	A. The cost-related areas discussed in my testimony are as follows:
8	• DC power
9	 Nonrecurring elements associated with planning, engineering, installation times,
10	space availability report, and cable records
11	• Floor space
12	Space Preparation
13	Cage construction
14	Cable rack capacity
15	Fill factors
16	
7	Q. HOW IS DC POWER ADDRESSED IN BELLSOUTH'S COLLOCATION
8	COST STUDY?
9	
20	A. BellSouth makes DC power available for an Competitive Local Exchange Carrier's
21	("CLEC's") physical collocation space at a BellSouth Power Board or a BellSouth
22	Battery Distribution Fuse Bay ("BDFB"), at the CLEC's option, within the premises.
23	The CLEC's certified vendor must engineer and install fuses and power cables from
24	the collocation space to the BDFB. The CLEC's certified engineer must also engineer
25	and install power cables from the collocation space to the Power Board, if this option

Mr. Turner's proposal for a single model would cause the ILECs to spend more time

1 is chosen. Recurring charges for DC power will be assessed per ampere per month 2 based upon the BellSouth Certified Supplier engineered and installed power feed fused ampere capacity. Therefore, BellSouth developed the recurring costs for power 3 based on the assumption that the charge would be per-fused amp, as opposed to per-4 5 used amps. "Fused" refers to the protection device rating. Protection devices are 6 fuses or circuit breakers. 7 Q. ON PAGE 19 AND 20 OF HIS TESTIMONY, MR. TURNER ASSERTS THAT 8 9 POWER AUGMENTS ARE NOT PRICED ON THE SAME BASIS AS A COMPREHENSIVE POWER PLANT. PLEASE RESPOND. 10 11 12 A. Mr. Turner is incorrect in his assertion that the power augment jobs for collocation are priced differently than a total power plant job would be priced. He states on the 13 top of page 20 that "[a]ugments, by nature, do not provide the scale economies in the 14 derivation of the DC power investment that BellSouth benefits from based on its 15 installation of a comprehensive DC power plant." However, BellSouth's cost study is 16 based on BellSouth operating under a standard regional contract with its vendor for 17 the DC power plant components, regardless of the size of the power job. The same 18 vendor that installs BellSouth's day-to-day power equipment to serve its end users 19 also installs BellSouth's power equipment to serve the CLECs desiring to collocate in 20 the central office. Regardless of the size of the central office or the size of the power 21 needs, the same price that applies for a comprehensive DC power plant also applies 22

for a smaller augment. BellSouth's cost studies used data from actual collocation

projects throughout the region to determine the expected regional forward-looking

investment per DC amp. Data was taken from 711 projects. Costs that would not

23

24

1		apply on a forward-looking basis, such as power cabling, were backed out. An
2		average of all the data was taken to produce the forward-looking investment per amp
3		Again, the standard regional contract pricing would apply on the augments.
4		
5	Q.	PLEASE REPOND TO MR. TURNER'S STATEMENT (PAGE 20, LINES 20
6		AND 21) THAT USING AUGMENTS "CONTRADICTS THE
7		REQUIREMENTS OF A TELRIC COST STUDY."
8		
9	A.	The FCC has specifically allowed incumbent local exchange carriers to recover the
10		cost of central office modifications, including power upgrades/augments, required to
11		meet a collocator's needs. In its Advanced Services Order (Order FCC 99-48),
12		paragraph 51 states:
13		
14		We conclude, based on the record, that incumbent LECs must allocate
15		space preparation, security measures, and other collocation charges on a
16		pro-rated basis so the first collocator in a particular incumbent premises
17		will not be responsible for the entire cost of site preparation. For example,
18		if an incumbent LEC implements cageless collocation arrangements in a
19		particular central office that requires air conditioning and power upgrades,
20		the incumbent may not require the first collocating party to pay the entire
21		cost of site preparation.
22		
23		This language clearly allows ILECs such as BellSouth to recover the costs of
24		preparing collocation space including power upgrades (augments). Since the FCC
25		actablished the TELPIC principles, it presumably would not have allowed the ILFCs

1	to recover site preparation cost if doing so conflicted with TELRIC principles. Site
2	preparation includes the cost of power upgrades or augments. As such, BellSouth's
3	methodology for developing the investment per DC amp is compliant with TELRIC
4	principles. It is simply a way of pro-rating the cost of collocation power requirements
5	among CLECs on a reasonable and nondiscriminatory basis.
6	1 4 1 1
7	Additionally, Mr. Turner (page 20, lines 9 – 13) references paragraph 677 of the
8	FCC's First Report and Order (dated August 8, 1996). He is addressing Total Service
9	Long Run Incremental Cost ("TSLRIC"). However, paragraph 678 of this same order
10	states:
11	While we are adopting a version of the methodology commonly referred to
12	as TSLRIC as the basis for pricing interconnection and unbundled
13	elements, we are coining the term "total element long run incremental
14	cost" (TELRIC) to describe our version of this methodology.
15	
16	Therefore, while TSLRIC and TELRIC have similarities, the collocation studies are
17	based on TELRIC principles. As stated above, BellSouth's methodology for
18	developing the investment per DC amp is compliant with TELRIC principles.
19	
20	
21	Q. MR. CURRY, ON PAGE 8 OF HIS TESTIMONY, ALSO STATES THAT
22	BELLSOUTH HAS NOT ESTABLISHED AN APPROPRIATE TELRIC FOR
23	DC POWER AND REFERS TO THE FCC'S INTERCONNECTION PRICING
24	RULES. DO YOU AGREE WITH HIS ASSESSMENT?
25	

1 A. No. Mr. Curry references paragraph 682 from the FCC's Local Competition Order (CC Docket No. 96-98 released August 8, 1996). The reference is correct, however, 2 3 as stated above the FCC established the TELRIC principles, and it presumably would 4 not have allowed the ILECs to recover site preparation cost if doing so conflicted with 5 TELRIC principles. The FCC addressed collocation in the Local Competition Docket 6 where it established rules to implement the collocation requirements of the 1996 7 Telecommunication Act. The FCC reviewed collocation again in the Advanced 8 Services Docket (CC Docket No. 98-147, order released March 31, 1999) and 9 strengthened the collocation rules to reduce costs and delays faced by competitors that seek to collocate equipment in an incumbent LEC's central office. It is after this 10 additional review of collocation that the FCC stated that the ILECs can recover the 11 12 cost for site preparation. The only stipulation contained in the FCC order was that the total cost of site preparation would be pro-rated so that the first collocator in a 13 particular central office would not be responsible for the entire cost. Consistent with 14 this directive, BellSouth has developed a way of pro-rating the cost of collocation 15 power requirements among CLECs on a reasonable and nondiscriminatory basis. 16 This same cost methodology has been used in all BellSouth states. 17 18 Moreover, in approving BellSouth's applications for in-region interLATA authority in 19 Georgia and Louisiana on May 15, 2002 (FCC Order 02-174, ¶210 and 211), in 20 Alabama, Kentucky, Mississippi, North Carolina, and South Carolina on September 21 22 18, 2002 (FCC Order 02-260, ¶231 and appendix H, ¶21), and in Florida and Tennessee on December 19, 2002 (FCC Order 02-331, appendix D, ¶21), the FCC 23 concluded that BellSouth provides collocation based on TELRIC principles. For 24 example, in FCC Order 02-260 it states the following: 25

1	As stated above, checklist item 1 requires a BOC to provide
2	"interconnection in accordance with the requirements of a section
3	251(c)(2) and 252(d)(1). Section 252(d)(1) requires state determinations
4	regarding the rates, terms, and conditions of interconnection to be based
5	on cost and to be nondiscriminatory, and allows the rates to include a
6	reasonable profit. The Commission's pricing rules require, among other
7	things, that in order to comply with its collocation obligations, an
8	incumbent LEC provide collocation based on TELRIC. [Paragraph 21 in
9	appendix H]
10	
11	For the foregoing reasons, we reject commenters' allegations of error and
12	find that BellSouth complies with checklist item 1. [Paragraph 231]
13	
14	Q. ON PAGES 23 AND 24, MR. TURNER PRESENTS SOUTHWESTERN
15	BELL'S INVESTMENT PROPOSAL IN TEXAS AS A COMPARISON TO
16	BELLSOUTH'S POWER JOBS. HE IS USING THIS AS AN EXAMPLE OF
17	PUBLICLY AVAILABLE DATA TO CHALLENGE THE
18	REASONABLENESS OF BELLSOUTH'S INVESTMENT PER AMP DATA.
19	PLEASE PROVIDE YOUR ASSESSMENT OF THE SOUTHWESTERN
20	BELL DATA.
21	
22	A. The Southwestern Bell investment numbers for Texas are not relevant to determining
23	BellSouth's costs in Florida. These numbers are based on Southwestern Bell's
24	approach to constructing a DC power plant, its supplier costs, its assumptions on
25	quantity of items and cable distances, etc. Nonetheless, I will provide a few

1		comments on Mr. Turner's Exhibits SET-3 and SET-4.
2		• The exhibits seem to only account for one BDFB. An office equipped with a
3		2500 amp or a 4000 amp power plant would certainly have multiple BDFBs. A
4		2500 amp power plant should have 2 to 4 BDFBs and a 4000 amp power plant
5		should have at least 3 to 5 BDFBs. Thus the total cost for BDFBs should be
6		greater.
7		• The exhibits do not indicate the distance of the BDFB cable run assumed.
8		Cabling cost is sensitive to the distance of the cable run, with the cost increasing
9		exponentially with distance.
10		• From reviewing the exhibit, it is not evident if the cost of a power plant controller
11		or monitor was included. Monitors are required to control the rectifiers and to
12		report power plant alarms. Such costs should be included, which would increase
13		the total cost.
14		
15		It is unreasonable for AT&T to argue, based on cost support presented by another
16		company in another state, that BellSouth's costs in Florida are too high. The two
17		companies may have different operating procedures and different supplier costs.
18		These different procedures and supplier costs have a real impact on projected
19		investment per amp. Based on a review of the exhibits, it appears that Southwestern's
20		costs may be understated, and there is no need to rely on such data for BellSouth.
21		BellSouth's study is based on real jobs for provisioning power in its region.
22		
23	Q.	PLEASE ADDRESS MR. CURRY'S COMMENTS ON PAGES 6 AND 7 OF
24		HIS TESTIMONY REGARDING BELLSOUTH'S POWER CONTRUCTION
25		COST PER AMP FOR THE VARIOUS CENTRAL OFFICES SHOWN.

1	A.	Mr. Curry is correct that these power jobs represent power augments or upgrades due
2		to collocators' requests or projected power needs. As stated previously, the FCC
3		allows ILECs to recover the cost of power augments as part of its collocation site
4		preparation work. The key point is that each power job could trigger different power
5		equipment needs. There are different power components that may be at or near
6		exhaust in various central offices at the time a CLEC requests power. Some of these
7		components can only be purchased in "chunks" of capacity. Mr. Curry agrees on page
8		7 that "[p]ower plant investments are often characterized as 'lumpy' investments."
9		Some examples of the power capacity components are: rectifiers, battery distribution
10		fuse bays, and standby AC plants. Any combination of these items, as well as others,
11		may be exhausted by an individual power demand request. For that reason, it would
12		be misleading to analyze each individual central office project power construction
13		cost per amp. Thus, BellSouth chose to develop a regional number using 711 actual
14		projects to ensure that a sufficient number of jobs were used to develop a reliable
15		forward-looking investment per DC amp. Attached, as Exhibit WBS-4, is a copy of
16		the results of the 711 projects. While there are extreme cases at either end of the
17		distribution of projects, the average across the 711 projects accurately pro-rates the
18		real-world cost to provision an amp of power capacity based on collocators' requests
19		or projected needs. In some cases, BellSouth had to pre-provision power, earlier than
20		normal, to ensure that sufficient power capacity existed to meet the ordered
21		collocation provisioning intervals. A power job could take up to 26 weeks to
22		complete. If power capacity were not available, the provisioning interval would be
23		missed.

24

25 Q. MR. TURNER, ON PAGES 24 THROUGH 26, ALLEGES THAT

2 THE POWER INVESTMENT PER AMP. DO YOU AGREE? 3 A. No, I do not. Dividing the incremental investment in the Gainesville-Main central 5 office power plant by the total rectifier capacity (amps) added to the office, as stated 6 on page 25 of Mr. Turner's testimony, does not produce a number that represents 7 BellSouth's total forward-looking investment per amp. This is because additional 8 equipment investment is required. To produce these additional rectifier amps of 9 power would require use of other power equipment for which investments are not 10 shown in the analysis; thus, this number would understate true forward-looking 11 investment per amp. For example, there could be additional investment associated 12 with batteries, power cabling, and fuse bays. The true investment associated with providing the total capacity (amps) of the rectifiers would be greater. 13 14 15 Further, Mr. Turner is obviously targeting an extreme example of the actual power 16 projects. What he does not mention are the many cases where the data shows CLECs 17 being provided power without triggering a power project. In those cases, BellSouth 18 obviously is showing no construction costs even though power is being provided and 19 zero cost are shown in the study. Again, while there are extreme cases at either end of 20 the distribution of projects, the average across the 711 projects accurately pro-rates the real-world cost to provision an amp of power capacity. 21 22 Q. MR. TURNER MAKES A RECOMMENDATION ON THE APPROPRIATE 23 INVESTMENT PER DC AMP ON PAGE 26. DO YOU AGREE? 24

BELLSOUTH HAS MADE A CALCULATION ERROR IN DETERMINING

1

2		used by BellSouth in a cost study filed in Florida in 1997 in Docket Numbers 960846-
3		TP, 960757-TP, and 971140-TP. The collocation power cost study in that docket was
4		the very first power cost study performed by BellSouth, and actually underestimated
5		the cost for BellSouth to provision an amp of -48V DC power. The first study was
6		based on a long list of assumptions and performed before any significant activity with
7		collocation in BellSouth's central offices. By contrast, the current cost study
8		producing the \$286 per fused amp investment is more reliable because it is based on
9		actual power construction projects associated with actual collocation power requests
10		and is more reflective of the power investment that BellSouth expects to incur on a
11		going-forward basis.
12		
13	Q.	ON THE TOP OF PAGE 9, MR. CURRY RECOMMENDS THAT
14		BELLSOUTH RECALCULATE ITS DC POWER INVESTMENT USING AN
15		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO
15 16		
		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO
16	A.	INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO
16 17	A.	INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE?
16 17 18	A.	INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE? I do not agree. I believe that the approach taken by BellSouth meets the FCC
16 17 18 19		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE? I do not agree. I believe that the approach taken by BellSouth meets the FCC
16 17 18 19 20		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE? I do not agree. I believe that the approach taken by BellSouth meets the FCC TELRIC requirements and allows BellSouth to recover the costs it expects to incur.
16 17 18 19 20 21		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE? I do not agree. I believe that the approach taken by BellSouth meets the FCC TELRIC requirements and allows BellSouth to recover the costs it expects to incur. MR. TURNER, ON PAGES 28 THROUGH 30, PROPOSES THAT THE AC
16 17 18 19 20 21 22		INCREMENTAL, BUILDING BLOCK OF CAPACITY APPROACH. DO YOU AGREE? I do not agree. I believe that the approach taken by BellSouth meets the FCC TELRIC requirements and allows BellSouth to recover the costs it expects to incur. MR. TURNER, ON PAGES 28 THROUGH 30, PROPOSES THAT THE AC POWER COMPONENT OF THE DC POWER CHARGE BE REDUCED. DO

1 A. No. Mr. Turner recommends that the Commission use the \$165.80 investment figure

1	Energy Estimated U.S. Electricity Utility Average Revenue per Kilowatt Hour to
2	Ultimate Consumers by Sector, Census Division, and State, Year-to-Date (November)
3	2002 and 2001. BellSouth also used the U.S. Department of Energy average when the
4	cost study was developed. BellSouth used \$.07 per kilowatt-hour using the
5	Commercial user category. Mr. Turner states that the Industrial user category is
6	appropriate, which includes a rate of \$.053 per kilowatt-hour. The Commercial user
7	category in Mr. Turner's Exhibit SET-5 for Florida shows \$.07 and \$.067 per
8	kilowatt-hour for 2001 and 2002, respectively. Mr. Turner's support for the
9	Industrial category is (1) his experience with ILECs and (2) his claim that ILECs
10	normally have load-sharing arrangements. As to his first point, Mr. Turner does not
11	provide any detail on his experience with ILECs, or state whether that experience
12	includes BellSouth. As to his second point, load sharing/curtailment agreements are
13	rate riders offered by the power company to be used in conjunction with base rates.
14	BellSouth utilizes these rate riders in conjunction with our base rates, which are
15	commercial, where they are economically and operationally feasible. Further, while
16	BellSouth may have some load-sharing arrangements with some power companies in
17	certain central offices, this is by no means the case in the majority of BellSouth's
18	central offices. Thus, Mr. Turner's vaguely defined "experience" with ILECs is
19	inconsistent with the rates BellSouth actually pays for AC power.
20	
21	Additionally, Mr. Turner makes a statement that, in Georgia, he "obtained copies of
22	invoices for two of BellSouth's central offices and learned that BellSouth actually
23	incurs costs that are much lower than the \$0.07 per kilowatt hour that BellSouth seeks
24	here." Mr. Turner based his assessment on two AC power bills for one month. AC
25	power charges are seasonal and the total charge varies as demand varies. The AC

1		power charges could also vary by central office. One month and a couple of central
2		offices are not enough data to make a reasonable determination. Again, BellSouth
3		used the U.S. Department of Energy average when the cost study was developed. The
4		Department of Energy average for the Commercial user category in Mr. Turner's
5		Exhibit SET-5 for Georgia shows \$.067 per kilowatt-hour for 2001, when BellSouth
6		filed the Georgia study.
7		
8	Q.	PLEASE ADDRESS MR. TURNER'S COMMENTS ON PAGE 29
9		CONCERNING BELLSOUTH'S 85% EFFICIENCY FACTOR FOR
10		RECTIFIER LOSSES WHEN CONVERTING COMMERCIAL AC POWER
11		TO DC.
12		
13	A.	Mr. Turner simply says that BellSouth should use the rectifier efficiency that he
14		-claims exists in AT&T's network. He provides no data to support that claim.
15		Because rectifier efficiency can vary by technology and type, BellSouth chose to use a
16		number that is used by Telcordia in many of its economic studies. Telcordia uses an
17		average figure of 85%. It is interesting to note that Mr. Turner's Exhibits SET-3 and
18		SET-4, the Southwestern Bell DC power investment proposal and the Texas PUC
19		approved investment, both include the use of an 85% rectifier efficiency.
20		
21	Q.	MR. TURNER PROVIDES A DESCRIPTION OF THE PROVISIONING OF
22		DC POWER ON PAGES 30 – 34 OF HIS REVISED REBUTTAL
23		TESTIMONY. HIS MAIN POINT, ON PAGE 34, LINES 5 – 7, IS THAT THE
24		RATE STRUCTURE MUST BE ORGANIZED AROUND ACTUAL USAGE
1 =		TO ACIJIEVE A COST DASED SYSTEM DO VOILACDEE?

