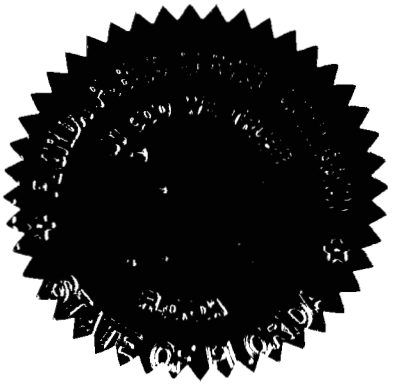
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

PETITION OF COMPETITIVE CARRIERS FOR COMMISSION ACTION TO SUPPORT LOCAL COMPETITION IN BELLSOUTH TELECOMMUNICATIONS, INC.'S SERVICE TERRITORY. — DOCKET NO. 981834-TP

PETITION OF ACI CORP. d/b/a ACCELERATED CONNECTIONS, INC. FOR GENERIC INVESTIGATION TO ENSURE THAT BELLSOUTH TELECOMMUNICATIONS, INC., SPRINT-FLORIDA, INCORPORATED, AND GTE FLORIDA INCORPORATED COMPLY WITH OBLIGATION TO PROVIDE ALTERNATIVE LOCAL EXCHANGE CARRIERS WITH FLEXIBLE, TIMELY, AND COST-EFFICIENT PHYSICAL COLLOCATION. — DOCKET NO. 990321-TP



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VOLUME 1

Pages 1 through 209

PROCEEDINGS:	HEARING
BEFORE:	CHAIRMAN BRAULIO L. BAEZ COMMISSIONER J. TERRY DEASON COMMISSIONER LILA A. JABER COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER CHARLES M. DAVIDSON
DATE:	Wednesday, January 28, 2004
TIME:	Commenced at 9:30 a.m. Concluded at 5:10 p.m.

PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	TRICIA DeMARTE, RPR Official FPSC Reporter (850) 413-6736

APPEARANCES:

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TRACY HATCH, ESQUIRE, 101 North Monroe Street, Suite 700, Tallahassee, Florida 32302-1876; and E. GARY EARLY, ESQUIRE, Messer, Caparello & Self, P.A., P. O. Box 1876, Tallahassee, Florida 32302-1876, appearing on behalf of AT&T Communications of the Southern States, LLC, and TCG Florida, Inc.

CHARLES E. (Gene) WATKINS, ESQUIRE, Covad Communications Company, 1230 Peachtree Street, N.E., 19th Floor, Atlanta, Georgia 30309, appearing on behalf of Covad Communications Company.

SCOTT A. KASSMAN, ESQUIRE, FDN Communications, 390 North Orange Avenue, Suite 2000, Orlando, Florida 32801, appearing on behalf of FDN Communications.

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APPEARANCES CONTINUED:

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ADAM TEITZMAN, ESQUIRE, BETH KEATING, ESQUIRE, and JASON ROJAS, ESQUIRE, FPSC Office of General Counsel, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, appearing of behalf of the Florida Public Service Commission Staff.

I N D E X

WITNESSES

NAME:	PAGE NO.
EDWARD FOX	
Stipulated Prefiled Direct Testimony Inserted	32
JAMES H. VANDE WEIDE	
Stipulated Prefiled Direct Testimony Inserted	38
Stipulated Prefiled Surrebuttal Testimony Inserted	100
ANTHONY FLESCH	
Stipulated Prefiled Direct Testimony of A. Sovereign as Adopted by A. Flesch Inserted	126
Stipulated Prefiled Surrebuttal Testimony of A. Sovereign as Adopted by A. Flesch Inserted	145
TERRY MURRAY	
Stipulated Prefiled Surrebuttal Testimony Inserted	153
PATRICIA S. LEE	
Stipulated Prefiled Rebuttal Testimony Inserted	185
CERTIFICATE OF REPORTER	209

EXHIBITS

NUMBER:		ID.	ADMTD.
1	Sprint Stip-1	29	29
2	Sprint Stip-2	29	29
3	Verizon Stip-1	29	29
4	Verizon Stip-2	29	29
5	(Late-Filed)Various Responses to Staff's Requests	29	29
6	Miscellaneous Stip	29	29
7	BellSouth Stip-1	29	29
8	BellSouth Stip-2	29	29
9	Miscellaneous Stip-2	29	29
10	AT&T Stip-1	29	29
11	AT&T Stip-2	29	29
12	AT&T Stip-3	29	29
13	AT&T Stip-4	29	29
14	Sprint Stip-PH2	29	29
15	BellSouth Stip-PH2	29	29
16	AT&T Stip-PH2	29	29
17	AT&T Stip-PH2-2	29	29
18	Verizon Stip-PH2	29	29
19	Murray Deposition	29	29
20	TF-1	29	29