1	A	No. BellSouth provisions DC power to collocators by ensuring that there are
2		sufficient "load amps" available to meet the collocators' requirements. In other
3		words, if a collocator requested 40 amps of power (load amps), BellSouth would
4		ensure that 40 amps of DC power plant infrastructure existed and was reserved for the
5		collocator's use. Given that there is a technical requirement to size fuses at 1.5 times
6		the equipment load, BellSouth developed the recurring cost for power based on the
7		assumption that the charge would be per-fused amp, not per-used amp. To account
8		for using per-fused amps, BellSouth multiplies the per-used amp cost by a factor of
9		.6667 (1/1.5) to develop the power charge to the CLEC. Therefore, if a CLEC
10		informs BellSouth that it will need 40 amps of power to operate equipment in a
11		BellSouth central office, the cost-based rate will already account for the use of a 60-
12		amp fuse and the rate being based on 60 amps [40 amps * $1.5 = 60$ amps].
13		
14		Thus, BellSouth developed its cost based on the load amps and the requirement to
15		place fuses at 1.5 times the equipment drain. The DC power plant infrastructure cost
16		is not impacted by actual usage. This cost is based on the collocator's requested load
17		amps.
18		
19	Q.	MR. TURNER RECOMMENDS REDUCING THE WORK TIMES
20		ASSOCIATED WITH FIBER ENTRANCE CABLE INSTALLATION ON
21		PAGES 35 THROUGH 38 OF HIS REVISED TESTIMONY. DO YOU AGREE
22		WITH HIS RECOMMENDATIONS?
23		
24	A.	No. His reasons for reducing the work times are based on a misunderstanding of
25		BellSouth's procedures for installing entrance cable. Despite what Mr. Turner states

1	in his testimony, BellSouth <u>always</u> installs the entrance cable through the manhole
2	into the cable vault up to the splice point. This is never done by a CLEC or it
3	certified vendor. He is correct that most of the current interconnection agreements
4	state that the CLEC will provide and install the riser cable, which is the cable that
5	runs from the collocation space in the central office to the splice point in the cable
6	vault. For that reason, BellSouth is filing cost support for cost elements H.1.65 and
7	H.1.66. These cost elements recover the cost of BellSouth installing the fiber
8	entrance cable from the manhole to the splice point in the vault and splicing the
9	fibers. It also recovers the costs associated with planning the riser cable installation.
10	It does not include the cost to install the riser cable.
11	
12	Cost element H.1.5 recovers the cost of BellSouth installing the fiber entrance cable
13	from the manhole to the splice point, the cost to install the riser cable, and the splicing
14	of the fibers. This element would still apply where an agreement does not require a
15	CLEC to install the riser cable.
16	
17	Q. MR. TURNER ALSO CLAIMS (ON PAGE 35) THAT THE WORK TIME
18	FOR THE COMMON SYSTEMS CAPACITY MANAGER ASSOCIATED
19	WITH RISER CABLE INSTALLATION SHOULD BE REMOVED BECAUSE
20	THE CLEC INSTALLS THE RISER CABLE. HOW DO YOU RESPOND?
21	
22	A. The Common System Capacity Manager work time is valid. This work time is
23	associated with planning the riser cable installation, such as which route the cable
24	should take. This work is required whether BellSouth is installing the riser cable or a
25	CLEC's certified vendor is installing the riser cable. This work time is appropriate

1		for elements H.1.5 and H.1.65.
2		
3	Q.	PLEASE ADDRESS MR. TURNER'S SUGGESTED REDUCTION, ON THE
4		TOP OF PAGE 37, OF THE WORK TIME FOR THE OUTSIDE PLANT
5		ENGINEER.
6		
7	A.	The Outside Plant Engineer work time is also valid. Mr. Turner contends that the
8		work time should be reduced because he interprets the Interconnection Agreement
9		language, which states that CLECs will install riser cable, to mean that the Outside
10		Plant Construction group will not install the entrance cable from the manhole to the
11		vault. BellSouth will always install the entrance cable. It is the riser cable, the cable
12		that runs from the collocation space in the central office to the splice point in the
13		cable vault, that the CLEC will install. Therefore, given that Mr. Turner's sole basis
14		for reducing this work time is his misinterpretation of the Interconnection Agreement,
15		the work time should not be changed. The work time is appropriate for elements
16		H.1.5 and H.1.65.
17		
18	Q.	PLEASE ADDRESS MR. TURNER'S SUGGESTED REDUCTION, ON PAGE
19		37, OF THE WORK TIME FOR OUTSIDE PLANT CONSTRUCTION.
20		
21	A.	As stated previously, BellSouth is filing cost support for cost elements H.1.65 and
22		H.1.66. These cost elements recover the cost of BellSouth installing the fiber
23		entrance cable from the manhole to the splice point in the vault and splicing the
24		fibers. Cost element H.1.5 recovers the cost of BellSouth installing the fiber entrance
25		cable from the manhole to the splice point, the cost to install the riser cable, and the

1		splicing of the fibers. BellSouth has already shown a reduction in the work time for
2		Outside Plant Construction in element H.1.65 as a result of the CLEC installing the
3		riser cable. That reduced work time is 5.25 hours. Given that BellSouth continues to
4		install the fiber entrance cable from the manhole to the vault, that reduced work time
5		is appropriate.
6		(**
7	Q.	PLEASE ADDRESS MR. TURNER'S SUGGESTED REMOVAL, ON PAGE
8		38, OF THE COST FOR MANHOLE CONTRACT LABOR.
9		
10	A.	Because BellSouth continues to install the fiber entrance cable from the manhole to
11		the splice point in the vault, the manhole contract labor is required, and is
12		appropriately included.
13		
14	Q.	MR. TURNER SUGGESTS THAT BELLSOUTH SHOULD HAVE TWO
15		RATE ELEMENTS FOR ENTRANCE CABLE INSTALLATION. PLEASE
16		RESPOND.
17		
18	A.	Mr. Turner suggests having one element that includes the cost of splicing and one that
19		does not. Alternatively, he suggests developing a weighted cost based on the
20		percentage of installations that require splicing. BellSouth has proposed fiber
21		entrance cable installation collocation elements H.1.65 and H.1.66, which separate the
22		nonrecurring cost of labor to pull the fiber cable from the nonrecurring cost to splice
23		the fibers. Thus, if a splice is not required due to the type of cable, the splicing
24		charge, element H.1.66, would not apply. Contrary to Mr. Turner's assertion,
25		collocators would not be charged for spicing when the splicing is not done.

1	Q	SECURITY ACCESS LABOR TIMES ARE DISCUSSED ON PAGES 38
2		THROUGH 39 OF MR. TURNER'S TESTIMONY. DO YOU AGREE WITH
3		HIS RECOMMENDATIONS?
4		
5	A.	No. Mr. Turner makes three recommendations regarding the security access labor
6		times, none of which have merit. First, Mr. Turner's recommendation is to use the
7		labor time of 0.2 labor hours per card instead of the 0.8583 labor hours per card that
8		he says is used in BellSouth's study. What Mr. Turner apparently overlooks is that
9		both labor times are used in the study. The 0.2 labor hours are for the customer
10		contact person to verify contractual status for billing and provisioning purposes and to
11		ensure that the order is placed. The 0.8583 labor hours are for contract labor to
12		administer the ordering, programming and distribution of access cards. Each is a
13		valid and appropriate work time that applies to the labor involved in two different
14		functions.
15		
16		His second recommendation is for the Commission to modify BellSouth's cost for
17		replacing a security card so that it will not be more than the cost to initially provide
18		one. However, Mr. Turner is mistaken in the belief that the charge BellSouth
19		proposes to replace a security card is greater than the charge to initially provide a
20		security card. The cost element for new card activation is H.1.38 and the cost element
21		to replace lost or stolen card is H.1 40. The cost for H.1.38 is \$38.95 and the cost for
22		H.1.40 is \$28.78. Therefore, no change is required.
23		
24		Mr. Turner's third recommendation is that the Commission set the Security Key costs
25		equal to those for the Security Card because, he contends, this will be consistent with

1 TELRIC. Mr. Turner bases his recommendation on the belief that BellSouth did not 2 provide support for the times or costs associated with the Security Key, and also that the physical key would not be required in the future. Again, Mr. Turner is mistaken. 3 4 BellSouth did provide support for the Security Key study. The support for the 5 Security Key work times and costs are in the file labeled, "FLphycol.xls". 6 Furthermore, there are cases when keys will be required in the future. For example, 7 there could be a need for internal keys (keys to gain access to secure areas inside 8 central office) and to access secure gateways. In addition, the FCC, in the Advanced 9 Services Order, paragraph 48, made clear that ILECs can recover reasonable security 10 cost. Hence, the Security Key costs are appropriate in a TELRIC study. 11 Q. ON PAGES 40 AND 41 OF MR. TURNER'S TESTIMONY, HE ADDRESSES 12 ALLEGED PROBLEMS WITH THE SUBSEQUENT APPLICATION COST. 13 14 PLEASE RESPOND. 15 A. The first alleged problem is that the Job Grade 58 function shows 6.5 hours for the 17 initial application and 7.5 hours for subsequent applications. Mr. Turner claims that 18 subsequent applications generally require less labor (page 40, lines 13 - 14). This claim is not correct, at least in this case. The Job Grade 58 function is performed by 19 20 the Account Team Collocation Coordinator ("ATCC"). Two of the functions performed by the ATCC are: 1) to gather response data from the various 21 22 interdepartmental network and real estate coordinators and review them for 23 compliance with the Agreement or Regulatory requirements, and 2) to respond to the 24 interdepartmental coordinators' questions. For the first function listed, the ATCC is 25 gathering information to respond to the CLEC's request for collocation (e.g.,

1 information on space, alternative arrangements, power, entrance facility duct space, 2 and building related requirements). For the second function, the ATCC responds to 3 questions from the interdepartmental team on issues relating to the Agreement. 4 5 An additional hour is shown for the subsequent application because it takes longer, on 6 average to perform these two functions on subsequent applications than the initial 7 one. This is primarily due to CLECs typically having new Agreements or 8 amendments to Agreements or Regulatory requirements changes since the initial collocation space was established. The ATCC would spend more time to ensure the 9 interdepartmental team is aware of differences so they can properly respond to the 10 11 augment request. They would review prior applications as well to ensure the current application can be processed as requested. The ATCC would also spend more time 12 reviewing the responses from the interdepartmental team. For example, while a prior 13 Agreement may have allowed for Point of Termination ("POT") Bays or POT Bay 14 15 connections, the current one may not. This will require the ATCC to verify whether 16 that arrangement can be provided as requested. There are simply opportunities for more conflicts to occur when augmenting an arrangement. 17 18 Q. PLEASE ADDRESS THE SECOND ALLEGED PROBLEM. 19 20 21 A. The second alleged problem Mr. Turner identified with the development of the subsequent application cost concerns the time shown for the Outside Plant Engineer 22 23 ("OSPE"). Mr. Turner contends that no time should be included because, he claims, engineering is almost never required for subsequent applications. However, the 24 OSPE must review every application, both initial and subsequent, and determine 25

1 whether work is required. The amount of time included is only 30 minutes. This 30 2 minutes is an average. There are situations when this review could take less time and 3 there are situations when this review could take more time. In either case, a response 4 is required by the OSPE on all applications, including subsequent applications. 5 6 O. WHAT IS THE THIRD ALLEGED PROBLEM? 7 A. The third problem Mr. Turner alleges regarding the development of the subsequent 9 application cost concerns the fact that the level of work required by Parsons 10 Engineering is assumed to be the same as for the initial application. Mr. Turner is not 11 totally correct. While the Parsons Engineering fee input for the initial and subsequent 12 application is the same, the actual amount of engineering work would not be the 13 same. The Parson's engineering fee input is based on the average amount of work 14 performed on both initial and subsequent applications. There would likely be more engineering work associated with the initial applications than subsequent applications, 15 as a general rule, however, their fee is based on an average of both. Thus, the Parsons 16 17 Engineering fee, as included in the BellSouth's cost study, should apply on both the 18 initial application and subsequent application. If the fee were reduced on the subsequent applications, as Mr. Turner proposes, then it would have to be 19 20 correspondingly raised for initial applications. 21 22 Q. MR. GABEL, ON PAGES 38 THROUGH THE TOP OF PAGE 41, ADDRESSES THE COST TO PROCESS AN APPLICATION AND THE 23 ENGINEERING COST AFTER A CLEC HAS ACCEPTED THE 24 APPLICATION. HE STATES THAT SPRINT AND BELLSOUTH EXPECT

1 TO BE LESS EFFICIENT BECAUSE THEIR WORK TIMES AND ACTIVIES

2 ARE GREATER THAN VERIZON'S. DO YOU AGREE?

A. No. Mr. Gabel has reached the erroneous conclusion that each ILEC providing collocation will have the same expected work activities and work times. The expected work activities and work times are based on each company's processes and procedures. These procedures would be based on the current network infrastructure, network planning, network forecasts, etc. For example, collocation application review time could potentially be affected by: 1) the amount of collocation and other central office activity, 2) the amount of available space typically seen in central offices, 3) the budget for central office work, and 4) the number of central offices in the state. BellSouth has estimated its work times and work activities based on the requirements associated with its procedures and network. BellSouth is unable to address why Verizon can perform this function in less time, but believes that it is not appropriate to simply assume that Verizon is more efficient. A more reasonable assumption is that the work times are different because the actual work that is necessary differs from one company to the next.

Mr. Gabel refers to Paragraph 690 of the FCC's First Report and Order in the Local Competition Docket (CC Docket No. 96-98, Released August 8, 1996) in footnote 46 of his testimony (page 36). He states on page 36, "TELRIC calls for costs to be based on those incurred by an efficient firm." As additional useful information, paragraph 685 of the FCC's First Report and Order, which ends with basically the same words referred to in paragraph 690, states the following:

1		This benchmark of forward-looking cost and existing network design most
2		closely represents the incremental costs that incumbents actually expect to
3		incur in making network elements available to new entrants.
4		(emphasis added)
5		,
6		BellSouth bases its work times and activities on its network and what it expects to
7		incur as a result of reviewing a collocation application.
8		
9	Q.	MR. GABEL REFERS (AT PAGE 38 AND PAGE 40) TO TWO EXHIBITS,
10		EXHIBITS DJG-3 AND DJG-4. IS THE BELLSOUTH INFORMATION
11		SHOWN ON THOSE EXHIBITS ACCURATE?
12		
13	A.	BellSouth's work times shown in Exhibit DJG-3 are correct. However, BellSouth's
14		work times shown in Exhibit DJG-4 are not correct. BellSouth's "post acceptance"
15		work function is called Space Preparation – Firm Order Processing (cost element
16		H.1.45). Firm Order Processing recovers costs associated with receiving, reviewing,
17		and processing a collocation firm order. A CLEC submits a firm order to notify
18		BellSouth to move forward with the collocation installation work after reviewing the
19		application response. BellSouth's total work time is 5.5 hours and applies for all
20		physical collocation firm orders.
21		
22	Q.	PLEASE ADDRESS MR. GABEL'S RECOMMENDATION (PAGE 39) THAT
23		THE RATE STRUCTURE MIRROR THE WAY VERIZON CALCUALTED
24		ITS PROPOSED COSTS BY INCLUDING A "PRE-ACCEPTANCE FEE"
25		AND A "POST ACCEPTANCE FEE."

A. BellSouth has been operating, and continues to operate, under a similar rate structure. BellSouth has application fees (e.g., H.1.1, H.1.46) that apply for work associated 2 3 with a CLEC submitting an application to request a specific collocation arrangement. 4 The application fee recovers costs associated with various activities, such as 5 reviewing application for accuracy, processing the application, review of application 6 by different departments, and compiling responses on the specific application. Thus, 7 these rate elements correspond to Mr. Gabel's "pre-acceptance fee" element. 8 9 BellSouth also has a cost element called Space Preparation – Firm Order Processing. As stated above, Firm Order Processing recovers costs associated with receiving, 10 11 reviewing, and processing a collocation firm order. A CLEC submits a firm order to 12 notify BellSouth to move forward with the collocation installation work after 13 reviewing the application response. Therefore, BellSouth's rate structure agrees with Mr. Gabel's recommendation. 14 15 16 It should be noted that the recurring Space Preparation cost elements (elements 17 H.1.41, H.1.42, and H.1.43) allow BellSouth to recover the cost of engineering, design, and modification of the network infrastructure and the building to meet a 18 19 collocator's specified requirements. 20 21 Q. MR. TURNER, ON PAGE 42, STATES THAT BELLSOUTH'S SPACE 22 AVAILABILITY REPORT NONRECURING CHARGE IS OUT OF RANGE WITH WHAT SOME OTHER STATES HAVE ORDERED. PLEASE 23 RESPOND. 24 25

A. First, Mr. Turner's analysis did not include charges for any of BellSouth's states, 2 which he obviously has access to, and could have included. If Mr. Turner had 3 reviewed the Commission approved charges for other states in BellSouth's territory, 4 he would have seen that BellSouth's proposed charge in Florida is not out of line. In 5 fact, it is the lowest. For example, the nonrecurring charge ordered in Alabama in its 6 UNE cost docket is \$1,075.12, the charge ordered in South Carolina in its UNE cost 7 docket is \$1,077.57, and the nonrecurring charge ordered in Louisiana in its UNE cost 8 docket is \$1,044.07. BellSouth proposed nonrecurring charge of \$572.66 for Florida 9 is appropriate and is based on its latest review of this activity. 10 11 BellSouth is entitled to recover its cost of providing space availability reports to 12 CLECs. To develop the cost, BellSouth first determined the work groups involved 13 and the amount of time they would require to produce a report. Then the work time 14 was multiplied by the appropriate labor rate and factors to calculate the cost for 15 developing the report. 16 17 To produce the report requires one group to interface with the CLEC and two other 18 groups to make an assessment and compile data of current space availability, current 19 and future space demand, current and future associated power and air conditioning 20 needs, etc. BellSouth is not aware of what assumptions are used by other companies 21 in the development of their charge for providing a space availability report. However, 22 the marked difference between the approved charges in the out-of-region states Mr. 23 Turner cites to and the charges described above approved in BellSouth's region suggest that the charges in these out-of-region states reflect different activities, etc. In 24 25 other words, the existence of these differences demonstrates that the rates in the out-

1		of-region states are a poor basis for comparison.
2		
3	Q.	PLEASE RESPOND TO MR. TURNER'S STATEMENT THAT HE "IS
4		CONFIDENT" THAT BELLSOUTH HAS AT ITS DISPOSAL A COMPUTER
5		AIDED DESIGN SYSTEM TO MAINTAIN A SPACE INVENTORY FOR USE
6		IN DEVELOPING A SPACE AVAILABITLIY REPORT (PAGE 43)?
7		
8	A.	The way Mr. Turner has phrased his statement suggests that he has no actual
9		knowledge on this point. Further, BellSouth does not, in fact, have such a system.
10		While BellSouth does have a computer aided design (CAD) system that it uses to
11		maintain floor space drawings for company purposes, the CAD system is not real-
12		time. It is updated on a scheduled basis. Further, given that BellSouth has over 1600
13		central offices, it is not reasonable to assume that the CAD system will have the
14		current information at any point in time. As a result, Mr. Turner is incorrect to the
15		extent he suggests BellSouth is seeking to recover the costs of building an inventory;
16		rather BellSouth is seeking to recover the cost that will be incurred in preparing a
17		report requested by a CLEC. It should be noted that BellSouth has received less than
18		five CLEC requests for these reports in all nine states. Thus, the report is just an
19		option that is made available to CLECs, but which they rarely choose to utilize.
20		
21	Q.	ON PAGES 43 AND 44, MR. TURNER EXPRESSES TWO CONCERNS WITH
22		THE COST DEVELOPMENT FOR THE COPPER ENTRANCE CABLE
23		INSTALLATION NONRECURRING CHARGE. HOW DO YOU RESPOND?
24		
25	A.	First, as stated in my direct testimony and as addressed by Mr. Milner's testimony

1	regarding issue 4 in phase I, BellSouth does not believe that ILECs should be required
2	to provide copper entrance facilities. If the Commission accepts BellSouth's position
3	in phase I of this proceeding, then this issue becomes moot. These cost elements are
4	being provided for the sole purpose of providing the Commission with complete
5	information in order to make a final decision regarding the elements.
6	> ∮
7	However, in response to Mr. Turner's first concern, BellSouth always installs the
8	entrance cable (fiber or copper) from the manhole to the splice point in the vault,
9	therefore, the manhole contract labor is valid.
10	
11	Mr. Turner's second concern is related to the fact that BellSouth has two cost
12	elements for the copper entrance cable. He lists them as H.1.57 and H.1.58. H.1.57 is
13	comparable to H.1.5 (fiber entrance cable). Element H.1.57 recovers the cost to
14	perform functions other than splicing, e.g., pulling the entrance cable from the
15	manhole to the vault and placing the cable on racks in the vault. In contrast, Element
16	H.1.58 recovers the cost to splice copper pairs. H.1.58 is a new cost element. This
17	new element recovers the additional cost associated with the need to perform many
18	more splices for copper cables than fiber cables. For fiber cable, BellSouth would
19	splice the number of fibers in the cable (e.g., if a 24 fiber cable was used, then 24
20	fibers would be spliced). However, if a relatively small copper cable of 1200 cable
21	pairs was used, then BellSouth splices 1200 pairs. Thus, there would be a need to
22	establish a new cost element and both charges are appropriate. There are connection
23	and test activities performed in both cost elements.
24	

7		CHARGES.
2		
3	A.	Cable Records charges apply for work required to build cable records in company
4		systems. The cables belong to the collocator. The collocator's certified vendor runs
5		the cables (e.g., voice grade/ DS0 and DS1) from the collocation space to the
6		distribution frame. The collocators' specific distribution frame termination locations
7		are needed for the collocator to place orders to cross-connect network elements (e.g.,
8		unbundled loops) to their collocated equipment.
9		
10		The work activities associated with building cable records are one-time or
11		nonrecurring. Once the records are built, there would be no need to make a change
12		unless requested to do so by the CLEC.
13		
14	Q.	MR. TURNER, ON PAGES 44 AND 45, STATES THAT THERE SHOULD
15		NOT BE A CHARGE FOR CABLE RECORDS WORK. WHY IS IT
16		APPROPRIATE FOR BELLSOUTH TO APPLY A NONRECURING
17		CHARGE FOR INPUTTING CABLE RECORDS FOR CLECS?
18		
19	A.	The only reason this work would be done is to comply with the request of a CLEC
20		desiring to collocate equipment in BellSouth's central office. In other words, the
21		work is strictly driven by a collocation application and the need to input new
22		information in current systems for the benefit of the collocator. BellSouth has simply
23		developed a standard rate for the activity associated with manually inputting carrier-
24		specific cable termination information into our systems. Since BellSouth performs
25		this work solely at the request of a CLEC, BellSouth should be able to recover the

1 one-time costs associated with such work. 2 Q. PLEASE ADDRESS MR. TURNER'S CONCERNS WITH THE 3 4 DEVELOPMENT OF THE COLLOCATION CABLE RECORDS CHARGE. 5 A. Mr. Turner does not claim that cable records should not be kept. Instead, he wrongly 7 assumes that other rate elements and factors (e.g., the maintenance factor) used to 8 develop recurring rates duplicate the functions and labor that comprise the elements 9 that recover cable records costs. Regarding the other rate elements, Mr. Turner 10 believes that the labor time that BellSouth includes for the Circuit Capacity Manager 11 ("CCM") function in cable records is duplicative of functions and labor cost captured 12 in the Application cost and Subsequent Application cost elements (H.1.1 and H.1.46). 13 This is not true. The CCM labor time and functions associated with the application 14 responses (elements H.1.1 and H.1.46) are strictly associated with reviewing the 15 collocation application requirements (e.g., shelves, bays, frame terminations), 16 interfacing with other network groups, and providing input to the final application 17 response to the CLEC. These activities occur prior to a CLEC accepting an application response. 18 19 Once a CLEC accepts an application response by submitting a bona fide firm order, 20 21 BellSouth's space preparation work begins. Additionally, the cable records work 22 begins. The CCM interfaces with CLECs, obtains the equipment inventory utilization 23 of the frames, and interfaces with other network individuals to develop the initial 24 frame assignments based on CLECs' applications and firm orders. This activity can 25 occur anytime between the receipt of a firm order and BellSouth's completion of its

1	work at the collocation site.	
2		
3	During the application review phase, the CCM verifies equipment availability and	
4	other associated equipment requirements. After the firm order is received the CCM	
5	obtains specific frame utilization information and coordinates with CLECs and/or	
6	CLECs' certified vendors to develop the initial assignment of frame locations and	
7	works with other network groups to ensure that the actual facility assignments are	
8	included in required databases for CLECs. Thus, the work is not duplicative.	
9		
10	Regarding factors, BellSouth does not recover cable records costs via factors. The	
11	manual effort to update cable records is not recovered by maintenance or any other	
12	factors used by BellSouth. Factors do not recover the manual effort to input the	
3	CLEC's cable information into BellSouth's systems. For example, maintenance	
4	-factors recover the cost of performing routine work to prevent trouble, including	
5	inspecting and reporting on the condition of plant investment. The cable records work	k
6	is not associated with BellSouth's normal repair and maintenance of systems.	
7	Therefore, the proposed nonrecurring charges do not over-recover costs.	
8		
9	Q. ON PAGES 50 AND 51, MR. GABEL DISCUSSES COLLOCATION CABLE	
20	RECORDS. HE RECOMMENDS THAT BELLSOUTH PROVIDE IN ITS	
21	SURREBUTTAL TESTIMONY A DETAILED EXPLANATION OF THE	
22	FUNCTIONS ASSOCIATED WITH THIS SERVICE, THE BASIS FOR ITS	
23	TIME ESTIMATES, AND ADDRESS THE DEGREE TO WHICH SPRINT	
24	AND VERIZON SEEK COST RECOVERY OF SIMILAR ACTIVITIES.	
25	PLEASE RESPOND.	

1 A. As stated above, Cable Records charges apply for work required to build cable 2 records in company systems. The cables belong to the collocator. The collocator's 3 certified vendor runs the cables (e.g., voice grade/ DS0 and DS1) from the collocation 4 space to the distribution frame. The collocators' specific distribution frame 5 termination locations are needed for the collocator to place orders to cross-connect 6 network elements (e.g., unbundled loops) to their collocated equipment. 7 8 There are several groups involved in the process of identifying frame terminations, 9 assigning frame terminations, verifying frame terminations, and notifying CLECs', 10 via circuit facility assignments, of final frame assignments. The CCM is the group 11 that interfaces with CLECs and the other BellSouth network groups. The CCM 12 obtains the equipment inventory utilization of the frames and works with the CLEC or 13 CLEC's certified vendor on the initial assignment on the frames. This activity could 14 include several phone calls, several meetings, and a site visit to the central office. 15 Once the CLEC's certified vendor installs the cables on the frame, BellSouth must 16 verify that the correct terminations were made before facility assignments are input in 17 the required databases. These activities can occur anytime between firm order and completion of the space preparation. 18 19 20 Once the frame terminations are verified, the CCM works with the other network 21 groups to provide the needed information for them to begin the process of inputting 22 the assignments in databases. The other groups are: COSMOS [computer system for 23 main frame operations]/Switch, Address & Facility Assignment ("AFIG"), Loop Capacity Management ("LCM"), and Circuit Provisioning Group ("CPG"). All of the 24 groups, except CPG, just handle voice grade frame information. The CPG works with 25

1		DS1, DS3 and Fiber frame terminations.
2		
3		The LCM, upon receiving the information from the CCM, investigates existing
4		collocation cables at the same office, assigns new cable range and name (being careful
5		not to duplicate any cable ranges already being used), and creates terminal name and
6		count including unique address to identify the collocation terminal. This information
7		is provided back to the CCM and also to the AFIG and COSMOS/Switch for input
8		into databases. The COSMOS/Switch group inputs the voice grade (2 wire and 4-
9		wire) frame information into COSMOS/Switch by first establishing the inventory
10		range and then inputting the frame location and any remarks. The AFIG identifies
11		cable and pair range and builds the inventory in the loop/local facility assignment
12		control system ("LFACS"). The AFIG also places restrictions on the collocator's
13		facilities to keep BellSouth from accidentally assigning them for other use.
14		
15		The CPG, upon receiving the information from the CCM, inputs the customer
16		information for DS1s, DS3s, and Fiber cables into the Trunk Integrated Records
17		Keeping System ("TIRKS").
18		
19	Q.	NOW THAT YOU HAVE PROVIDED AN EXPLANATION OF THE
20		FUNCTIONS ASSOCIATED WITH THIS SERVICE, WHAT IS THE BASIS
21		FOR THE TIME ESTIMATES?
22		
23	A.	BellSouth has estimated its work times and work activities based on the requirements
24		associated with its procedures and network. BellSouth must ensure that frame
25		assignments are made correctly before beginning the process of entering this

1 information into the databases. If the information is not entered correctly, CLECs 2 requesting connection to unbundled elements (e.g., unbundled loops or unbundled 3 ports) will not be able to establish that connection. Without the correct information in 4 the databases, when the order is placed the assignments will not cross connect the 5 right terminations on the frames. Therefore, the CCM must work with the CLEC and 6 the other network groups to ensure that the correct facility assignments are made and 7 input into the databases. Additionally, this is not a new function for BellSouth. 8 BellSouth charged for this function in the past via Additional Engineering Charges. 9 Establishing the Cable Records charge simply allows BellSouth to provide this 10 function using a standard charge. 11 12 O. CAN YOU ADDRESS THE DEGREE TO WHICH SPRINT AND VERIZON 13 SEEK COST RECOVERY OF SIMILAR ACTIVITIES? 14 A. BellSouth cannot know with complete confidence the answer to this question. 16 However, BellSouth believes that both Verizon and Sprint recover this cost in other 17 cost elements. For example, Verizon may recover this cost in its Facility Pull charges (e.g., Elements 12 and 13) and Cable Termination charges (e.g., Elements 15 – 18) 18 19 since they seem to be associated with cross connections and installing the cable from 20 the collocation space to the frame. Sprint may recover this cost in its Administrative 21 & Project Management Fees (Elements 2, 4, and 7). The description of the Regional 22 Transmission Engineer functions (page 8 of 17 of Davis Exhibit JRD-2) include 23 engineering work for cross connects and updating the circuit assignment system. This description is under Administration & Project Management Fees. Therefore, 24 25 BellSouth believes that Verizon and Sprint seek cost recovery for this activity, which

1		is only reasonable. Moreover, BellSouth does not have the above-described Sprint
2		and Verizon cost elements in its list of cost elements.
3		
4	Q.	MR. TURNER ADDRESSES THE FLOOR SPACE COST ON PAGES 45 – 49
5		OF HIS TESTIMONY. HIS BASIC ALLEGATION IS THAT SINCE THE
6		INVESTMENT USED BY BELLSOUTH IN ITS STUDY IS GREATER THAN
7		PUBLICLY AVAILABLE DATA ON TELECOMMUNICATIONS SPACE
8		INVESTMENT, IT IS INCONSISTENT WITH TELRIC PRICINCIPLES AND
9		SHOULD BE REJECTED. DO YOU AGREE?
10		
11	A.	No. Mr. Turner basically contends that BellSouth's investment amount is improper
12		and non-compliant with TELRIC because he can find a way to develop a lower
13		investment number based on data that does not relate to BellSouth's network.
14		Specifically, Mr. Turner states that publicly available investment data from R.S.
15		Means should be used because it contains information that is verifiable and can be
16		reviewed.
17		
18		The floor space charge allows BellSouth to recover the cost of the building space
19		being occupied by collocators. Obviously, the use of <u>actual</u> costs for BellSouth's
20		actual telephone-company building additions are more reflective of the costs that
21		BellSouth will incur in providing floor space to CLECs on a going forward basis than
22		publicly available data that does not relate to BellSouth. There is no reason to believe
23		that the costs incurred recently are not reflective of future expenditures.
24		
25		The R.S. Means publication simply estimates construction costs based on past

1		construction jobs. R.S. Means averages jobs done across the nation. It is dependent
2		upon contractors reporting information to it. The user of the average national data
3		from R.S. Means must then use a modifier to adjust for the size of the building. The
4		user must also use a factor to adjust the national average to make it a state/city
5		average. R.S. Means can be best described as an estimator.
6		141
7		The investment number used by BellSouth is based on actual jobs in BellSouth
8		central offices in Florida. Thus, this number reflects the cost of provisioning
9		collocation, which meets TELRIC requirements. TELRIC principles do not require
10		that the information must be publicly available. BellSouth simply believes it is better
11		to use actual data to determine realistic investment numbers rather than to manipulate
12		an estimate based on national averages to arrive at an artificially low investment
13		number.
14		
15	Q.	MR. GABEL, ON PAGES 12 – 22, ADDRESSES FLOOR SPACE AND SPACE
16		PREPARATION COSTS. PLEASE DESCRIBE THE FLOOR SPACE COST
17		ELEMENT.
18		
19	A.	The Floor Space cost element is a recurring cost element that recovers the cost of the
20		building space being occupied by CLECs. It includes the costs for lighting, heating,
21		air conditioning, and other allocated expenses and associated maintenance of the
22		building.
23		
24	Q.	PLEASE DESCRIBE YOUR SPACE PREPARATION COST ELEMENTS.
25		

1	A.	Space Preparation cost elements allow BellSouth to recover the cost of engineering,
2		design, and modification of the network infrastructure and the building to meet a
3		collocator's specified requirements. Such modification could include:
4		 Augmenting air conditioning cooling capacity
5		 Reworking ventilation ducts
6		 Adding cable racking
7		 Adding or moving light fixtures
8		
9		BellSouth's Space Preparation costs consist of four cost elements. Only one of them
10		is nonrecurring. The other three are recurring costs. The nonrecurring Space
1		Preparation cost element is called Firm Order Processing and it recovers costs
2		associated with receiving, reviewing, and processing a collocation firm order. A
13		CLEC submits a firm order to notify BellSouth to move forward with the collocation
14		installation work after reviewing the application response.
15		
16		The three recurring cost elements are: 1) C.O. Modification per square foot, 2)
7		Common Systems Modification per square foot for <u>cageless</u> collocation, and 3)
8		Common Systems Modification per cage for <u>caged</u> collocation.
9		
20	Q.	PLEASE DESCRIBE SPACE PREPARATION - C.O. MODIFICATION PER
21		SQUARE FOOT.
22		
23	A.	This element recovers the costs associated with the building design, construction and
24		modification work associated with preparing a central office space for collocation.
25		For example, it would include the following types of work:

1		heating, ventilation, and air conditioning
2		• electrical
3		• architectural
4		
5		This element applies for both cageless and caged collocation.
6		
7	Q.	PLEASE DESCRIBE SPACE PREPARATION – COMMON SYSTEMS
8		MODIFICATION PER SQUARE FOOT.
9		
0	A.	This element recovers the costs associated with the installation and modification of
1		network infrastructure (e.g., cable racking, stanchions, AC main feed to bay, fiber
2		ducts) required to prepare the central office for cageless collocation. Note that this
3		element would only apply with cageless collocation.
4		
5	Q.	PLEASE DESCRIBE SPACE PREPARATION – COMMON SYSTEMS
6		MODIFICATION PER CAGE.
7		
8	A.	This element recovers the costs associated with the installation and modification of
9		network infrastructure (e.g., cable racking, stanchions, AC main feed to bay, fiber
20		ducts) required to prepare the central office for <u>caged collocation</u> . Note that this
21		element would only apply with caged collocation.
22		
23	Q.	ON PAGES 13 AND 14 OF HIS TESTIMONY, MR. GABEL EXPRESSES
24		THREE CONCERNS WITH THE METHOD USED BY BELLSOUTH TO
25		ESTIMATE FLOOR SPACE INVESTMENT. PLEASE RESPOND.

A. First, Mr. Gabel is concerned that not enough central offices are represented to be a 2 statistically valid sample. As stated above, the floor space charge allows BellSouth to 3 recover the cost of the building space being occupied by collocators. BellSouth believes that the use of actual costs for its actual telephone-company central office 4 building additions are reflective of the costs that BellSouth will incur in providing 5 6 central office floor space to CLECs on a going forward basis. There is no reason to 7 believe that the costs incurred recently are not reflective of future expenditures. All 8 building additions shown were made to existing central office buildings. As for the 9 number of observations used, BellSouth used 100% of the building additions with 10 final numbers for the years 2001 and 2002. These were the most current jobs. The 11 numbers are unbiased in that we did not selectively remove any jobs from the study. 12 Mr. Gabel's second concern is with the degree of variation in the cost per square foot 13 14 shown from one of the central office building additions to the next. The cost per 15 square foot by central office does vary. This variation is due to the specific requirements at each central office. For example, some building additions could 16 17 trigger the need for a new air conditioning system or other high cost items. 18 Additionally, the code requirements in one city could be more stringent than in another city. 19 20 21 Third, Mr. Gabel states that the data used by BellSouth is not appropriate for a 22 TELRIC study because BellSouth has "used incremental rather than total demand in 23 its space study." (Page 14, lines 11 - 20) He refers to paragraph 682 in the FCC's 24 First Report and Order in the Local Competition Docket (CC Docket No. 96-98, 25 Released August 8, 1996) in footnote 10 of his testimony (page 14). He states on

1 page 14, "The FCC's pricing order requires that TELRIC cost estimates be obtained 2 'by dividing the total cost associated with the element by a reasonable projection of 3 the actual total usage of the element'." BellSouth has, in fact, done this. The total 4 cost of the building additions have been divided by the total useable square footage added, which include both space used by BellSouth and other parties (i.e., total cost 5 6 divided by actual total usage). This methodology, since it is based on the most 7 current expenditures, is reflective of forward-looking space cost for both BellSouth 8 and collocators. Moreover, given that the FCC's collocation rules (specifically FCC 9 Rule 51.323(f)(1)) do not require ILECs to lease or construct additional space to 10 provide for physical collocation when existing space has been exhausted, BellSouth 11 does not believe that there is TELRIC requirement to develop an investment based on 12 reconstructing all central offices in the state and dividing by the total central office 13 space in all central offices in the state. 14 15 Q. PLEASE ADDRESS MR. GABEL'S CLAIM (PAGE 16, LINES 2 – 7) THAT 16 BELLSOUTH'S INVESTMENT ESTIMATE IS SIGNIFICANTLY OUT OF 17 LINE WITH THE ESTIMATES OF VERIZON AND SPRINT. 18 A. Mr. Gabel seems to believe that BellSouth's methodology for developing the 20 investment for the Floor Space cost has led to an investment per square foot that is 21 significantly more than TELRIC and what the other party's in this docket have 22 proposed. Based on my review of the other party's filing, I do not agree. While it 23 does appear that BellSouth's investment per square foot is greater than Verizon's, it 24 also appears that BellSouth's investment is less than Sprint's. 25

1		Moreover, as stated above, in approving BellSouth's applications for in-region
2		interLATA authority in all of its nine states, the FCC concluded that BellSouth
3		provides collocation based on TELRIC. The same Floor Space cost development
4		process that Mr. Gable criticizes was in use at the time the FCC made that
5		determination. BellSouth's Floor Space cost/rate is reasonable and
6		nondiscriminatory.
7		
8	Q.	MR GABEL ADDRESSES SPACE PREPARATION CHARGES ON PAGES 17
9		AND 18. HE STATES THAT BELLSOUTH HAS NOT DEMONSTRATED
10		THAT THE COSTS REPORTED ON H.1.41 ARE FROM A RANDOM
11		SAMPLE AND REPRESENTATIVE OF THE LOCATIONS WHERE THE
12		COMPANY INCURS SPACE PREPARATION COSTS. PLEASE RESPOND.
13		
14	A.	As stated above, Space Preparation cost elements allow BellSouth to recover the cost
15		of engineering, design, and modification of the network infrastructure and the
16		building to meet a collocator's specified requirements. BellSouth's Space Preparation
17		costs consist of four cost elements. The three recurring cost elements are: 1) C.O.
18		Modification per square foot, 2) Common Systems Modification per square foot for
19		cageless collocation, and 3) Common Systems Modification per cage for caged
20		collocation. Although Mr. Gabel criticizes BellSouth's space preparation charges in
21		general, his comments really only address element H.1.41, which is the C.O.
22		Modification per square foot element. Specifically, Mr. Gabel contends that
23		BellSouth has not shown that its sample is representative.
24		
25		This element recovers the costs associated with the building design, construction and

1	modification work associated with preparing a central office space for collocation. To
2	develop this forward-looking investment, BellSouth started with final investment data
3	from actual collocation projects over a certain time period. Costs that would not
4	apply on a forward-looking basis, such as barrier walls, were backed out. This data
5	was obtained region-wide due to the limited quantity of collocation projects with final
6	costs. Attached, as Exhibit WBS-5, is a copy of the data. All available projects
7	during the time period with final costs were used. A weighted-average of the data
8	from all nine states was taken to produce the forward-looking investment per square
9	foot of \$121.11. A total of 123 projects encompassing 594 firm order collocation
10	sites were used. Thus, the investments shown for element H.1.41 are representative
11	of locations where the company incurs space preparation costs.
12	
13	The FCC, in paragraph 51 of its Advanced Services Order, specifically allows ILECs
14	to recover the costs of preparing collocation space. It states:
15	
16	We conclude, based on the record, that incumbent LECs must allocate
17	space preparation, security measures, and other collocation charges on a
18	pro-rated basis so the first collocator in a particular incumbent premises
19	will not be responsible for the entire cost of site preparation.
20	
21	BellSouth's methodology for developing the investment per square foot or per cage is
22	simply a way of pro-rating the cost of collocation space preparation requirements
23	among CLECs on a reasonable and nondiscriminatory basis.
24	
25	Q. MR. GABEL STATES THAT (PAGE19) BELLSOUTH'S TARIFF

1	REQUIREMENTS AT TERMINATION OF OCCUPANCY MEANS THAT
2	THE CLEC IS INAPPROPRIATELY REQUIRED TO BOTH MAKE THE
3	SPACE READY FOR ITSELF (AT THE TIME OF OCCUPATION) AND
4	MAKE THE SPACE READY FOR THE NEXT COLLOCATOR AS WELL.
5	IS HE CORRECT?
6	
7	A. No. The tariff simply requires the CLEC to remove its equipment/property and to
8	return the space in the same condition when first occupied by the CLEC. The CLEC
9	is only responsible for removing its equipment, not BellSouth's equipment. The
10	CLEC is not required to remove any items of investment (e.g., racks and power bays)
11	BellSouth has included in its study. Therefore, the space preparation charges only
12	apply once.
13	
14	Additionally, on page 20, Mr. Furner states that depreciation rates reflect the cost of
15	removing plant (telecommunications equipment). He is correct. Depreciation rates
16	do reflect the cost of removing BellSouth's depreciable equipment. It does not reflec
17	the cost of removing CLEC equipment. Since the tariff only requires the CLEC to
18	remove its equipment (and not BellSouth's equipment), there is no over charge.
19	
20	Q. ON PAGES 20 AND 21, MR. GABEL EXPRESSES CONCERN WITH
21	BELLSOUTH'S APPLICATION OF THE SPACE PREPARATION CHARGE
22	HE BELIEVES THAT BELLSOUTH DISCRIMINATES AGAINST
23	COMPETITORS BY CHARGING THEM FOR SPACE PREPARATION,
24	WHILE NOT INCLUDING THE COSTS OF SPACE PREPARATION IN ITS
25	RETAIL COST STUDIES DO VOU AGREE?

1 A. No. First of all, when a CLEC uses collocation to provision its network, BellSouth 2 incurs specific costs for preparing that collocation space as well as assigning a portion 3 of that building for use only by that collocator. The FCC allows ILECs to recover the 4 cost of collocation. Specifically, as stated above, paragraph 51 of the FCC's 5 Advanced Services Order allows ILECs to recover the costs of preparing collocation 6 space. 7 For BellSouth's retail services, the services range from a voice grade loop which uses 8 9 everything from the main distribution frame to a circuit switch, to a Digital Subscriber 10 Line service, which uses a digital subscriber line access manager ("DSLAM") as well 11 as high capacity services that uses synchronous optical network ("SONET") 12 equipment with speeds ranging from 1.544 megabits to gigabits. Similarly, the CLEC can offer the same type of services depending on the equipment they choose to 13 14 deploy. BellSouth's infrastructure includes central office buildings that house everything from circuit switches to DSLAM and SONET equipment. CLECs 15 16 infrastructure includes buildings it may own and purchased collocation space, again 17 housing similar equipment. BellSouth in its retail offerings recover the costs of its 18 buildings by assigning the cost on a per circuit investment basis. Hence, BellSouth 19 has chosen its methodology for recovering building-related costs from its end users. 20 It should be noted that the price for retail offerings are not set at cost. Similarly, the 21 CLEC can choose to recover its costs from its end users in any method it chooses. 22 The important distinction is that provisioning a circuit out of a DSLAM or switch to an end user does not entail the same costs as providing central office space and its 23 24 preparation for a collocator.