EXHIBITS (Continued)

NUMBER:		ID.	ADMTD.
21	JVW-1	29	29
22	(Confidential)BellSouth Stip-1	29	29
23	(Confidential)AT&T Stip-1	29	29
24	(Confidential)Sprint Stip-1	29	29
25	(Confidential)Verizon Stip-1	29	29
26	Late-Filed-PH2	29	29
27	EBF-2	31	31
28	JVW-1 and JVW-2	37	37
29	Surrebuttal JVW-1 through JVW-6	37	37
30	AES-1 and AES-2	124	124
31	TLM-1 through TLM-4	152	152
32	PSL-1 through PSL-5	184	184

P R O C E E D I N G S

CHAIRMAN BAEZ: Call the hearing to order. Mr. Teitzman, can you read the notice, please.

MR. TEITZMAN: Pursuant to notice issued January 5th, 2004, this time and place has been set for a hearing in Docket Numbers 981834-TP, petition of competitive carriers for Commission action to support local competition in BellSouth Telecommunications, Inc.'s service territory, and 990321-TP, petition of ACI Corp. doing business as Accelerated Connections, Inc. for generic investigation to ensure that BellSouth Telecommunications, Inc., Sprint-Florida, Incorporated, and GTE Florida Incorporated comply with obligations to provide alternative local exchange carriers with flexible, timely, and cost-efficient physical collocation.

CHAIRMAN BAEZ: Thank you, Mr. Teitzman. And we'll take appearances.

MS. WHITE: Nancy White and Phil Carver for BellSouth Telecommunications, Incorporated.

MS. MASTERTON: Susan Masterton for Sprint-Florida, Incorporated, and Sprint Communications Company Limited Partnership.

MR. McCUAIG: Dan McCuaig for Verizon Florida Incorporated. I would also like to enter an appearance for Catherine Ronis who could not make it this morning but, weather permitting, will be here tomorrow.

CHAIRMAN BAEZ: Okay.

MR. KASSMAN: Scott Kassman on behalf of FDN Communications.

MR. HATCH: Tracy Hatch appearing on behalf of AT&T Communications of the Southern States, LLC; also appearing with me is E. Gary Early of the Messer Law Firm.

MR. WATKINS: And Gene Watkins for Covad Communications.

CHAIRMAN BAEZ: Thank you.

MR. TEITZMAN: Adam Teitzman, Jason Rojas, and Beth Keating on behalf of the Florida Public Service Commission.

CHAIRMAN BAEZ: Thank you, Mr. Teitzman. Any preliminary matters? Just for your information, Commissioner Jaber is participating by phone today. Mr. Teitzman, do we have any other preliminary matters?

MR. TEITZMAN: There are no preliminary matters.

CHAIRMAN BAEZ: Okay. And we can move on to some procedural matters, and we have a motion in limine.

MR. TEITZMAN: That is correct, Commissioner. On January 26th BellSouth filed a motion in limine which seeks to limit the scope of evidence during the proceeding, specifically evidence to how power charges should be structured. Due to how recently this motion was filed, staff would recommend the parties be granted five to ten minutes to argue the merits of the motion. And at the conclusion of the parties' arguments,

staff has prepared an oral recommendation.

CHAIRMAN BAEZ: Thank you, Mr. Teitzman. Five, ten minutes, Mr. Carver.

MR. CARVER: Yes, sir, that's correct. Thank you. I did have a conversation just a couple of minutes ago with counsel for Covad, so we may not have a dispute on this one, but I'm not sure because I'm not sure what he intends to do on cross-examination. So I'll just go ahead and lay out the issue and maybe we can have a discussion about it.

In Covad's prehearing statement, essentially they said that they agreed with AT&T except for one additional issue that they raise. And in their prehearing statement, they said that they asked the Commission to separate the DC power portion of the charge for power provided to the CLECs from the infrastructure portion of the charge so that the infrastructure charge would have a separate element.

CHAIRMAN BAEZ: Mr. Carver, is that the language on Page 12 or beginning on Page 12 that you're referring to of the prehearing order?

MR. CARVER: Yes, that's the language.

CHAIRMAN BAEZ: Okay.