25

1	Q.	DO YOU AGREE WITH MR. GABEL'S RECOMMENDATION FOR
2		BELLSOUTH TO USE VERIZON'S METHODOLOGY FOR ESTIMATING
3		FLOOR SPACE COST?
4		
5	A.	No, I do not. As previously stated, the FCC has found BellSouth's costs for
6		collocation to be TELRIC compliant. Mr. Gabel offers no concrete evidence that
7		BellSouth's costs are not TELRIC compliant. He simply uses a methodology that
8		produces a lower cost, based on the apparent (incorrect) belief that this is what
9		TELRIC requires. To the contrary, the FCC allows for a range of reasonableness for
10		TELRIC pricing. Paragraph 30 in FCC Order 02-260 states:
11		
12		We will, however, reject an application if "basic TELRIC principles are
13		violated or the state commission makes clear errors in factual findings
14		on matters so substantial that the end result falls outside the range that
15		the reasonable application of TELRIC principles would produce." We
16		note that different states may reach different results that are each within
17		the range of what a reasonable application of TELRIC principles would
18		produce.
19		Costs and rates must be developed on a company specific basis as stated previously.
20		For example, BellSouth has approximately 200 central offices in Florida and
21		approximately 130 have collocation. Verizon has fewer central offices and fewer
22		central offices with collocation in Florida. This simple difference between the two
23		companies would have a real impact on the procedures and planning within the state,
24		
25	1 * 7	
		erizon Pennsylvania Section 271 Application Order, CC Docket No. 01-138, 16 FCC Rcd 17419, 17453, a. 55.

1		which would impact the resulting cost estimates. Verizon's methodology of
2		reconstructing all central offices in the state by using the embedded investment
3		(adjusted using the current cost to booked cost factor) divided by the total demand is
4		not a more accurate method than BellSouth's method of looking at situations where
5		building additions have occurred. BellSouth has divided the total cost associated with
6		the recent building additions by the total useable square footage added, and thus
7		reflected the forward-looking cost of floor space.
8		
9	Q.	THE SPACE PREPARTION COST ELEMENT IS DISCUSSED IN MR.
10		TURNER'S TESTIMONY ON PAGES 55 - 57. HE STATES THAT HE HAS A
11		CONCERN WITH THE INVESTMENT NUMBER AND THE ITEMS
12		INCLUDED IN THE STUDY. PLEASE CLARIFY THIS PART OF HIS
13		TESTIMONY AND RESPOND.
14		-
15	A.	Mr. Turner appears to be very confused as to what BellSouth is proposing for the
16		space preparation cost element. BellSouth's space preparation cost elements consist
17		of four elements as stated above. Mr. Turner specifically addresses the space
18		preparation – central office modification element. This element recovers the costs
19		associated with the building design, construction and modification work associated
20		with preparing a central office space for collocation, such as, heating, ventilation, and
21		air conditioning.
22		
23		To develop this forward-looking investment, BellSouth started with final investment
24		data from actual projects over a certain time period. Costs that would not apply on a
25		forward-looking basis, such as barrier walls, were backed out. This data was obtained

1 region-wide due to the limited quantity of projects with final costs. A weighted-2 average of the data from all nine states was taken to produce the forward-looking 3 investment per square foot of \$121.11. 4 5 Mr. Turner is also confused in that that the items he highlighted on page 55, line 22 6 (cage cost set fee, barrier wall, and card reader) were specifically backed out of the 7 study where they may have been included in the actual projects. These items were 8 highlighted on some support papers and Mr. Turner must have assumed that they 9 were included in the study. Therefore, that concern should be resolved. 10 Q. MR. TURNER, ON PAGES 52 – 55, PROPOSES THAT THE CAGE 11 12 PREPARATION COST BE DEVELOPED USING R. S. MEANS. PLEASE 13 RESPOND. 14 15 A. First, it should be noted that the construction of the collocation cage can be done by a certified vendor if the CLEC chooses. There is no requirement that BellSouth 16 17 construct the cage. 18 However, if BellSouth does construct the cage, it should be able to recover its costs. 19 Mr. Turner is basically stating that the investment is not correct because he can find a 20 way to show that a lower investment number can be developed. Again, he states that 21 investment data from R.S. Means should be used because it contains information that 22 is verifiable and can be reviewed. As stated previously, R.S. Means publication 23 simply estimates construction costs based on past construction jobs and at best can 24 only be described as an estimator. 25

1		The investment numbers used by BellSouth for cage construction are based on actual
2		contractor quotes and actual prices from manufacturers. BellSouth simply believes it
3		is better to use actual data rather than manipulate a national average investment.
4		
5	Q	. PLEASE ADDRESS MR. TURNER'S REASON FOR REMOVING THE DUST
6		PARTITION COST (PAGES 54 - 55).
7		•••
8	A.	Mr. Turner supports his position that the dust partition cost should be removed
9		primarily on his observation of Lucent Technologies personnel installing framing
10		equipment. Lucent is not a good choice for comparison, since Lucent is an equipment
11		installers. Equipment installation does not typically create dust. BellSouth uses
12		general contractors to construct cages in Bellsouth central offices. Cage construction
13		does create dust, and therefore, it is appropriate for BellSouth to include the dust
14		partition in its cost study.
15		
16	Q.	MR. TURNER, ON PAGES 49 THROUGH 51, QUESTION THE CABLE
17		RACK CAPACITY USED BY BELLSOUTH IN DEVELOPING THE CABLE
18		SUPPORT STRUCTURE COST FOR FIBER ENTRANCE CABLE. HE
19		STATES THAT THE CAPACITY WAS NOT DONE CORRECTLY AND
20		PRESENTS HIS PROPOSAL. PLEASE RESPOND.
21		
22	A.	Mr. Turner states that BellSouth's proposed capacity of 30 cables is understated, and
23		he proceeds to develop a number that will lower costs by using information from Bell
24		Labs. Mr. Turner does not state when the Bell Labs data was developed. From
25		reviewing the table included in his testimony on page 50 and reading his testimony, it

1	appears Mr. Turner arbitrarily chose a fiber rack size of 12 inches. From there, he
2	used the table to estimate the number of DS1 cables that should be placed in that rack
3	Then he converts the number of DS1 cables to a number of fiber cables using the
4	assumption that three DS1 cables equal one fiber cable in diameter.
5	
6	Mr. Turner's process starts with an arbitrary assumption of the cable rack size and
7	ends with an assumption that 3 DS1 cables equal one fiber cable. His analysis is not
8	representative of the size racks BellSouth would use or BellSouth's procedures for
9	placing fiber cable in racks.
10	
11	BellSouth developed the fiber entrance cable support structure costs based on the
12	following assumptions:
13	 Collocator private entrance cable rack is a 5 inch width rack
14	• BellSouth standards for maximum pile-up height on a 5 inch rack is 5 inches.
15	• The quantity and size of riser cables is at the discretion of the collocator;
16	BellSouth's assumption was an average riser cable diameter of approximately .75
17	inches.
18	Cable racks are equipped with cable retaining brackets and cables are run
19	unsecured
20	 Physical fill of rack is estimated at 70% of theoretical maximum or approximately
21	30 riser cables.
22	
23	Therefore, BellSouth cable rack capacity is based on BellSouth's standards and the
24	actual cable racking used. BellSouth does utilize a systematic approach for
25	determining the capacity of cable racks. Mr. Turner's proposal should be rejected.

1	Q.	MR. TURNER STATES (PAGES 51 AND 52) THAT BELLSOUTH SHOULD
2		USE THE SAME FILL FACTOR IT USES FOR ITS FRAME EQUIPMENT IN
3		THE POT FRAME COST STUDY. DO YOU AGREE?
4		
5	A.	No. The Point of Termination ("POT") bay/frame was initially a required termination
6		arrangement for CLECs collocating in BellSouth's central office. As a result of FCC
7		orders, BellSouth does not require CLECs to use this termination and it is totally
8		optional. In fact, it has not been offered by BellSouth as a required termination point
9		since 1999. The only CLECs that continue to receive charges for this item are the
10		ones that happen to have older Agreements containing that rate element. This is
11		essentially a grandfathered offering.
12		
13		For the reason stated above, BellSouth does not treat POT frame termination the same
14		as its frame terminations (e.g., the 2-wire terminations on the main distribution frame
15		("MDF")) that are used by BellSouth's customers and the CLECs. The POT frame
16		terminations are only used by a CLEC that continues to have the grandfathered option
17		in its Agreement. At some point in time, there will be no new terminations on these
18		frames.
19		
20	Q.	DOES THIS CONCLUDE YOUR TESTIMONY?
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22	A.	Yes.
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BY MS. WHITE:

Q Mr. Shell, could you please give your summary for the record?

A Yes. Thank you. Good morning, Commissioners. The purpose of my testimony is to describe the development of the costs associated with collocation and to respond to statements made by witnesses representing AT&T and the Florida Commission staff regarding BellSouth's collocation elements.

The collocation elements studied by BellSouth can be grouped into four categories: Physical collocation, virtual collocation, adjacent collocation, remote terminal collocation. In addition, BellSouth filed Assembly Point, which is an alternative to collocation. These collocation elements are the ones BellSouth needs to provision the various types of collocation pursuant to FCC orders and based on customer requests.

BellSouth used the same cost methodology previously approved by this Commission in its orders in Docket Number 990649-TP. Additionally, BellSouth has made the applicable adjustments from that docket. For example, BellSouth is using the ordered cost of capital and depreciation rates. However, since this is a new proceeding and the study period is 2003 to 2005, other factors and loadings have been updated to reflect the latest available inputs.

BellSouth's cost studies adhere to TELRIC pricing

1 rules that reflect forward-looking economic costs. Before 2 specifically addressing the cost studies, I will address 3 Mr. Turner's statement regarding a single cost model. 4 BellSouth does not support the use of a single cost model. 5 Mr. Turner assumes that varying cost results between ILECs 6 means that the cost studies do not adhere to the TELRIC 7 guidelines. He uses this incorrect assumption to support the 8 need for a single model. However, what's most important is 9 that Mr. Turner does not seem to realize that the model used to 10 complete a cost study is not considered a cost driver. It is 11 just a tool that accepts inputs, makes the appropriate 12 calculations, and produces the outputs. Cost drivers are 13 things such as assumptions used, input data that are based on 14 the company's network plans and operating procedures. 15 inputs and assumptions are not going to change just because the 16 ILECs use the same model.

Additionally, his statement that a single cost model can readily be used by all three ILECs is not true. It would cost more and require more time to perform studies if all three ILECs were required to use a single model. Simply put, Mr. Turner's proposal for a single model would cause the ILECs to spend more time, incur more costs with no real effect on the resulting cost numbers.

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Mr. Turner and Mr. Curry both express concerns with BellSouth's development of the DC power costs. Their primary

concern seems to be that the study does not comply with TELRIC pricing rules. However, the FCC has specifically allowed the ILECs to recover the costs of central office modifications or site preparation, including power augments, to meet collocators needs. Paragraph 51 of the FCC's Advanced Services Order clearly allows the ILECs to recover such costs.

Since the FCC established the TELRIC principles, it presumably would not have allowed the ILECs to recover this cost if doing so conflicted with TELRIC principles. Moreover, in approving BellSouth's applications for any region interLATA authority, the FCC concluded that BellSouth provides collocation based on TELRIC principles.

Mr. Gabel has concerns with several of BellSouth's cost elements as well. It appears that he is assuming that TELRIC principles require that the appropriate cost or rate should be the lowest of all three ILECs. For example, he seems to take this position with the application fee and the subsequent engineering firm order processing and floor space. However, it is BellSouth's position, consistent with Paragraph 685 of the FCC's report, First Report and Order, that a benchmark of forward-looking costs and existing network design most closely represents the incremental costs that a specific ILEC actually expects to incur. As such, BellSouth has developed forward-looking costs based on real word actual BellSouth inputs. Thank you. That concludes my summary.

MS. WHITE: Mr. Shell is available for 1 2 cross-examination. CHAIRMAN BAEZ: I'm assuming no friendly cross. 3 4 Okay. Mr. Kassman, we'll start with you. 5 MR. KASSMAN: FDN has no questions. 6 CHAIRMAN BAEZ: Okay. Mr. Hatch. 7 MR. HATCH: (Inaudible. Microphone off.) 8 CHAIRMAN BAEZ: All right. 9 CROSS EXAMINATION BY MR. WATKINS: 10 Good morning, Mr. Shell. 11 Q 12 Α Good morning. Mr. Hatch has an exhibit that I'm going to use in my 13 0 14 extremely brief cross-examination of you today. First, my name 15 is Gene Watkins; I'm with Covad Communications. Good morning. 16 Α Good morning. 17 MR. WATKINS: To Commissioner Jaber, I apologize for 18 not having this in front of you. COMMISSIONER JABER: No, that's quite all right. 19 I'll have it by the end of the day. 20 21 MR. WATKINS: This will be used tomorrow as well with Ms. Ellis. Just for purposes of the record, I'd like to mark 22 this as Shell, Covad-1. I've asked Mr. Shell's counsel whether 23 they will stipulate to the accuracy of the inputs to this chart 24 25 for total monthly recurring charge, power percentage,

	302
1	maintenance percentage, and infrastructure percentage for the
2	current and proposed monthly recurring charges. Will
3	BellSouth's counsel stipulate to that, so I don't have to hand
4	him the discovery responses from which it came and go through
5	that?
6	MR. CARVER: Yes, with a qualification. We have gone
7	through the chart, and the dollar amounts and the percentages
8	appear to be an accurate reflection of what was contained in
9	our discovery, so we think that that's been accurately depicted
10	on the chart.
11	I would note, though, that one column is
12	infrastructure NRC, which is the number that we provided if the
13	Commission ordered us to constitute the charge that way, so I'm
14	reserving an objection on that. But what's listed in the chart
15	does appear accurate.
16	CHAIRMAN BAEZ: As accurate. Thank you, Mr. Carver.
17	And. Mr. Watkins, just for identification purposes, we're going

CHAIRMAN BAEZ: As accurate. Thank you, Mr. Carver. And, Mr. Watkins, just for identification purposes, we're going to identify this confidential exhibit as Confidential Exhibit Number 38, and that will be identified as Shell, Covad-1.

MR. WATKINS: Okay.

(Exhibit 38 marked for identification.)

BY MR. WATKINS:

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Q Mr. Shell, in looking at this chart, the one thing that leaps out is that far right-hand column, and that is if one assumes that BellSouth's infrastructure costs are -- and,

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Mr. Carver, the number in that infrastructure NRC column is not confidential, is that correct, for BellSouth?

MR. CARVER: That's correct.

0 That the \$648.35 in that column, if we assume that that is the infrastructure cost that the monthly recurring charge is ultimately going to attempt to recover, that BellSouth using the infrastructure percentage provided in response to our discovery would recover that total infrastructure charge in about 154 months; is that correct?

Α No, it's not correct. I think you stated this is the infrastructure cost that the monthly recurring charge will attempt to recover, and that's the part that we don't agree with. I'm not sure if the mike -- can you hear me okay? I'll get real close.

The distinction is, is that this is an investment which means it's a capitalized item. It's not a function where you have a person go out into the field to install a piece of equipment and as a result you have 30 minutes times the labor rate and that's a one-time cost. What you have is a piece of equipment that BellSouth incurs per part 32 of the accounting rules. We incur depreciation, maintenance, on-going operation expenses, income taxes, ad valorem. As long as this piece of equipment is in our infrastructure in our accounting base, we will incur these costs. So BellSouth's position is once you have a capitalized piece of equipment, recurring charges are

appropriate to recover that.

And what we have done in this estimate here is we approximated what -- if you want to back that recurring charge to a one-time charge. But there are a lot of assumptions and a lot of questions on how would you implement that. For example, do you -- this was backed up based on the approximate life of the equipment. Once that's done, does that mean at the end of the life the equipment the party would have to pay again because the equipment -- if the equipment after 12 years, 13 years is no longer valid, would they pay BellSouth another \$648? And that's what the recurring charge alleviates. It allows you to recover those costs that would properly be accounted for in our books pursuant to part 32 of the rules.

Q Now, Mr. Shell, you incur certain costs, and those are capitalized or depreciated over a period of time. And it's that depreciation life that's the life of those various elements that make up the infrastructure that's provided when somebody says, I want an amp of power, that is depreciated over a period of time. Do you believe -- is that correct?

A You're correct that equipment is depreciated, but what we're costing out is the service, not the equipment. As long as the service is provided, BellSouth has to maintain that equipment. And after year 13, we're not going to just stop providing service throughout that time period and subsequent -- and after that period we will be replacing parts, adding parts,

updating the equipment. Essentially, over some point in time we will have replaced the whole item. So therefore, the continuing recurring costs are appropriate because you're never going -- as long as the service is offered, you will have costs associated with it.

Q And you may be misconstruing where I'm going with this. Just for the sake of the Commission, I want to make sure it's all clear. This is not proposing a nonrecurring charge for infrastructure. I'm trying to get at why BellSouth's total monthly recurring charge is significantly less than Verizon's and Sprint's.

So what I'm trying to understand is, if BellSouth and Verizon provided us with two roughly equivalent infrastructure nonrecurring charges and identified the percentage of the monthly recurring charge proposed by those parties in this proceeding and when you compare how long it will take that infrastructure charge to be fully recovered, you get a very widely different outcome. Do you have an opinion as to why that might be?

A No, I really couldn't guess as to why, you know, the equipment cost is greater for them. I think as all of the ILECs have stated in this proceeding, it all depends on the agreements that the particular ILEC has with the vendors for equipment and that those agreements change. So their particular costs could be greater for a battery than

1	BellSouth's. I don't know. The infrastructure costs, you'd
2	have to ask them as to why their costs are greater for a
3	certain piece of equipment.
4	Q If their cost was significantly greater and that was
5	the cause of the disparity, why wouldn't the infrastructure
6	nonrecurring charge submitted by Verizon be that much more
7	different than the one submitted by BellSouth?
8	A I couldn't guess.
9	Q Could it be the twelve-and-three-quarter years
10	representing the total time total time to compensate
11	BellSouth for its infrastructure charge reflects the total
12	average depreciation rate applied to those to that equipment
13	by BellSouth in its model?
14	A I'm not sure what your I think to answer your
15	question, BellSouth does use 13 years for the 377C account,
16	which is to predominately account for the power equipment which
17	is used predominantly for the switches. So that is our life,
18	if that's your question. I'm not sure if I answered it.
19	Q It is.
20	A Okay.
21	MR. WATKINS: That's all I have for Mr. Shell.
22	CHAIRMAN BAEZ: Mr. Hatch, did I understand you
23	correctly? You were deferring in total or okay. Go ahead.
24	CROSS EXAMINATION
25	BY MR. EARLY:

Q Good morning, Mr. Shell. My name is Gary Early; I represent AT&T.

A Good morning.

Q I've got a few questions for you, and I think primarily they are going to be related to power issues, but let me kind of get some general questions out of the way. I've gone through your direct testimony and looked at your qualifications, and I had a couple of questions I wanted to ask you about. You indicated that when you first started with BellSouth you started as an equipment engineer; is that correct?

A That's correct.

Q What did you do in that capacity? What were your general functions?

A Primarily, and it's been a long time ago, but I ordered equipment for the central office primarily. Initially, I worked with the power equipment and operations support equipment for the -- I think it was called the switching control center system time equipment at the time.

Q Were you responsible for determining what kind of equipment would be placed into a central office or into one of these locations?

A No, no, I was not specifically responsible for that. The way BellSouth is structured -- and I can't remember now if it is network design. We have such a -- I think it's network

design may have that final call. The information flows down to the various groups, and then the equipment engineering group would actually place the orders with the vendors for the equipment and make sure that it's installed appropriately.

Q Okay. So you'd get a list from the design group and you would then implement?

A Yes. And we have to understand what we're doing because, you know, ultimately we fill out what's called an authorization form to get it approved by our senior management. We have to be able to support the reasonableness of the spending of the -- you know, outflow of the money. So we would have to understand, but we did not create the forecast or determine what's required.

Q Okay. When you were determining what kind of equipment was to be ordered, and we're going to limit this to power equipment, were you responsible for determining when a power augment might be necessary at a particular location?

A No.

Q After your responsibilities as an equipment engineer ended, I believe you went to work in the rates, costs, and tariffs section?

A That's correct.

Q What did you do in that capacity? If you could just briefly describe what your duties were there.

A I did a lot of different things. I worked with again

the rates of the tariff group, dealing with a myriad of services from local exchange service charges, inside wire, operator services, directory assistance, mobile interconnection, wireless. Primarily what I did in that function was to work on product teams where they design services, modifications to services.

And as it turned out that they needed to add or modify the tariff or -- in other words, because BellSouth is regulated, we can't do anything without tariffs. So if a product manager came up with an innovative idea or a new approach, we would have to be the ultimate party that would put that in the tariff form and file it with the Commission and support it with our state regulatory contact. So we had to get familiarity with the service requirements as well as the cost support and the rates that supported the service.

- Q And your duties in that section, that was prior to the Telecom Act of '96; correct?
 - A I believe so, yes.

Q Okay. Were you responsible for the development of rates?

A I was not -- some cases I did do some of the development of the rate. It just depends on which of the services I was working on at the time. It depends on the service.

Q How would you go about developing a rate for a

particular service? And you can kind of pick an example, you
know, as you see fit.

A Well, I mean, for basic service, not basic, but a nonbasic, rather than get that terminology mixed up, a service that's discretionary, BellSouth will look at its costs first and then determine based on the cost what is the appropriate price for the market, that that would be either priced others are offering or the price that we feel is one that provides sufficient contribution.

Q And you were responsible for performing that calculation?

A Not as a whole, but in some cases I did that. But that was not my primary function. But in some cases we had to provide a lot of support. Our job was interfaced with the cost group and determined what the costs were and make sure the product managers are pricing -- that were looking at the prices for their products knew what was reasonable and what we felt like we could support with the state regulatory groups. Our job was interfaced with state regulatory with the state tariffs that will be filed and so forth.

Q Okay. As I understand it, in 1995 you went to the interconnection marketing unit and among those duties you developed pricing strategies. Can you describe to me what goes into developing a pricing strategy in the context of the interconnection marketing unit?

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A Well, interconnection was established to look mainly at, like, the wholesale services like access services, wireless interconnection, independent telephone companies. One of the things we looked at while I was there was, you know, pricing for competitive services.

I don't want to really go into a lot of details, but we looked at competitive services and determined what various competitors were offering, what our offerings were, what our current costs were, what we felt like market data -- and we did try to get market data to show what -- the customer's willingness to pay would be; and try to develop a strategy that says, this is the price in this market, this is the price that this party is offering, this is what BellSouth is offering, this is the cost, what would the customer be willing to pay; and try to do a demand analysis associated with that to determine price points that would yield revenue, the most revenue, but also ensure that the customer will be willing to pay it.

I mean, we looked at a lot of different services, but I really don't want to go into a lot of detail on specific services.

- Q Sure. Okay. And you're currently in the finance department with BellSouth; correct?
 - A That's correct.
 - Q Okay. As an employee in the finance department, are

you involved in cost methodology development?

A I'm involved with assisting the cost analysts that actually do the day-to-day cost studies with ensuring that, you know, they are doing it appropriately pursuant to TSLRIC or TELRIC rules and make sure that to the extent the Commission has made a decision, that any subsequent rates done pursuant to internal customer requests abide by those factors and those items that have been ordered. And we meet occasionally to discuss the proper approach on new offerings and so forth. So we do work to -- not so much the details of what they do but to make sure it's consistent with what's been ordered.

Q So is your role then primarily in an oversight capacity with these cost individuals?

A Yes.

Q And are you also in a regulatory capacity to determine compliance with the various states' regulatory commission orders?

A No, no. I'm not in regulatory. Like I said, my function is to ensure I understand what's happening in regulatory and interface within the cost group on the regulatory issues, but not in regulatory.

Q Okay. Were you responsible for the development of the BellSouth cost study that's being used in this proceeding?

A I was -- again, had oversight and worked with the person in the group that did it, but I did not do it

1 personally.

Q What group was responsible for the development of that study?

- A When you say, "What group" --
- Q Well, you said that you were in an oversight capacity for the individual and the group that was responsible for the development of the BellSouth study.

A The way we're structured, we have a group that's called service-specific costs which has a director over that group. Then there's my group and there's a director over my group for economic analysis support. And then there's another group that would do fundamental studies with the director over it and so forth. The group that has -- the service-specific costs was the group that would have done this one as well as other service-specific costs and also UNE-specific costs.

Q Did you -- as the model was being developed, were you responsible for providing the inputs into the model, into the calculations that were ultimately used?

A When you say, "The model was being developed," you mean the use of the model?

Q Yes.

A Okay. I worked with the person -- as you know, we've been doing collocation cost studies for some time. So what we did, we did look at what we've used before, and we looked at whether it was still appropriate to use it going forward. And

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we discussed most of them -- I can't say we looked at all of the elements for this particular filing, but we did look at several to make sure that this filing was the most current one.

What elements -- and when you say you kind of looked at the elements to make sure that they were most current, what elements did you look at?

Α I mean, for example, space development report, we looked at that one. We did have some requests for that one. To my knowledge, we only had maybe five in all the region, but based on actually having some requests, we modified the inputs for that one. And we looked at the -- we looked at the power study. We said that was still valid. We looked at several of the studies. As far as the major ones, we looked at floor space, and we just kind of looked generally for consistency. We tried to see if there's anything that has changed in the collocation process or input data that we could see that should be changed as a result of this filing, which again was February of last year. So it would have been, like, the end of 2002 when we were doing this.

Are you familiar enough with the cost study to be able to testify if I were to ask you particular questions about some of the inputs that would have been used in the study? Are you familiar enough with it to be able to testify as to what those inputs might have been and how they were considered?

Yes, I've looked at the -- pretty much almost all the Α

numbers that go into it. No, I couldn't say that every single input I can give you a definitive answer on, but I have looked at it. And I can -- I believe, pretty sure, for most of them I could.

Q Okay. Among the documents that were produced, there was a document that was identified and introduced into evidence today as BST Confidential Stipulation-1. It's staff Exhibit 22. And it was a series of responses to a request for a production of documents. And they were -- the title of the documents is "Power Construction Prorate Tool." Are those some of the documents that you looked at as you were analyzing the inputs as to whether they might be appropriate for the cost study?

MS. WHITE: I'm going to object to that on the basis that if you're going to ask him, I'd like him to at least have the document in front of him because there's so many documents here I want to make sure --

MR. EARLY: Can I give him one as an example?

MS. WHITE: Sure.

MR. EARLY: I'll tell you what. I'm kind of new to this and everything is in red folders and it's all confidential. So I think we'll just deal with it when it comes up in the testimony, and you can tell me then whether it's something that you considered. I think it's easier probably to do that than to try to pull out one example and deal with it.

BY MR. EARLY:

Q Let me ask you -- I want to go through a couple of definitions so that we kind of are reading off the same page and get your view on what some terms mean to you as we go through this testimony. So if you could just tell me what these terms mean to you when you're considering them in terms of the cost study. What is an embedded cost?

A Embedded costs are costs that have occurred from a historical perspective and that you have accounted for as already having occurred.

- Q So those are past costs that have been expended for some location?
 - A Correct.
 - Q What is a prospective cost?
 - A Prospective is forward looking.
 - Q Okay. And what does the term "capacity cost" mean?

A Capacity cost is where you look at a piece of equipment, say, a facility DS1 with 24 channels, and rather than figuring out, you know, how many DS1s, you may say, well, what's the capacity of a DS1? You may assume that the most you could get is 21 for whatever reason on that, so your capacity cost would be based on 21 over 24 or some relationship that says it will hold 24 but 21 is the maximum amount that you'll ever use for whatever reason, growth or maintenance or for just the way it's ordered. So capacity cost is based on the cost

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that you expect to incur based on not being able to have a complete 100 percent utilization of the facility.

I've been kind of given the example of a 0 ten-passenger van, and you're, you know, likely -- when you're running a ten-passenger van, the likelihood vou're ever going to have ten people in it all at the same is pretty slim, so you kind of calculate your cost based on having nine people in it. Is that a fair analogy?

Α Yeah.

Okay. Is the concept of capacity cost, is that what 0 you look at to determine each individual user's cost of using that asset?

Α I'm not sure I followed that question. I'm not sure when you say, "Each individual user's cost of using that asset" --

Okay. Well, you have a capacity cost. Is that an 0 analysis of an asset that might be shared by more than one company or individual?

It could be used by more than one company, yes. Α

And so in determining what any one user is going to 0 be charged for the use of that asset, is that how you -- is the capacity cost a function of determining what the charge to that user is going to be?

A function of the charge? The capacity cost wouldn't be a function of the charge. It would be a function of what

your projected utilization of that piece of equipment is, and you take into account all users of it. It wouldn't really necessarily impact the charge. It would just be utilization of all the parties. I'm not sure if I understood your question.

Q Okay.

- A Okay.
- Q One of the terms that is used, you know, obviously quite a bit in this context is long-run incremental cost, LRIC. What is that? If you could kind of just tell me what that means to you.

A Long-run incremental cost is just -- it's the cost on the long run which means a long enough time period for all costs to be variable, and incremental, incremental cost of providing that new function or that additional product, just that incremental cost over a long enough time period where all costs are variable. And it does not include any shared costs, just all direct and no fixed costs.

Q So the incremental part of that, is that the cost of providing -- starting from your baseline and providing one extra amp -- let's do it in amp since we're talking about power -- the cost of providing one additional amp at a location?

A Yes, that's correct. It depends on what you define as your cost object or your study. If your study is looking at the cost of one additional amp, then your incremental cost

would be that cost required to add that one additional amp, yes.

Q Now, another term that's used quite a bit is "total element long-run incremental cost," TELRIC. What does the total element part of that mean to you, the term the "total element"?

A Yeah, total element came about as a result obviously of the Telecom Act when the FCC established this way of pricing unbundled network elements as opposed to services, which LRIC and TSLRIC does. TELRIC is for elements. And so the total element long-run came in as a result of that because they said the cost object now is not the service but it's the element. So you look at the total cost of the element, not by service and divide it by the total projected demand.

Q Now, total projected demand, is that the number of potential users?

A Yeah, whatever the units would be for that. It depends on your units.

Q So in terms of power, you would be looking at the use of that power. If you do a power augment, you would be looking at potentially how many CLECs might ultimately take advantage of that power, might draw power from that augment?

A You'd have to look at your amps. I mean, the units there would have to be amps, not necessarily number of CLECs.

Q Okay. In the term "total element," does it

incorporate an analysis of the number of users that might use 1 2 that element? 3 No. no. Again, you project your demand based on what Α you believe the users of that element will be, their demand, 4 but you don't necessarily look at the users. It's totally 5 6 based on whatever the units are, whether it's amps or whatever. 7 It's the amount of usage that you expect. It really does not 8 relate to the users. 9 0 Okay. So it doesn't matter who uses it? 10 No. Α Okav. It could be a CLEC. it could be BellSouth, it 11 0 could be a combination of the two? 12 13 Correct. Α Now, TELRIC, is that only forward looking? 14 0 15 Yes. TELRIC is forward looking. Α Under TELRIC, is there an obligation to utilize --16 0 17 when you're looking forward and trying to measure the costs that are going to be put into something, are you looking at the 18 most efficient technology that's available now? 19 20 Yes. You look at the technology that you can reasonably expect to have in your network over that period of 21 22 time, yes. 23 0 And I believe you said that the cost study in this 24 case was 2003 to 2005, that was what you were looking at?

That was the study period, yes.

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Okay. So you're looking at technology that would be Q available in 2003 to 2005?

Well, we primarily look at technology beyond that Α period. The study period allows us to average the data inputs and so forth for demand numbers through a weighted average, but we do look at investment -- technology beyond that time period. We look at what we reasonably can see in the next few years, not just limited to just those three.

Let me kind of focus now on the cost study. As I understand it, the input in terms of power for the development of that cost study was contained in Section H.1.8; is that correct?

That is where we had the cost per fused amp, that's Α correct.

Now, has that -- well, as I understand the 0 first phase of this proceeding, there was a determination made that power was going to be measured by amps used rather than fused. Has the -- has Section H.1.8 been modified or changed in any way since August of 2003?

What BellSouth had done up front when we filed our study, we filed a couple of elements, one being power, to provide the Commission with the number just in case they chose to go that -- and that element H.1.7.1 is already there, and it's based on a cost per used amp.

Q Is that contained in your Exhibit WBS-3?

1	Α	WBS-2.
2		MR. EARLY: Let me show you WBS-3 is not
3	confident	ial; correct?
4		MS. WHITE: No, it's not.
5	BY MR. EA	RLY:
6	Q	Mr. Hatch is going to hand you a document that was
7	contained	in your direct testimony as WBS-3, and it contains a
8	number of	cost elements. Are these accurate descriptions
9	generally	of the elements that were used in the development of
10	the study	?
11	A	Yes.
12	Q	So H.1.8 on Page 1 is power per fused amp?
13	А	That's correct.
14	Q	Okay. And which section was power per amp used?
15	А	It's H.1.7.1.
16	Q	Okay. Power per used amp.
17		So these constitute independent elements. As you're
18	developing this study, these and, I guess, H.1.8 and	
19	H.1.7.1 w	ere inputs into the model?
20	A	They were inputs that went into the model to create
21	H.1.7.1,	yes, if that's what you're saying. Yes.
22	Q	Okay. And then these were incorporated the data
23	that came	out of that was then incorporated into the cost
24	study?	
25	А	Yes. The cost output of you know, based on inputs

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that were included in the Cost Calculator, it produced the outputs of H.1.8 and also H.1.7.1.

With regard to both H.1.8 and H.1.7.1, are you 0 familiar with how those elements of the cost study were developed?

Α Yes.

0 Can you describe it?

BellSouth -- well, as I'm sure you know, BellSouth began with looking at augments, actual power construction jobs that have occurred in our central offices. We gathered approximately 711 of those across the region and determined an average construction cost per amp. And that number was inserted into the Cost Calculator to produce the monthly recurring costs associated with that capitalized investment.

And you performed this analysis -- when you were 0 determining the per amp charge, was that an embedded analysis or a prospective analysis?

We considered it to be a prospective analysis because these costs -- what we were looking at was looking at what had occurred in the most recent time period. And given that our rates and costs were going to be the same, we projected that that would be the costs we would incur on a forward-looking basis. We didn't see any changes in the actual costs associated with doing a collocation augmentation from what we were seeing in today's environment.

1	Q Over what period of time were these power augment	
2	jobs? What period of time did they occur?	
3	A Late '99, early 2000.	
4	Q You didn't have any jobs that were as far back as	
5	1997?	
6	A No.	
7	Q Okay. And it was BellSouth's view that the costs f	or
8	performing a power augment would not have changed from 1999,	
9	2000 to the present time?	
١٥ ا	A No, not going into this study, filing this study.	We
11	didn't believe that it would have changed, that's correct.	
12	Q Are the costs associated with performing a power	
13	augment pretty standard?	
14	A Yes. The cost study was based on having a vendor	
15	contract price that was regional. You know, while, obviously	,
16	equipment costs would vary, but the cost was regional and	
17	standard. So, yeah. To answer your question, yes.	
18	Q Do you use a single vendor over the entire nine-sta	te
19	region?	
20	A Yes, we do.	
21	Q Why would the equipment cost vary? I mean, if you'	re
22	using a well, we may have should have gone through this	
23	earlier, but as I understand it, a central office will have	
24	power coming in. There will be a bank of rectifiers that wil	1
25	change the AC power to DC power. It will run through the	

1 batteries and then into whatever piece of equipment you're 2 using. I mean, is that kind of a really unbelievably 3 simplified view of it? 4 You did a good job with that. 5 Okay. So if you have a 200-amp rectifier, is there 6 going to be a difference in the cost of that rectifier if you 7 buy it for a job in Tallahassee, Florida, as opposed to a job 8 in Atlanta, Georgia? 9 No, no. What I was referring to was the difference 10 between the rectifier versus a battery. 11 Q Okay. 12 Α Some power augment jobs may require batteries, some 13 may require rectifiers. It just depends on the equipment. 14 Q Okay. Do the rectifiers come in different sizes --15 They do. Α 16 Q -- or is there kind of a standard? 17 Α No, they come in different sizes. 18 Okay. In your view, are the costs that were expended 0 19 in the '99 to 2000 period that you discussed, there wasn't any 20 necessity to add -- to factor those into current values, use 21 those costs as they came off the piece of paper? 22 Α No, no. Again, we projected that those would be the 23 same costs that would occur going forward. 24 0 How would you -- between, let's say, 1999 and the

present, how would you account for any changes -- or how did

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you account for any changes in technology?

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Well, for collocation, it's -- you know, we were talking in general on TELRIC before. And you could do that in general for UNEs, unbundled network elements, because you have a lot of different things going on providing services where you use unbundled elements. Like the digital loop carrier equipment could be universal versus integrated versus next generation, you could have, you know, the terminology like GR303 versus other things; you have switched types that vary.

When you come to collocation, there's not really a whole lot of technology that you're talking about. You're talking about cable racks, aisle framing, aisle lighting. You're talking about cages. I mean, it's not a lot of high tech equipment where you would expect forward looking to have major changes in the equipment used. A battery will be a battery tomorrow. It may be a little different, but, I mean, as far as collocation, that really doesn't -- didn't really impact us a lot when you're looking at collocation.

0 Might there be changes in the efficiency of a particular piece of equipment? While you might use a rectifier, does the efficiency rating for a rectifier change over time? Do they become more efficient?

Α Is your question --

Q Not as they are installed do they become -- but as they are manufactured, is a rectifier manufactured in 1997 less efficient than a rectifier manufactured in 2004?

A I really don't know. I'm not that technical to know exactly if the rectifiers in today's environment are significantly better or worse. It depends on what the criteria is for the party developing the equipment. You know, the criteria could be something totally different from just an efficiency portion.

Q Well, in the BellSouth cost study, BellSouth has applied an 85 percent efficiency rating for the rectifiers.

Now, as I understand it, when power comes into -- the AC power comes into this rectifier as it's converted to DC power and flows out the other side, there's a loss in that equation; is that accurate?

A That's correct. And that does vary between the type of equipment that you have, the different vendors of rectifiers could cause that to be different, the load on it, the age of the equipment could cause it to vary. There are significant things. BellSouth uses 85 percent because that was what at the time Bell Telcordia was using in their studies, and we felt like it was reasonable and we have seen it used in other dockets as well. In fact, I think it was in Mr. Turner's exhibit that was used in Southwestern Bell, they use 85 percent as well.

Q Okay. Do you know when the Telcordia study was performed?

- A Not off the top of my head, I don't, no.
- Q So this 85 percent efficiency rating for a rectifier that's used, that means when an amp of AC power comes into that rectifier .85 of an amp of DC power is going to come out?
 - A That's correct.
- Q Okay. So there's a loss in there of 15 percent of an amp?
 - A Yeah, that's pretty much correct.
- Q Okay. Does BellSouth ever use equipment from Tyco? Is Tyco a pretty reputable brand of equipment? Do they provide a pretty standard rectifier?
- A I'm really not going to be able to answer that. I don't know the type of equipment.
- Q Okay. Under TELRIC, isn't there an obligation that you basically -- I think you testified that you basically use the most efficient equipment that's available at the time you perform your study; isn't that correct?
- A I said that you'd use the most efficient equipment that's reasonably projected to be available in the time period, yes. And again, I don't know what equipment that is currently being used, but again, the efficiency varies between the type you have and the length of time that the equipment is in effect, as well as the amount of power on it.
- Q Okay. Mr. Hatch is going to hand you a document that was incorporated as an attachment to AT&T's response to

1	requests for production of Document Number 8 and these are		
2	specifications, a couple of specification pages. The		
3	first page is headed, "Tyco Electronics," as well as the second		
4	page and the third page. If you look at the bottom, it's for		
5	equipment from RELTEC Corporation. Now, do these documents		
6	are these specification sheets for rectifiers constructed and		
7	available from Tyco Electronics lineage and RELTEC Corporation?		
8	MS. WHITE: I'm going to object because I don't		
9	understand how Mr. Shell could know that when it was handed out		
10	by Mr. Early. And, I mean, it says what it says. I don't		
11	think Mr. Shell doesn't work for Tyco or Electel I'm		
12	sorry, RELTEC.		
13	MR. EARLY: Can I ask another question?		
14	CHAIRMAN BAEZ: Do you want to ask a clarifying		
15	question, or do you want to respond to Ms. White's		
16	MR. EARLY: Well, I'll like to ask a clarifying		
17	question of Mr. Shell and then that may take care of		
18	CHAIRMAN BAEZ: We'll hold your objection.		
19	BY MR. EARLY:		
20	Q Mr. Shell, you have worked as an electrical engineer;		
21	correct?		
22	A I've worked as an equipment engineer.		
23	Q In your direct testimony, didn't you indicate that		
24	you received your Bachelor of Science degree in electrical		

engineering and worked as an equipment engineer at BellSouth?

A Right.

Q Have you ever seen specification sheets like this before?

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A I may have sporadically, but it's probably been years since I've looked at -- you know, I look at them maybe off and on, but I don't use them on a day-to-day basis. So while I can read this, I'm not an expert on it. My only point on this is that I'm assuming this is a document that RELTEC produced, and, you know, I guess, like counsel said, this is what it says what it says, but I can't add anything more to it.

MR. EARLY: Okay. Well, if he could just comment then on what it says without providing any information as to its ultimate validity. I understand he didn't generate this document, but if he could just comment upon the --

CHAIRMAN BAEZ: You're going to ask him to read off the document?

MR. EARLY: Yeah.

MS. WHITE: I'm going to maybe change my objection as well as maintain it. I mean, he's asking Mr. Shell to accept the veracity and validity of these documents and there's no foundation. I don't know where these documents came from. I don't know if they were printed out on somebody's PC or if they were -- you know, actually came from a Tyco or RELTEC -- I'm never going to get that name right, RELTEC document.

CHAIRMAN BAEZ: You got it. You got it right.

MS. WHITE: So. I mean. there's no foundation. 1 2 There's no -- I'm not going to agree that Mr. Shell can accept 3 the validity of these documents without a foundation. 4 CHAIRMAN BAEZ: Mr. Early, are you going to lay a 5 foundation for us? 6 MR. EARLY: Well, these were produced by AT&T in our 7 discovery responses, and they have been incorporated into staff's exhibits. So they are in the record in this 8 9 proceeding. Although they may on their face be hearsay, I 10 believe that he's certainly capable of commenting on --CHAIRMAN BAEZ: Well, now, you said earlier that you 11 12 are going to ask him essentially to read off the document. 13 We've established that he doesn't know what this document is. 14 MR. EARLY: Well, I'm going to ask him to assume that 15 that efficiency rating is accurate, and if it is, does that 16 affect the numbers that go into the cost study. 17 CHAIRMAN BAEZ: I'll let him go forward. Ms. White, 18 it is part of a stipulated exhibit. BY MR. EARLY: 19 Mr. Shell, on the first page of this exhibit, which 20 0 is for a J85503C-3 rectifier, what does that show in terms of 21 22 the efficiency rating of that rectifier? 23 If this is what you're referring to, the middle of Α the page, it has efficiency, 92 percent typical with a Note 2 24

that says measured at 54 volts under full load.

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CHAIRMAN BAEZ: Mr. Shell, can you speak directly into the mike? We can't hear you.

THE WITNESS: Okay. I'll repeat my response. The middle of the page, it says, efficiency 92 percent typical and it has Note 2, and Note 2 says measured at 54 volts under full load. Again, not knowing the document -- but I do know that the efficiency does vary depending on the load. It depends on the type and the length of time it's in service. But this does say 92 percent.

BY MR. EARLY:

Q And on the final page with the RELTEC document, what does that show in terms of efficiency of that rectifier? And if I could just have you, I guess, really more concentrate on the 200-amp rectifier as opposed to the 400-amp rectifier.

A The 200-amp shows 90.1 percent.

Q Now, if those are accurate, I want you to -- assuming that those are accurate numbers and that the efficiency of these rectifiers is at that level, would that serve to change the efficiency rating for rectifiers that are contained in the BellSouth cost study?

A Well, I guess hypothetically if that was true, then BellSouth would need to first verify that it's true and then determine, you know, which ones -- well, again, it's depending on what our vendor -- our vendor again -- we have one vendor throughout the region. It depends on which ones they are

using. If our vendor is not using this piece of equipment, we'd have to probably get with them to see if they can begin using this equipment. But if they have an agreement with another provider to provide a certain rectifier, then we may not even be able to use this one. BellSouth would look at it if this is true, but I'm just saying that we need to verify that it will be applicable to BellSouth.

Q In a forward-looking study, aren't you obligated to look at the most efficient piece of equipment that's available on the market?

A It's BellSouth's position that we should look at -- again, based on what I said in my summary, the forward-looking study is based on -- the benchmark is a forward-looking study with the existing network that actually exists. And in this case what would exist is BellSouth's agreement to provide power using one vendor throughout the region, and whatever that vendor has to use is what our forward-looking costs would be.

Q So if your vendor is using an inefficient piece of equipment, then your cost study would reflect the use of that inefficient piece of equipment on a forward-looking basis?

A No. Again, it depends -- this is one component of the rectifier specification. There are several other items on this page that may be more critical as far as day-to-day working, other rectifiers. I don't know that without -- I'm not an expert on rectifiers, but you're targeting one item and

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saying that's what would drive a company to pick a rectifier, and I don't know if that's true or not. We'd have to look at it to verify.

If a Model J85503C-3 rectifier from Tyco was compatible with a BellSouth central office for use in a BellSouth central office and it was a more efficient piece of equipment than that currently used by BellSouth, doesn't TELRIC require that you base your cost study on the use of that more efficient piece of equipment?

TELRIC, as it's stated, does say that you should use Α the most forward-looking equipment. You have to insert that it is usable in the network. And that's the part that -- I couldn't really address that without looking in more detail on this to verify that it is. I mean, my assumption is that BellSouth would have looked at the most efficient, most economical item, and that's what we'd be using. And to the extent that -- you know, again, I don't know what we're using, but to the extent we're not using this, there would be a valid reason for it. But I'd have to verify. I can't answer that.

But you have no information other than that it was used in a previous Telcordia study as to why BellSouth might have used 85 percent; is that correct?

And because it varies. It actually varies between Α sites depending on the equipment again.

0 I believe my earlier question I asked you to assume that this piece of equipment, and I described it by model number, was compatible for use in a BellSouth central office. Wouldn't then under TELRIC BellSouth be obligated to incorporate the more efficient rating in its cost study?

A See, again, it gets back -- and I guess my only concern -- and I know what you're saying, but my concern is that you're looking at one specification of a rectifier. It may be that something else on this page is much more important than the efficiency that you're showing, and that would say that for BellSouth's perspective, this is the rectifier we'd use. So in a real world forward-looking environment, and I'm just throwing this out, we may never use this because of the other criteria that's more important than just this one line. When you look at the other -- I mean, look at the rectifiers as a whole to determine is this one that we reasonably want to use in our network.

- Q I mean, I'm trying -- is that a no?
- A I'm saying it depends.
- Q Okay. So you can't make a determination, again with the caveat that I've given you, that this piece of equipment would be compatible for use in a BellSouth central office. You can't give a yes-or-no answer as to whether TELRIC requires you to use the more efficient piece of equipment; correct?
- MS. WHITE: I'm going to object. I think it's argumentative. Mr. Shell is obviously uncomfortable accepting

Mr. Early's assumption. 1 2 MR. EARLY: I think this assumption is a perfectly 3 reasonably assumption. This is a rectifier that is capable of being used in a BellSouth central office. I don't know how you 4 5 could have a more agreeable assumption than that. 6 CHAIRMAN BAEZ: My concern is that you've asked the question three different times. I'm not sure if you are going 7 8 to get an answer. 9 MR. EARLY: As I understand the prehearing order that 10 was entered in this proceeding, a witness was, if not compelled, at least asked to answer questions with a yes or no, 11 12 and then to the extent that they need to qualify or explain their answer, that they could do so. And so far with regard to 13 this question I have yet to receive a yes or no. 14 15 CHAIRMAN BAEZ: Ms. White, he's got you there. MR. EARLY: I mean, no is okay; yes is okay. 16 17 CHAIRMAN BAEZ: We're going to try this one more Mr. Shell, Mr. Early is correct on the yes or no. So if 18 time. you would, please -- you can qualify any way you want, but 19 please lead off with a yes-or-no answer. 20 21 And, Mr. Early, we're going to try this question one 22 more time. 23 MR. EARLY: Okay.

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CHAIRMAN BAEZ: One last time.

MR. EARLY: All right. Thank you.

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BY MR. EARLY:

Q Mr. Shell, again, I want to make the assumption that the Model J85503C-3 rectifier provided by Tyco Electronics is capable of being used physically in a BellSouth central office. If that rectifier is a more efficient piece of equipment than the rectifier currently in use in that central office in terms of developing the cost study, does BellSouth have an obligation on a forward-looking basis to look at the more efficient piece of equipment?

A I'm going to have to answer the question as no, and then follow it with a depends, because your question was is it capable of being used. But again, I go back to -- my only concern is that we have the efficiency that you're focussing on as the criteria for choosing a rectifier, and I don't know sitting here if that is the main criteria for BellSouth or BellSouth's vendor to choose a rectifier. So I would have to answer with that.

- Q Okay. Thank you. Let me ask you a couple of fairly basic, I think, power questions. If you have an existing power plant at a central office, how do you go about increasing the basic serving capacity of that power plant?
 - A Are you asking for the process involved?
- Q Yeah. What would you do as an equipment manager -you know, if there's a determination made that there needs to
 be more power, how do you go about doing that?

A You'd have to issue what's called a job authorization which fills the paperwork to again get approval from senior management in the network department to get the budget approved to purchase the equipment. And then you'd have to, once that's assigned, get a telephone equipment order issued, which goes to the vendor, which authorizes them to order the equipment, go to the site, install it, test it, and make sure it's working appropriately. I mean, that's the general flow. I'm not sure --

Q Well, is there a particular piece of equipment that governs the capacity of a power plant?

A There's several pieces of equipment. I think you mentioned the rectifier is one. It comes in varying sizes. There's also the batteries. You have also an engine, a generator which is required in case the AC goes out. You have power bus bars to carry some of the power, and you have battery distribution fuse bays. There's several components with different capacities that may be required.

Q If you have a 2400-amp power plant, how do you derive that number, 2400? Is there one piece of equipment in particular that gives you that kind of baseline number for the capacity of a power plant?

A I don't know if it would be one piece of equipment.

It's more of what power requirements that either BellSouth or

BellSouth and the CLEC requires. I mean, if you're asking what

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determines how much power you need, it depends on what the amount projected for the parties involved would need, if that answers your question.

Well, let me ask you this. You have a 2400-amp power Doesn't that mean you have 2400 amps' worth of plant. rectifiers in that power plant?

You would have whatever the incremental amount is. Α In other words, you've heard the term "lumpy." You have lumpy investment in capacity associated with the equipment. I don't remember the exact capacities of rectifiers, but, for example, you could have a 5000, 25,000, 30,000. So you may need 24,000, but you may have to get 25,000 or, you know, you may decide to use 35,000. So the lumpy investment would say that you may need a certain amount, but because it only comes in certain increments, you have to get something a little bit larger to accommodate that, as well as an incremental growth.

- Rectifiers come in 200-amp units; right? Q
- Right, 200-amp. Α
- So if you have --Q
- And other. Α
- Q Okay. So aren't you -- when you say you have a 2400-amp power plant, that's the capacity of that power plant, doesn't that mean that you have some string, whatever sizes, 400, whatever you're stringing together, but that you have 24 amps of rectifier capacity? Isn't that where that number

derives from?

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Α Well --

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CHAIRMAN BAEZ: Mr. Shell, yes or no first.

THE WITNESS: Oh, okay. Sorry. Excuse me. just think for a minute. Let me say, yes, with the caveat that with the rectifiers, if what you're saying is that the power comes through the rectifier, it goes through the battery, then goes to the equipment, so therefore, you need 2400 amps of rectifier to do that. But then you also need to have what's called the N plus 1. You'd have an extra rectifier --

0 So a spare.

-- technical specification plus with recharge capability. So, yeah, you could have 2400, but you have to have a little more because of the requirements, technical requirements.

- You have a spare rectifier in case one of them --Q
- Α And for recharge, yes.
- -- whatever, they blow up or whatever they do. 0
- Α Right.

0 All right. Now, you also have batteries. So you come off the rectifiers and now you have a group of batteries. What is the purpose of the batteries?

Α It gives you reserve capacity for power. In other words, if the power goes out, the engine alternator takes a while to kick in. The battery gives you that time to keep the

central office functioning until the battery kicks in. So the 1 2 charges from the rectifier keeps the battery working until it's 3 needed 4 So let's say you have enough batteries, you're coming 0 5 off of your rectifier, you have enough batteries to run 6 whatever you're running in that central office for three and a 7 half hours. Assume that. 8 Α Okav. 9 If you add more batteries, that just buys you more 0 10 time, doesn't it? If the power goes out, you're buying time 11 with batteries? 12 Yeah. I think that makes sense. 13 0 Okay. Does BellSouth consider the power plant a 14 shared asset? 15 Α Can you define "shared asset"? 16 0 Well, we talked earlier about -- some of the 17 definitions that we talked about included capacity cost, and 18 that was kind of an analysis of an asset that's shared among a 19 number of different people, and it could be CLECs or it could 20 be BellSouth. Do you recall that discussion? 21 Yes. We were talking about the example, DS1 Α 22 facility. 23 Right. So is a power plant, is that what you would 0

consider to be a shared asset, an asset that might be shared by

both BellSouth and CLECs using that central office?

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A I would say that -- let me try to answer this yes or no. Yes, it's shared. I would not put it in the same category as what we typically use for a DS1, which is, you know, we've got a pipe, that's a pipe. But with a power plant, you have multiple components of it. So you could be sharing a portion of a -- a string of battery portion over a string of rectifiers, a portion of the power bus bar, a portion of a BDFB. It's a little more difficult to do a capacity cost scenario with a power plant compared to just a pipe where you know what you have is a set 24 channels in DS1.

Q But by definition, doesn't everybody who uses the central office have to use that power plant?

A To the extent they need power, that's correct.

Q So you could have a pipe that might only be used by one or two users of a central office, but anybody who needs power in that central office is using that power plant; is that correct?

A Yes, they have to use that power plant.

Q Now, let me assume you have a central office. You've got plenty of floor space, but your power plant is at full capacity; you're maxed out. So what do you do in that situation if another CLEC comes in and says, I want to collocate on this piece of floor?

A Let me make sure I understand you. So you're saying we have a power plant. In that specific area where it is,

there's no more space.

Q That central office, from a power perspective, is maxed out, but you have plenty of floor space. So a CLEC comes in and says, hey, I want to use this piece of floor to run my equipment. What does BellSouth do in that situation? Can you increase the size of your power plant to accommodate that CLEC?

A We'd have to, yes. Pursuant to the rules -- I'm sorry I didn't understand your question at first. If you're asking if you -- we -- plenty of space, the power capacity is out, what we do is have to augment the power plant. Yes.

Q Now, let me ask you to assume in that situation you have a CLEC that comes in; you're maxed. You don't have a spare amp, and a CLEC comes in and says, I need to draw 22 amps. My equipment is going to draw 22 amps. Would you, as BellSouth, come in in that situation and install an additional rectifier to give that minimum 22-amp capacity?

A It depends on which component is -- I mean, that would be one of them, but you may have to -- depending on what else is required, you may have to add batteries, possibly. It may be another BDFB to distribute the power out to the collocation space. I would agree that probably the rectifier would be one item. Again, you've got a minimum capacity of maybe -- I think maybe the lowest is 50 amps. I'm not exactly sure for the rectifier, but there is a minimum capacity for it as well.

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Q Okay. So if somebody comes in and -- well, let me ask you this. Now, if you have plenty of floor space, you know you've got tons of floor space in this central office, would BellSouth typically in that case try to increase the capacity of the power plant to look forward as to other expected users of that central office and provide that capacity at one time?

A We would provision more than just -- I mean, number one, in answer to your question, yes, we would. But again, just to go further beyond that is that we would hopefully never get in a situation where we are maxed out. What we try to do is at a certain point when we're at a certain utilization, we begin ordering more capacity because we don't want to get to the point where we may have a blackout because we don't have sufficient power in case a spike occurs someplace or something.

What I'm saying is we don't want to get to the point where we can't provide power to our customers as well. So we would never hopefully be at a situation that you had -- you're hypothetical question, you know, question earlier, we would hopefully never get in that position. We would purchase power that would meet our needs as well as a CLEC.

Q So BellSouth, as a rule, to the extent you can -- I mean, I'm kind of asking you this in just kind of a rule. As a rule, BellSouth tries to kind of look forward, look ahead to see what power draws might be expected from that central office and to kind of plan ahead to meet it before it actually occurs;

lis that fair?

A That's just day-to-day business. Yes, that's correct.

Q Now, let me ask you to kind of go back to my assumption though, and assume that, you know, for whatever reason you've got a central office that's really straining. I mean, it's about maxed out, and you have a CLEC that comes in and asks for 22 amps. I've got to have 22 amps. And so you come in, BellSouth says, okay, we're going to install 200 amps more of power. We're going to put in a 200-amp rectifier. We're going to do whatever we need to do with the batteries and all the other equipment, but that you've decided to upgrade that power plant by an increment of 200 amps. Are you with me?

A Right.

Q Okay. In calculating the cost that's going to be charged to that CLEC for that amp, for those 22 amps of power, do you take -- and let me assume that this 22-amp rectifier costs you 10,000 bucks. It's a nice round number. I don't know what they really cost, but it's easy to divide by. So you have a 200-amp rectifier that costs \$10,000. In determining the cost per amp charged to the CLEC, are you going to take \$10,000 divided by the 32 (sic) amps that the CLEC has requested and charge them that amount per amp, or are you going to take \$10,000 divided by 200 amps that you've installed and charge them per amp on that calculation?

A Okay. Let me just -- well, I can't say yes. Let me just try to clarify before I answer that one. You're saying charging, but I think you mean develop your cost. Is that what --

Q Yes. Yeah. I'm sorry.

A Okay. I want to make sure I follow. Okay. We're going to charge you based on 22 amps based on the order of the Commission.

Q How do you develop that cost?

A Okay. To develop the cost, what -- and to go back to what BellSouth did, BellSouth used again 711 jobs. Some of the jobs probably fit into the category you described where we had a request for additional power, and as a result of that request an augment was done. And we not only augmented for the CLEC request, but we augmented for future requests for the CLEC as well as BellSouth. And we used that total investment divided by the total amps to get an average augmentation investment per amp for that scenario.

But there are other scenarios where BellSouth included in its cost study where the CLEC requested 20, 50 amps or whatever. We had that in the CO capacity available. So the cost was zero for that one. So we had both sides of that. What we try to do is look at the augments that were occurring and to develop an average based on several -- 711 jobs.

Q But in determining that cost and incorporating that

into whatever structure you're going to do, do you take that \$10,000 cost that you've expended for bringing that power plant up by 200 amps and divide it by the 22 amps requested or the 200 amps provided?

A I'm trying to -- excuse me. This thing is sometimes loud, sometimes soft. I'm trying to remember what -- the study right now on that particular question. I have to look at something to verify your question on that -- your answer on that one.

Sorry. The microphone keeps -- the sensitivity changes on me. I believe what I did on that one, we divided by the amount that the CLEC requested because that's what initially drove the request.

Q Okay. So you have a CLEC that's requested 22 amps and your cost per amp that you're going to calculate for that is 10,000 divided by 22?

A In that scenario, yes.

Q Well, what happens when the other 178 amps get used? How do you cost that out?

A In that scenario --

Q I mean, are they not charged to anybody or --

A Well, let me go back to clarify. You say charge, but we're talking about cost development. BellSouth in that scenario -- like I said before, we have some jobs that required a lot and you divide it by that number. But other jobs --

like, for example, someone else came in and needed 50 amps of that. There was zero charge on that one. So what we're saying is by doing 711 jobs, we're doing an average. In some cases the cost for that construction may have been slightly higher than it should have been; other cases it was zero. So by doing 711, we developed an average across many jobs. It shows on an augmentation basis what amount of cost would apply.

And this all goes back to the FCC's order -- the FCC order, Paragraph 51 which says, initially it told BellSouth and all ILECs that you can prorate -- you can augment power, but what you have to do is prorate it so that the first collocator doesn't pay everything. So in the scenario you were saying, the first collocator wasn't going to pay \$10,000. By us prorating over several jobs, we spread that cost out over all the parties that came in for 22 amps, 50 amps, up to 200. And that's what we've done in our augmentation. We've done it on a much broader schedule -- methodology by doing it over 711 job, but we, in essence, are prorating the augmentation based on the FCC's order that allows us to do that.

Q So in the situation that I've given you where somebody has come in and ordered 22 amps, you're basing your cost on however many amps you've provided divided by 22, and that's the cost for however many amps you've provided divided by 22?

A Yes, in that scenario. And again, it's the cost

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development, not the charge. So the cost development for the subsequent providers would be zero so that eventually the average would turn out to be what it is, the 10,000 over 200.

Q If BellSouth decided for whatever reason to come in in that situation and provide additional amps, provide 2400 additional amps -- you want to kind of look forward for some growth -- and you say, well, we've gotten a request for 22 amps, but let's go ahead and put 2400 in because it seems like the right thing to do right now, which would be an expensive job, I take it, you're taking the cost of that entire 22 amps -- I mean, that entire 2400 amps that you're increasing that central office by and then dividing that by 22 to come up with your cost per amp?

A For that particular item in the sample of 711 jobs, that's what we did. But again, subsequent to that order, you would expect other providers to come in to ask for power and that cost would be zero. I mean, what BellSouth is doing -- the first CLEC came in; they utilized BellSouth's existing capacity. BellSouth, you know, if you did the cost study would not -- the cost would not have shown anything but zero. They're utilizing capacity we have already built into the infrastructure. So what we're saying is that on some sides, yes, you will have the situation where we may have put in more than they asked for; the other side, the CLEC comes in, they ask for power, the study sample that did the averages showed

zero. So, in essence, what we've done by using 711 jobs, we've averaged out the average incremental cost on a prorated basis based on what the FCC says. We didn't do it on one CO basis, we did it on 711 jobs, which is much more, you know, accurate.

Q Okay. Are some of those jobs -- I mean, 711 jobs, is that 711 central offices, or might you have multiple jobs in a single central office that go into that calculation?

A I believe they are central offices. I don't recall seeing more than one central office CLLI code. I can't say that for sure, but I'm pretty sure that it's just separate central offices.

Q Okay. Let me talk a little bit and kind of go to your cost study. And you've talked about the 711 jobs that you used in developing the inputs for your cost study; correct?

- A Can I go back?
- Q Sure.

A I just recall in looking at -- thinking back on the study, we do have several jobs in one central office. I take that back because if you look at my Exhibit WBS-4, you'll see that there is a cost shown for one CLLI code and then an amp. Then you have upon it several more requests for amps with no cost. So, in fact, that does show that up front, the cost study shows one job going in for a requested amp, but then subsequently other jobs going with no costs associated with it. So it does involve more than one request per office.

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Q Okay. Are there any that are just one job per office? I mean, is there a range?

A There could be -- yeah, there would be a range. Yes, there would be a range. Yes.

Q Okay. Now, with regard to the cost study, is that study -- and again, you've referred to the 711 jobs, and that 711 jobs constitutes the inputs, the cost inputs that go into your cost study; is that accurate?

A Yes. That created the investment per amp used in the cost study.

- Q Is the cost study a census study or a sample study?
- A I'm not sure I know the difference.
- Q Well, census, you took all jobs that were performed by BellSouth over a period of time and every one, you performed a census. You've counted them up, one to "X," however many is at the end. Sample study would be you just took a sample, you took some portion. Was this a census study or a sample study?

A I believe it's more appropriate to label it a sample study because they took several jobs based on the ones they could get in the time period that was given to them.

Q And in fact, in the study didn't you have some states, entire states that were not represented in that study?

A That's correct. You have some states with very little demand for collocation and very little information available.

Q Okay. Well, it also didn't include Georgia; correct?

A Right. Georgia, particularly at the time, they were extremely -- the way this process worked was the power manager at the headquarters had to request this from the state field people. And at the time Georgia was extremely -- what he told me was Georgia was extremely busy trying to get actual jobs completed, and they could not spare anyone to perform that specific study. So Georgia did not have any data points.

Q But Georgia is pretty big in terms of collocation, isn't it?

A Yes.

Q Okay. Now, who developed -- or who chose the samples to be used in the cost study?

A The field power engineers.

Q Did you have a statistician come in and design or oversee the selection of the samples?

A No. We just assumed that 711 jobs was a sufficient enough sample to represent the population. I mean, I've compared the 200 as somewhat of a bogey for most statistical examples. We just felt like 711 was sufficient. And again, this goes back to the FCC allowing us to prorate, which really, in essence, says, if you have a central office installation, AT&T requests power, BellSouth does not want to -- or cannot charge AT&T \$20,000 for that augment. We have to in some way allocate that cost, you know, between Covad, MCI, and other

providers so that one party doesn't pay it. And all BellSouth is saying what we've done is essentially taken that and expended it and did 711 actual augmentation jobs to try to figure out what is a good way of allocating a cost per amp.

- Q Do you know how many total jobs were performed during the study period in the BellSouth nine-state region?
 - A No, I do not.
- Q So you don't know what percentage that 711 is to the whole of all jobs?
 - A No. I do not.
- Q When the power engineers were selecting jobs to go into the study, do you know what reasons they used to select one particular job over another?
- A My understanding was just jobs that were completed and available.
- Q So they just took them off the shelf as they came off the shelf, or did they randomly select, or did they select only jobs within a certain period of time? I mean, do you know that answer to that question?

A Just my understanding was they took jobs that were completed; I don't know what time period. I know they -- it was again '99 to 2000 when they did the study, but they pulled it off of a system that BellSouth has, which is the BellSouth construction management system that has actual construction costs for the power jobs. They pulled it off of that. My

understanding was they used available jobs that had existing completed cost data with it.

Q Do you know if the power engineers were instructed to select a sample that would have been a statistically reliable representation of the universe of all jobs that were done by BellSouth?

A I don't know if the power manager was told to look at it from that perspective. The headquarter's power manager again assumed that 711 was sufficient quantity to be representative.

Q Okay. And those 711 jobs were drawn from five of the nine BellSouth states: correct?

A I haven't counted the numbers, but that's about right, I guess.

Q Okay. Now, you indicated before that BellSouth uses a single vendor for the entire nine-state region. Does this vendor typically use the same equipment in Florida as the vendor would use in Georgia?

A I don't know. I don't know that for sure.

Q Is there anything inherently different in a central office in Florida in terms of configuration or how power comes in than a central office in Georgia?

A I wouldn't think so.

Q Okay. Would you expect -- given that you have a single vendor who does all your work, would you expect that the

1	cost per amp for a job done in Kentucky would be equivalent to
2	the cost per amp of a job done in Alabama?
3	A I would expect the vendors costs on a comparable
4	let me answer your question, I guess. In answer to your
5	question, I would say, yes, with the caveat that the job and
6	the work being done are comparable, the same. You could have
7	different functions being done which obviously would give you
8	different costs.
9	Q Would you expect and again, in terms of the cost
10	per amp, would you generally because, you know, a bigger job
11	you can have more amps and it's going to cost more, a smaller
12	job a 400-amp rectifier is going to cost more, but you're
13	going to get more power, and a 200-amp is correspondingly
14	smaller and less power. In terms of breaking that down to a
15	cost per single amp, would you expect generally the cost
16	between states to be roughly equivalent?
17	A I would say roughly equivalent for the same
18	equipment. Again, it depends on exactly what's being ordered.
19	Q Okay. Let me ask you to
20	CHAIRMAN BAEZ: Mr. Early.
21	MR. EARLY: Yes, sir.
22	CHAIRMAN BAEZ: How much more cross do you have,
23	estimated?
24	MR. EARLY: That much.
25	CHAIRMAN BAF7: I'm sorry I wasn't looking. How much

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MR. EARLY: I've got probably a half an hour would be my guess.

CHAIRMAN BAEZ: We're going to -- if you'll just hold your thought, we'll break for five minutes real quick, and then we'll finish this witness before we break for lunch.

(Brief recess.)

CHAIRMAN BAEZ: We'll go back on the record.

Mr. Early, we interrupted you. If you can proceed.

MR. EARLY: Thank you.

BY MR. EARLY:

Q Mr. Shell, let me kind of go back to a question I had, and I'm not sure I -- I want to make sure that I understand it and obviously want to make sure the Commissioners understand it as well.

In the situation again where you have the \$10,000 job, the 200-amp rectifier, the 22 amps that have been ordered by a CLEC, you are -- BellSouth, I believe you testified, develops its rate per amp based on the full charge for the augment divided by the number of amps that were ordered by the initial CLEC; is that correct? 10,000 divided by 22 in my example.

A Yes, the cost developed for that particular job was based on that. And again, there are several other jobs for that location or other locations where you would have a request

for 20 or 30 amps with zero cost because the CLEC is taking advantage of what's already been provided in the network. So our methodology for doing that is that we are prorating the cost so that a single carrier does not pay the total amount. And that's not the rate, it's the cost for that particular job that's averaged over 711 jobs.

Q But when you develop your -- and I think you said the next guy in line. You've got the guy that you've developed a rate based on 22 divided by 10,000, and the next guy in line comes in and he basically has no cost; is that correct?

A Yes. The 10,000 divided by 200, yes.

Q But he's still paying a rate that was developed by dividing the total cost of the augment by a fewer number of customers that would be ultimately using it, isn't he?

A I'm not sure I follow that.

Q Your rate is based on 10,000 divided by 22.

A The rate is based on a compilation of 711 jobs. That one particular example would be that way, but again, there would be several additional examples where it would be zero when they request 20, 30, 40, or 50 amps. So that's just one of many samples that go into the job. And again, it goes back to the philosophy of we're prorating. We're going beyond the central office where you'd come into a central office and say, I want 100 amps and we have to augment. The first party we're not going to charge them all of that. We're going to prorate

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it. And our methodology of prorating is using this 711 jobs to do that.

But in terms of the -- we talked about the definition 0 of the term "increment" in TELRIC, and isn't the increment the cost of providing that one additional amp of power?

Yes. Increment is the cost of providing the one additional amp. And what BellSouth has projected as that cost is the number based on our sample. We're saying that pursuant to FCC that allows us to recover the cost of augmentations of power on a prorated basis, we are -- determined this proration on 711 jobs. If you did it individually, somebody would pay a whole lot, somebody would be paying nothing. We're prorating over 711 jobs, and we're projecting that that is a valid incremental cost per amp.

But when you develop that rate per amp, you're 0 developing it based on a large cost divided by a small number of amps to be used, so don't you get a bigger number in that situation that then is going to be applied by everybody else who comes and utilizes those additional 178 amps of power?

No, no. I mean, if you look at what happens in the scenario, when it's all done completely -- for example, say, you had two CLECs coming into a central office. They order 50 amps of power and it costs \$100. The first one uses 25 amps. In that case, you know, the cost is \$100. The next one comes in and gets 25 amps, we don't charge anything. So

essentially what you have is \$100 divided by 50. So either way you look at it, you are getting that incremental cost of the added amps by the total cost when you prorate the whole thing all the way out. The concept is we're prorating multiple jobs so we could come up with the actual cost per amp.

- Q I'm not sure I understood kind of the first part of that. So you have an office. Were you saying 100 amps, \$100? I mean, is that what you were --
 - A I'm choosing simple numbers.
 - Q I mean, as an example.
- A I'm just using simple numbers to say that it's -- the party asks for 50 amps.
- Q Well, I mean, I want to go back to the example you used. Was that kind of --
 - A That was it.

- Q Because it means it divides easily, which is good for me.
- A That was the example. 50 amps requested, \$100 was the cost.
 - Q Okay.
- A Okay. The first party -- excuse me. Back up. They ask for 25 amps; we provided 50 amps. We gave them 25 amps of power; that costs us \$100. So that was \$100 over 25. But the next party got zero cost with 25 amps. So what you have is the total cost of 100, the total amps of 50; you still come up with

the same 100 over 50. All we're doing is prorating that cost 1 as opposed to billing this one guy 100 over 25, \$4, and the 2 3 other one zero. Okay. But you're developing a rate; right? 4 We're developing a cost per amp. 5 So you're developing the rate based on \$100 divided 6 Q by 25, which is \$4 an amp; correct? 7 8 And also zero divided by 25. 9 But doesn't the second guy in line, isn't he paying Q the rate that you've developed already for that augment? 10 No. Again, I'm going back to the difference between 11 Α the cost versus the charge. All we're doing in these projects, 12 this 711 projects is developing the cost. This has nothing do 13 with what anybody is getting charged. That's totally out of 14 the picture. It's just a way of costing -- developing a cost 15 Nobody is charged yet. Only when the total cost per 16 amp is derived will the charge be applied, and that charge will 17 be based on a proration of all those jobs. 18 All right. Now, you indicated that kind of because 19 0 there's such -- there's this kind of big number, this 711 is 20 enough, in your view, to kind of, I guess, kind of chop off the 21 22 hills and fill in the valleys and you kind of get a --23 basically a roughly equivalent charge per amp?

A Correct.

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Q Okay. Can you quantify that? I mean, is it

1 | within -- you know, are you talking within 10 percent?

A We would say it's within 10 percent, yes, easily.

Q Okay. Let me ask you to take a look -- excuse me one second. I want to provide you with a document that's a confidential document that was provided. I believe it is Staff 22, BellSouth confidential document -- BellSouth Confidential Stipulation-1, Staff Exhibit 22. This is a part of POD 32.

I just kind of want to go through this and see if I understand how these amp charges in here are working. If I could just have you go to the very first one, which is RCMDKYMA. I'm not all that sure what RCMD city is. I assume that is Kentucky and MA is the identification of the central office that's in whatever city RCMD is.

A Yes, that's correct.

Q Now, I'd ask you to take a look at the second page of that document, CLEC Number 1 data. Now, that CLEC ordered a particular number of amps, a particular number of fuses at a particular fuse size, ordered basically, this is what I want; is that correct?

A Yes, that looks correct.

Q Okay. And the number that shows up in the ninth column is prorated share power plant construction. Can you tell me what that number is? Not what the number is, but what that number represents.

A Okay. Give me just a minute. I've seen this before.

It's been a while since I've looked at it. I have to reorient myself.

If I'm remembering correctly, and it's actually been a while since I've looked at this, I believe what this represents is, I guess like it's stated here, the prorated amount of this total cost that's going to this CLEC.

Q Okay. And this CLEC ordered the number of amps that are contained in Column 4, the number of fuses in Column 5, and the fuse sizes in Column 6, okay?

A Okay.

Q Now, let me ask you to go to the next document in that stack, which is LSVL, and I'm going to assume that's Louisville, LSVLKYVS. And if I could ask you to go to the sheet CLEC Number 2 data, which is the third page in that sheet. This instance on Column 4, we have a CLEC that has ordered a particular number of amps, which is the same number of amps as we discussed in the previous one, a particular number of fuses, which is the same number of fuses at a particular fuse size, which is the same fuse size, and yet the prorated shared power plant construction to that CLEC is about a third of what it was for the previous one.

If you're using the same vendors and the same equipment and everything is going to be kind of equivalent, how is it that the prorated share of power plant construction charged to that CLEC is a third of what it was in this other

city?

A Well, I'm just looking at this. This really doesn't tell you the itemization of the equipment -- the total equipment that was provided on the job. I'm just trying to see --

Q But your costs are based on amps; right? They have all asked for the same number of amps, shouldn't they all have an equivalent cost that's assigned to that CLEC for that job?

A The thing I don't know for sure looking at this is that the first one, the RCMD example, which has 10,000, I guess I shouldn't say, has a certain number approximately associated with the share versus the other one which is significantly less. The first one could have included additional equipment required. I don't know if this has just what was requested or everything that was required on the job. That's what I'm not sure about.

In other words, I don't know if there was anything else required or initially put in on this project that's not listed here on this sheet other than rectifiers -- other than the BDFB, two fuses, and 60 amps.

Q Well, if the CLEC is paying a recurring charge based on amp of DC power, shouldn't that all kind of -- all of these costs that are assigned to a CLEC for the construction of the power plant be rolled into that per amp of DC power charge?

A All I'm saying is you're looking at -- I think your

question is based on the fact that both of these show two fuse -- the request being two fuses, 60 amps and therefore the numbers should be the same. What I was saying was I don't know if there are other equipment items included in the first one that caused the prorated share to be greater or not.

Q But in terms of what a CLEC is paying per amp, why should what particular piece of equipment went into providing that amp make such a dramatic difference in the charge back to that CLEC?

A Well, again --

Q Aren't you trying to set a rate based on 711 things, and they're all supposed to kind of come out about the same?

A Yes, when you do the average. What I'm trying is if this one required -- and it doesn't say this -- additional equipment that's not here, then that would -- then that \$10,000 would be based on something that's not shown is all I'm saying.

Q Would that be a nonrecurring charge that's charged to that CLEC?

A No. In this case this is a cost that BellSouth incurs whenever the vendor would do the work. So I'm saying there could be additional vendor costs not shown here. I mean, it shows \$10,000, but I don't know if it shows in detail all of the work and equipment that was actually installed in this particular CO. That's all I'm saying.

Q Well, the last column in all of these things is total

charged to CLEC. This is a charge that's going to the CLEC; correct?

MS. WHITE: Mr. Shell, remember, too, that the numbers are confidential and should not be stated out loud.

THE WITNESS: Okay. Yes. Thank you.

MS. WHITE: Thank you.

A What I was pointing to though is -- again, I haven't looked at this in a while. But, for example, if you look on the front page of RC -- the one labeled RCMDKY --

Q Right.

A -- versus the other one, the LS, the one that I call RC for short, it has a total plant construction cost for that CO that's greater than the one for the other one.

Q Right.

A So my assumption based on that, which I feel pretty comfortable about, is that the proration on this one is based on the total costs required to augment that CO which is greater than the cost for the second one. So, I mean, even though this one page for this CLEC shows this, that CLEC is probably taking advantage of some other equipment that was required.

For example, if you have a central office that has significant capacity of everything except BDFBs, all you have to do is add a BDFB. The second party needs a BDFB and they don't have enough capacity of a rectifier or in this case, yeah, a rectifier, you may have to add a rectifier before you

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can add the BDFB. And it looks like the first one is adding equipment in addition to the -- more equipment than the first one is what's causing the proration to be greater.

Okay. When you're setting the rate that's going to be charged to a CLEC, is it done central office by central office? Is the rate at the RCMDKYMA central office going to be based on what's in that central office, and the rate in the Louisville, Kentucky -- the next one, is that going to be based on what's in that central office, or do you try and establish this over a broad range?

We're developing a broad -- again, a sample based on Α specific jobs, prorating over across all of these so that no particular area is really being charged to anybody, but a total sample average of all of these are what we use to develop our investment per amp that goes into the cost study.

Well, then again, getting back to my initial question. You have two CLECs that are ordering the exact power They both want to draw that many amps of power and yet draw. one is being charged triple what the other one is being charged. How can that be?

Again, they're not getting charged. You're mixing again charging with cost development. This has nothing to do with it. What we're doing is developing a cost. And evidently on the first job, in order to provide the 60 amps, they needed more equipment -- it looks like rectifiers -- which made the

total cost significantly greater. The other one didn't need to do that. So the cost development for these two jobs were different because they needed different equipment. But the charge is based on an average of all the jobs put together, not any particular job.

Q Well, then how do you explain the last column that says, "Total charged to CLEC"?

COMMISSIONER DEASON: Let me ask a question. Was that an actual charge or just is that the proration to the CLEC for purposes of the study to determine the proration overall?

THE WITNESS: These numbers here were used for proration for the cost study, not an actual charge.

But let me answer your question. This data may have come from an agreement where some CLECs had ICB arrangements. So this may have been a scenario where the CLEC had an ICB and maybe the charge that would apply in that scenario would have been that, but this is not the charge we apply. It's not what we're proposing in this docket. This is only used for the cost development for prorating the costs. It's not a charge we apply.

BY MR. EARLY:

Q So that is -- is it your testimony then -- and let me ask you this directly then. In all of these -- and you can look at all of them and they all have a bottom line at the end -- where it says, "Total charged to CLEC," is it your

testimony that that is not a charge that was directly charged to the CLEC ordering the power as reflected on that page of data?

A Again, I'm not exactly sure what was done with this. This could have been used for a CLEC that had ICB. So it might have been something that was going to be charged to them, but for this cost development, we're not using that total charged column. We're not going to charge a CLEC this. We now have a recurring charge. This data came from maybe a time period when there was an opportunity or the agreement that said, ICB, that this would apply, but it doesn't apply now. We would not use these to charge a CLEC.

Q Let me ask you then to look again -- we'll start with the -- okay. Let's go to Louisville KYVS, the second one that I gave you, LSVLKYVS. Now, on the first page, you have total not yet allocated to CLECs, and then on the individual data sheets you have total charged to CLEC and in that case you have three pages. Now, if you take the total plant construction cost minus the total charged to CLEC on those next three pages, don't you come up with the total not yet allocated to CLECs number?

A I haven't done the math, but \$21 subtracting approximately --

Q Don't say numbers. Your lawyers are going to get all over you.

1	Α	Sorry about that. Okay.
2	Q	I won't, she will.
3	Α	I would say you're approximately correct, I would
4	say.	
5	Q	That appears to be correct?
6	Α	Yeah, that appears to be close.
7		COMMISSIONER DEASON: Let me ask a question because
8	I've gone	through these numbers in my head and I may be
9	incorrect	, but I thought that if you added up the prorated
10	share col	umn for each of the three plus the yet to be allocated
11	amount on	the first page, that would equal the total plant
12	construct	ion cost on the first page; is that correct?
13		Let's go over that again. If you add up the prorated
14	share on	the three pages plus the yet to be allocated amount or
15	the first	page, that that would equal the total plant
16	construct	ion cost on the first page.
17		THE WITNESS: I'm doing the math now just to verify
18	that. Ne	ither one of the numbers are coming out exact based or
19	me doing	it up here.
20		COMMISSIONER DEASON: Doesn't it come to within one
21	dollar?	
22		THE WITNESS: It comes close. For example let me
23	just do i	t again.
24		MR. EARLY: For a lawyer, it would be on the money,
25	for an er	ngineer

1 2 3 4 within a dollar. 5 6 7 8 THE WITNESS: Yeah. 9 BY MR. EARLY: 10 0 11 12 13 Α Yes. 14 0 15 16 17 18 19 20 What does that parentheses mean? 21 22 remember what that represents. 23 24 25

THE WITNESS: Okay. If you do what you stated, which was add the prorated share power plant construction for select 1, 2, and 3 and the not yet allocated, it gives you, yeah, COMMISSIONER DEASON: Within one dollar? THE WITNESS: Within a dollar. COMMISSIONER DEASON: I think it's a rounding. Let me ask you to take a look at the -- I think not the next one but the one after that, which is LSVLKYSM. I think it's the fourth one in your stack. Are you there? Okay. Again, on CLEC Number 5 data, we have the CLEC ordering the same number of amps, the same fuse size, the same number of fuses, but I have a question on this. On the first page under power plant, the first page entitled, "Power Plant Data," it says, "Total not yet allocated to the CLECs" on the bottom, and there's a number with parentheses around it. I apologize. I'm trying to remember. I can't

Well, let me see if I can work you through it then. If you take the total charged to CLEC for each of the one, two, three, four, five CLECs that have ordered power and you add

those numbers up, don't you come out with a number that is this number more than the actual plant construction cost?

A I mean, I'll take your word for it, and make sure I follow what you're saying. That if you sum the numbers, CLEC 1 through 5 is greater than the total not yet allocated. Is that what you're saying? I just want to clarify.

Q No. You have total plant construction costs and you have total not yet allocated to CLECs, which has a parentheses around it. If you add up those five CLEC individual pages, don't you come up with a number that is total not yet allocated to CLECs more than total plant construction? Doesn't that parentheses mean that's a negative number?

A Yes, it does.

Q So in that situation, BellSouth has actually -- total charged to CLECs is actually more than the cost of plant construction, isn't it?

A I think if I recall correctly what this represents is the situation that we talked about earlier where at this particular point in time in this CO we had placed equipment in. The first party was allocated a certain amount and the total proration hadn't occurred. So the additional power equipment added has not come back to even out in this particular situation. Do you follow what I'm saying?

In other words, if you had the case of again the 25 amps requested, 50 amps provided, \$100, you're in a case where

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you had the 25 amps there, whereas you don't have the second party in yet. So this actual cost scenario will show that the second 25 amp request hadn't come in, and it hadn't washed out in this particular office at the time the study was done.

Q But you have five CLECs that are in there that have ordered power and the amount that's been charged to those individual CLECs is already greater than the amount of constructing the power plant. I'm not sure I understand how you can have -- and whoever comes in afterwards is going to be charged a rate for DC amps; right? I mean, they're going to have to pay for the power; correct? They're not going to get it for free.

A And again, I'm getting confused with the charging versus cost. We only used this for cost development. We didn't use this to charge a CLEC in what we're using it for. So we didn't charge anybody any of this data here. What we did again -- what I'm assuming happened here is that this is the scenario where we provisioned the power and the cost, and it had not washed out yet in this scenario.

Q Okay. Well, I want to make sure then I understand your testimony because you said this wasn't a charge that was -- it wasn't a cost that was charged to the CLEC. So was it your testimony that total charged to CLEC is not an actual amount of money that BellSouth charged a CLEC for ordering this amount of power in that central office, that that was not a

charge either recurring or nonrecurring that was charged to that individual CLEC? Is that your testimony?

- A No. My testimony is that when we used this --
- Q I need a yes or no on that one.
- A I thought I said no.
- Q Okay.

well, let me back up on that. My answer is I don't know. I mean, I'm not sure how to get that in. The thing is I don't know. We used this for cost development purposes. How it was used prior to that I don't know. There could again be the situation where ICB scenarios existed were this was actually used for a billing mechanism, but when I saw it, when we used it, it was just used for cost development. And we in the current environment and going forward for this docket, we're not proposing charging this. So I'm not sure what it was there for initially. We're only looking at it for cost development purposes.

Q I'm going to ask you -- I've got one more question, and then I'm going to stop on this, I think, but I just need to understand. Incremental means the cost to providing an additional amp of power; right? That's what the term "increment" in TELRIC means? And so in this case somebody came in and said, I need this many amps of power. Here's a couple of CLECs that have come in and they said, I need this many amps

of power, I need this many amps of power, I need this many amps 1 2 of power, here's what I need. And so BellSouth said, well, in 3 order for us to provide that power, we're going to have to do a plant construction, and it's going to cost us this much money 4 5 to do it. And yet the amount that BellSouth is then allocating 6 to that amount that you know what that amount is, the amount 7 that they are allocating either in terms of an actual charge or 8 in terms of developing your rate or in terms of developing some 9 future charge is now greater than the amount already that you 10 have invested in that new plant incremental plant construction; is that correct? 11

- A Again, you're referring back to the LSVLKYSM?
- ∥ Q Yes.

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- A Again --
 - Q I need a yes or no on that one, too.
- A Okay. Repeat the question. I'm not sure what exactly --
- Q Okay. We've got -- the term "incremental" in TELRIC means the amount of money that it costs to provide that one additional amp of power. And in this case we have one, two, three, four, five CLECs that have come in and said, we need power and here's how much we need. And in order to provide that power, BellSouth said, well, we've got to do an augment, and here's how much this augment is going to cost. And those are real dollars; right? Okay. And so when BellSouth

apportioned the cost of that augment, the cost of that additional increment necessary to get that power to the CLECs asking for that power, BellSouth has allocated this number more than the actual plant -- total plant construction cost, hasn't it?

A If I'm understanding your question correctly, you're saying in developing the costs, BellSouth has used this number which allocated more than the power plant costs.

Q Correct.

A I believe the answer to that would be yes, that in doing our costs -- and this gets back to the proration scenario I think I stated earlier. I believe this is a situation where we had projected a demand, the CLEC requested so many amps, BellSouth provided that and some incremental more because BellSouth and CLECs' projected growth. And when that was done, we prorated that cost as the CLECs come in. And in this situation I believe what it's saying is that it hasn't washed out. So the answer to your question is yes.

Q Well, in terms of proration, don't you prorate a cost so that everybody who comes in gets a little piece of it, and at the end, the last guy in is paying the last little piece to get you up to 100 percent? Isn't that what proration means?

A Yes, that's what it means.

Q But in this case you have gotten five CLECs in and yet the prorated cost that you've charged them is over

10 percent -- well, roughly 10 percent more than the cost you have invested into that augment, isn't it? Isn't that accurate?

I guess my question is, when the next guy comes in, are you going to -- how are you going to account for that? How are you going to get the CLECs that are already in who are paying a rate based on one charge based on having paid more than the amount of the investment? How does that work? I don't understand it.

A Again, I haven't looked at this in a while, but, you know, this scenario could be the situation where we're allocating the expense based on the power plant construction that has occurred. And to the extent they're using power plant that we have already inputted and had working in our CO, then this could be saying that we're allocating a certain amount of the costs associated with something that was put in already previously, not necessarily on this particular request, which is what's leading it to that. Without looking at it in detail, I couldn't tell you. But I agree with you that proration does imply that you get back to a whole.

Q Okay. Let's kind of go away from Kentucky and look at Florida. But let me make sure I understand. Now, when you guys are developing these rates in terms of this cost study, you're using all the states; right? You're using data from at least the states that you have data points for?

A Correct.

Q So Alabama information is in there, North Carolina information is in there, Florida information is in there, Kentucky information is in there, and you kind of use all of these numbers; right?

A Correct.

Q Okay. Mr. Shell, again, these are documents that were contained in the same discovery request, the responses to request for production of documents Number 32 that is Staff Exhibit 22 and BellSouth Confidential Stipulation-3.

Now, if I can just go to the very top one and let me ask you about that. We've got a total plant construction cost. There's a number of pieces of equipment, rectifiers and batteries and BDFBs put in. And yet as I understand it, this thing with the parentheses means that the amount already charged to the CLECs for this particular augment job is already well more than double the total plant construction cost; isn't that correct?

A Well, I'm not sure it's more than double. Are you saying the 18 --

Q The number in total not yet allocated to CLECs is --well, yeah, I'm sorry, not more than double, is already more than the total plant construction by -- I don't know what percent that is, but --

A Yeah, it's greater.

1	Q 20 percent maybe?
2	A Again, I apologize for not really understanding what
3	this represents. I need to find out what exactly this negative
4	in this column represents.
5	Q Well, I think it represents if you go and take a
6	look at the here, we have a number of CLECs, but one, two,
7	three, four, five, six, seven
8	MS. WHITE: I'm sorry. I'm going to object. I thin
9	Mr. Early is starting to testify here.
10	CHAIRMAN BAEZ: Mr. Early, were you about to testify
11	sir?
12	MR. EARLY: No.
13	CHAIRMAN BAEZ: Okay.
14	MR. EARLY: I'm just trying to figure out
15	CHAIRMAN BAEZ: Then please be careful with that.
16	MR. EARLY: Okay.
17	CHAIRMAN BAEZ: Thank you.
18	BY MR. EARLY:
19	Q I think we have 12 CLECs here. Yes, 12 CLECs. And
20	for each CLEC is it accurate to say that there is a total
21	charged to CLEC reflected on each one of those 12 data pages?
22	A Yes. And there's also a prorated share as well.
23	Q Okay. And if you add up for each of those 12 data
24	pages, the number that's shown in total charged to CLEC, don't
25	you get the number from Page 1 that is total not yet allocated

to CLECs plus total plant construction?

A Okay. You're saying the same math we used earlier? I'd have to check it, but if you've already done the math, I accept it, subject to check.

Q Okay. Let me have you take a look at the fourth document in that stack.

CHAIRMAN BAEZ: Mr. Early.

Q This is the LYHNFLOH, which I assume is Lynn Haven, Florida. And we have a number again in a parentheses, and yet if you go to the column entitled, "Total plant construction," there's nothing. There was no plant construction required here. So can you explain in that situation what it means when you have prorated share power plant construction with a number and total charged to CLEC with a number?

A You know, actually, I think -- I'm looking at my Exhibit WBS-4. And what it's showing is that we showed zero costs for that but we showed the amps. So this is actually a scenario where the CLEC was able to utilize the existing capacity of the central office power without actually paying a charge.

Q In the column entitled, "Prorated share power plant construction," if there was no power plant construction required for the incremental amps that that CLEC was being used, why was there a charge there? I'm looking at CLEC Number 1 data.

A Again, we're using this as a cost document. As far as the charging, I don't know if they charged this or not, but what I'm seeing based on this one is that BellSouth didn't do any power construction plant, so therefore, our total plant construction cost is zero. However, there was \$400 approximately worth of power capacity that was being used, so therefore, the amount not allocated or the amount not allocated here is -- I believe that's why it's negative because it's already -- I mean, there's nothing to allocate.

Q CLEC Number 1 data, where it says "CLEC Number 1 data," that's not a negative number; correct? That's a positive "X" number of dollars in the prorated share of power plant construction; correct?

A Yes. I'm sorry. I didn't know it was a question. Yes, that's a positive number.

Q So if the cost of providing that incremental amp of power was zero, why is there this additional "X" number of dollars charged to that CLEC for the prorated share of power plant construction?

- A Are you on Page --
- Q I'm on CLEC Number 1 data.

A Okay. What I'm saying is there is an actual cost for it regardless whether BellSouth had provisioned it or not provisioned it. But, you know, in looking at this scenario, I believe when it says negative total not yet allocated, which

means based on the total power plant construction for this job, that there's nothing to allocate it against, so therefore, it's negative.

And I believe based on that scenario, going back to the previous ones, to the extent BellSouth had existing capacity, say, in the rectifier, the batteries and so forth and we only added, say, \$100,000 of power plant construction but yet by the time we provisioned all the collocators they were using part of the capacity we already had in existence, so therefore, the amount not yet allocated would be negative because you've allocated all of the amounts you added for that specific request, and now you've gone into allocating what BellSouth already had in its network. I believe that's what this negative number in this scenario means based on looking at this one you just showed me.

Q Well, how about the positive number then on CLEC Number 1 data? Because that is a positive number.

A Well, there is a cost. I mean, I've got two different things. We have a cost on this page, CLEC 1 data, and we have over here a column labeled "Total not yet allocated," which are different.

Q And again, as with Kentucky, is it your testimony that the total charged to CLEC on these Florida documents were not nonrecurring charges that were actually charged to a CLEC? Is that your testimony?

A I think as I said before, no or I don't know is the answer, because I don't know how this actually was used. And I only looked at this from the standpoint of the costs that were incurred at the time, not necessarily how this was applied to anyone or if it was applied. So I really don't know.

Q Can I get you to go to eight more documents down? It's power plant data for ORLDFLCL, which I assume is Orlando. Can you confirm again that the number in total not yet allocated to CLECs is a sizable percentage which is a negative number? Can you confirm that that number is, in fact, a negative number?

A Yes, I can confirm that is negative. Yes.

Q So if you go through the individual CLEC data sheets and add together total charged to CLEC, you will come up with total plant construction cost plus this negative number; correct?

A That's correct. And again, based on the previous one you showed me, I feel fairly certain that what this represents is the fact that the CLEC has now not only utilized the power capacity in the construction that was implemented on this particular job in the CO, but they also used the capacity BellSouth has in its central office already set up, and that's why you get the negative allocation associated with it.

Q Well, the fact that we have construction going on and I think if you add up -- if you have a number of amps that have

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been requested, that's what caused BellSouth to undergo this power plant augment, isn't it? Isn't that why a power plant augment was performed?

Yes, that's correct. And we mentioned one other point, too, which may be key to this docket is that the number in parentheses really was not used in the study. What was used are the numbers that are on the CLEC data sheets.

If you add them up, they come up to this number; right?

They come up with the number as you stated before, Α yes. Well, all I'm saying is that this number in the parentheses was really not germane to the study. It was just there based on the calculation that was done, the numbers that were used. And I'm trying to verify for the Orlando CO that it just used the numbers on the data sheet, which would have been valid if I'm correct in stating that what has happened in this office and anytime you have a negative is that they have gone beyond using the power plant construction that was put in and using existing capacity in BellSouth's network and that's why it's negative.

And if I can, I think I was -- I don't want to speak out of turn, but I was reviewing the numbers. And I did verify for the Orlando office what the numbers that are actually used, and I won't say the number, are the total power plant construction and the requested DC amp shown in the

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1	CLEC-specific sheets. So those numbers the other number is
2	just there. Someone wanted to see it for some reason, but
3	again, what that represents is the fact that there was a
4	certain amount of power plant construction for this CLEC
5	request, and over and beyond that, they are now using other
6	power plant dollars. So that's why the negative amount there.
7	It's related directly to this number, not to that's why the
8	abnormal proration, like you said, should come to no greater
9	than zero.
10	Q So you are using the number off of the CLEC data
11	sheets?
12	A As far as the requested amps.
13	Q Oh, as far as the requested amps. And not the
14	dollars?

A Not the dollars.

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- Q Why are the dollars there?
- A Again, we're using the sheet that was there for the purposes -- we're only using it from a cost development standpoint. So I don't know what other use they had of this.
- Q Okay. Well, let me ask you a very specific question about this one. With regard to CLEC Number 12.
 - A Excuse me? CLEC number?
- Q Twelve. The CLEC that ordered that amount of power was AT&T Communications of the Southern States: correct?
 - A That's correct.

1	Q Okay. Is it your testimony that AT&T Communications
2	of the Southern States was not charged a nonrecurring charge of
3	the dollar amount reflected in the column entitled, "Total
4	charged to CLEC"?
5	MS. WHITE: Okay. I'm going to object because I know
6	that Mr. Shell has said on at least five or six occasions that
7	he does not know whether the CLECs were actually charged those
8	amounts in that column.
9	MR. EARLY: Well, I think if he doesn't know that
10	piece of information, then I think it reflects on the data
11	that's contained in this cost study and how rates are being set
12	pursuant to the cost study.
13	MS. WHITE: Well, then you can make that argument in
14	your brief.
15	CHAIRMAN BAEZ: Hold on.
16	MS. WHITE: I'm sorry.
17	CHAIRMAN BAEZ: Hold on, Ms. White. The question has
18	been asked, and Mr. Shell has answered that he doesn't know
19	what the ultimate use of those columns were. Do you agree with
20	that?
21	MR. EARLY: I believe he has said that as a general
22	proposition he does not know whether those are charges that
23	were actually billed to a CLEC. I think that's accurate.
24	CHAIRMAN BAEZ: That is correct.
25	MR. EARLY: And I was just trying to get him on

1	and those have always been fairly generic questions. This is
2	one where it deals with AT&T and the Southern States as to a
3	specific if his answer is no, then I'll be done with that.
4	If I can just ask him that question as to that specific CLEC.
5	CHAIRMAN BAEZ: As to that specific CLEC I'll allow
6	it. And we'll move on from that line as well, Mr. Early.
7	MR. EARLY: Okay.
8	BY MR. EARLY:
9	Q Mr. Shell, again, as to AT&T Communications of the
10	Southern States for the job reflected in CLEC Number 12 data
11	for central office ORLDFLCL, do you know whether that total
12	charged to CLEC was actually a charge against AT&T of the
13	Southern States?
14	A I do not know that. What I do know is that is a cost
15	that we incurred. Whether it was charged, I don't know. But
16	just let me make one more point, is that we did not use what
17	we used again for the cost study was the total power plant
18	construction for that CO as well as the requested amps total
19	for all the COs.
20	Q Mr. Shell, I'm handing out documents.
21	MR. EARLY: And this, as I understand it, Nancy, this
22	is a nonconfidential document, WBS-4?
23	MS. WHITE: Yes, that's fine. Nonconfidential.
24	BY MR. EARLY:

I just kind of want to figure out what this is. And

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Q

the first page of this document shows a figure -- well, this 1 isn't confidential. Okay. It shows a total power plant 2 3 construction cost for the BellSouth region, and I assume that 4 these are the 711 projects? 5 That's correct. 6 Okay. For those 711 projects, you have a total plant Q 7 construction cost of \$16,154,045, and total CLEC requested DC 8 amps of 37,656, for a plant construction cost per amp of \$429; 9 is that correct? 10 Α That's correct. 11 0

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Okay. Now, if I could -- could I have you go to the next page, which is Alabama? Alabama shows a total power construction cost per amp for Alabama of \$49.27. Why is that number so divergent from the region-wide number?

Because it depends on the equipment being ordered at Α the site, how much of it has been ordered and what type. You could get a rectifier with a cost requirement versus a battery. It may just be modern. It just depends on what is requested. And that's why we chose to get as many data points as possible to balance out the total.

If I can have you go to Page 18. That page just reflects -- Page 18 of WBS-4. That page just reflects that Georgia data was not included in the study; correct?

I don't think I have Page 18. Α

> MS. WHITE: If I may, I think it's just misfiled. Ιf

1	you look at the sixth page, that's page 18. I think it just
2	got mixed up in the copying.
3	MR. EARLY: Yeah, I think you're right.
4	THE WITNESS: Yes. I see it now.
5	BY MR. EARLY:
6	Q Yeah, Page 18 actually in this case comes between
7	Page 5 and 6. Sorry about that.
8	A Got it. Okay.
9	Q But that just reflects that Georgia data was not
10	incorporated into the overall cost study; correct?
11	A Correct.
12	Q Florida is on Page 6, real Page 6, and it reflects a
13	power construction cost per amp of \$527.29 for Florida;
14	correct?
15	A That's correct.
16	MR. EARLY: Just give me one second.
17	CHAIRMAN BAEZ: Mr. Early.
18	MR. EARLY: Yes.
19	CHAIRMAN BAEZ: If you've got a lot of cross left,
20	it's a good time to find a breaking point.
21	MR. EARLY: I think I am pretty much to the end.
22	BY MR. EARLY:
23	Q Let me ask you one question about you indicated in
24	some of your testimony that Paragraph 51 of the FCC order
25	authorized BellSouth to recover costs related to the

construction of power plants as a space preparation cost; is that accurate?

A That's correct.

Q All right. Let me hand you a copy of what I believe to be the paragraph that you're referring to. This is FCC 99-48, First Report and Order and Further Notice of Proposed Rulemaking, released March 31, 1999. And under the section on Page 4789 entitled, "Space Preparation Cost Allocation," is that the Paragraph 51 that you're referring to?

A Yes, it is.

Q Okay. So on the fifth line -- well, starting on the fourth line, it says, if an incumbent LEC implements cageless collocation arrangements in a particular central office that requires air conditioning and power upgrades, the incumbent may not require the first collocating party to pay the entire cost of preparation. Does the term "power upgrades" as used in that paragraph, in your mind, include augments to the power plant for the central office?

A Yes.

Q So it's something more than the wall units and the switches, the little light switches and stuff like that that you would use in preparing a space for use by a person; is that correct?

A Yes.

Q Now, do you know if the Florida Public Service

Commission has ever taken any position with regard to whether power plant costs are to be considered in the cost of space preparation?

A In a previous arbitration, they accepted our costs similar to what we're providing to now. We've updated somewhat with factors, but I can't speak for the Commission as to whether they, you know, specifically accepted it. I can't refer to an order or anything off the top of my head that references it.

Q Okay. Well, let me hand you a document and have you just take a look at it and see if that causes you to give any further thought as to whether or not these costs are recoverable as space preparation costs. This is an order entered in -- and I've just given you the excerpt, but it's in Docket Number 960757-TP, order issued April 29, 1998. And if I can refer you to Page 153 of that order, which is Page 2 of the document I just gave you, there's a section entitled, "Power." Do you see that?

A Yes. Yes, I do.

Q And there's a discussion of power. And if you go to Page 155, which is the last page -- and if you need to read the rest of it. that's fine.

A I may. But you can go ahead and ask the question if you'd like.

Q There's the sentence in the very last paragraph prior

to the conclusion that says, "Power plant investment shall not be included in any space preparation charge assessed to a collocator." Do you see that sentence?

- A Not yet.
- Q Okay.

- A Where is it in the sentence?
- Q It's in the paragraph immediately prior to the paragraph headed "Conclusion," and it's seven lines down starting with "Therefore."

A Okay. I'm with you. Okay. What this is referring to is at this point in time we had the individual case basis, ICB, arrangements. And to me, what this paragraph is saying is up front it's basically validating that it's appropriate to apply these charges on a recurring basis, and that we say as power plant expansions are more appropriately recovered in recurring because they will benefit both BellSouth and future collocators.

And then it goes on to say, "Therefore, power plant investment shall not be included in any space prep charge."

And I can go back and look at what they're referring to, but I'm pretty sure they're referring to our -- one time when we did our ICBs, we had a space prep nonrecurring one-time fee.

And I think what this is saying is, you know, forget the one-time nonrecurring fee, it's more appropriate to have it all included in a recurring power charge as opposed to a one-time

ICB space prep charge.

Q Okay. Let me ask you one question about that and I think I'm done. DC power is charged or is billed to CLECs by a recurring charge --

A That's the way BellSouth does it, yes.

Q -- per amp, and that's what this order -- that's what this PSC order says you should do; correct?

A I think it said that it's more appropriately recovered in recurring charge. I didn't really definitively say --

Q It's not a space preparation charge, it's a per amp --

A Yes. So it would be more appropriate, yes.

Q So when you referred to FCC Paragraph 51 in your testimony as being -- as influencing somehow the cost study, how did FCC 51 -- FCC Paragraph 51 in the exhibit I gave you, how does that bear into the reflection or into the calculation of the per amp cost in your cost study? Because you referred to it several times.

A Yeah, it had a big influence. At the time this order came out, there was a lot of debate on going to the FCC and the Commission regarding intervals and having nonrecurring charges that were considered barriers to entry.

So what BellSouth did, you know, we began developing standard rates. Before then we didn't have it. And given this

1	order, it gave us the ability and we were already prorating
2	power costs as well as augment costs. We said, to develop a
3	standard rate, let's just prorate, get all the data we've done
4	previously for all these augments and instead of prorating by
5	CO, let's do a total 711 jobs, as many as we can get to develop
6	this cost. So that FCC order, again pushing the intervals,
7	pushing the lower nonrecurring charges led us to do this. And
8	based on the fact we were doing it already and that's what they
9	wanted us in other words, not have a one charge that would
10	be so much greater for one party and someone else not pay, we
11	chose to use this method of augments to using the data we had
12	and just develop a one set standard rate fee so that it would
13	be decisive and no questions about what the charge would be.
14	So this was very instrumental in really leading us to our
15	methodology.
16	MR. EARLY: I have no further questions of Mr. Shell.
17	Thank you very much.
18	CHAIRMAN BAEZ: Thank you, Mr. Early. We're going to
19	break for an hour and be back here at 2:15.
20	(Lunch recess.)
21	(Transcript continues in sequence with Volume 3.)
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1 2	STATE OF FLORIDA) : CERTIFICATE OF REPORTER COUNTY OF LEON)
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4	I, TRICIA DeMARTE, RPR, Official Commission Reporter, do hereby certify that the foregoing proceeding was heard at
5	the time and place herein stated.
6	IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been
7	transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.
8	•
9	I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorneys or counsel connected with the action, nor am I financially interested in
10	connected with the action, nor am I financially interested in the action.
11	DATED THIS 9th DAY OF FEBRUARY, 2004.
12	DATED THIS SET DAT OF TEDROART, 2004.
13	Inicia Demarte
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15	FPSC Official Commission Reporter (850) 413-6736
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