MR. CARVER: And basically we don't believe that that should be part of this phase because it was not only part of Phase I, it was discussed extensively and the Commission has already ruled upon it. And the way it came up was Issue 6,

which has to do with power structure. The way it was framed it was fused amp versus used amp, but a proposal came up during the hearing to split the power charges out in this way. The witnesses were examined on this. In Covad's brief, I believe they filed the position that they believe the charges should be split this way. In the order that the Commission entered on Phase I, however, it did not do that. Instead it ordered that power be revealed on a used basis, but there would be a single charge.

Covad then filed for reconsideration and that motion is still pending. Covad has not filed a witness in this case, so I can't look at their prefiled testimony to see what they intend to put in that way. But in Phase I, they conducted extensive cross-examination in part on this issue but also on some other issues. So I anticipate that there will be quite a bit of cross-examination in this phase as well, which is why I wanted to raise this at the outset, because in as much as this issue was part of Phase I, and it's already been ruled upon, we do not believe it's appropriate for Covad to inject it into Phase II, particularly when it's not on the issue list, but more so even in light of the fact that it's already been ruled upon. So that's the basis for our motion in limine. And it would apply obviously to cross-examination questions or other testimony, but also we did answer some discovery -- I believe they were interrogatories -- that go to this issue. So we

would request that those also be excluded from testimony -- or from evidence.

CHAIRMAN BAEZ: Mr. Watkins.

MR. WATKINS: Yes. Good morning. We did talk about this this morning. I'd like to address BellSouth's motion on two levels, one generally, and that is, the propriety of a motion in limine in a setting of this sort. According to the Trawicks Florida Practice and Procedure, motions in limine typically should only be used in the setting of a jury trial, there to avoid the debate about a piece of evidence and the prejudice that would be associated with that in the eyes of the jury. When you're dealing with fact finders who are perfectly capable of determining relevance immediately and ignoring prejudicial evidence, a motion in limine is inappropriate.

But on the specific issue, Covad included in its prehearing statement the -- in Line 9A that there be a monthly recurring charge and a nonrecurring charge for the infrastructure portion of power because we have a pending motion for reconsideration asking that that be the case. If we don't have that in the list, should we win the motion for reconsideration, then there will be no price to assign to those elements. That's the only reason we did that.

We are perfectly -- we are going to limit ourselves to the issues before the Commission in this phase of the collocation docket, and we are happy to agree with BellSouth on

that point. We will be using the numbers that were provided to us in response to -- or BellSouth's and Verizon's supplemental discovery responses identifying the nonrecurring charges, that they would apply to the infrastructure portion of power charges because it's relevant to determining how quickly they will get paid for that. If you know what they are charging on a monthly basis and you know what the infrastructure portion of that is, then you can determine how quickly they will get paid and whether they are properly applying depreciation.

CHAIRMAN BAEZ: Mr. Watkins, was that not -- was that information not in the record already under the Phase I docket?

MR. WATKINS: No, no.

CHAIRMAN BAEZ: I mean, if I understand you correctly, you're trying to preserve your position on reconsideration and trying to get this information or you would intend on trying to use this information to clarify some eventual decision on reconsideration. Is that accurate or --

MR. WATKINS: It was put in the prehearing statement to preserve that in the event that we did win.

CHAIRMAN BAEZ: Right.

MR. WATKINS: But that -- the portion of BellSouth's motion that I have a problem with is the requests that the Commission preclude the use of the infrastructure numbers that they provided us in response to our motion to compel. That is a fixed number that they are using to create in part their --

the pricing that they're recommending in this phase. And I'll be happy -- I don't want to -- it's hard to talk about this in the abstract because I've actually already handed Sprint and BellSouth the compilation exhibit that I intend to use.

If they have got an objection to that exhibit on this basis, we really should be debating that because that's where I'm going to be using the information that they are saying would be inappropriate in a general sense.

CHAIRMAN BAEZ: So we haven't heard -- I mean, not to broaden this, but has Verizon and Sprint seen these exhibits, and do they have any comment? I mean, you're suggesting -- you're trying to spread this across the whole -- all the ILECs?

MR. WATKINS: No. This is -- the numbers that I will be using are from Verizon and BellSouth in response to our discovery that was compelled.

CHAIRMAN BAEZ: No, I understand that. I did ask you a question. I mean, this information wasn't available under the first phase of the proceedings.

MR. WATKINS: This information was provided to Covad yesterday -- or the day before yesterday.

CHAIRMAN BAEZ: All right. Mr. Carver, do you have a response?

MR. CARVER: Yes, briefly. In terms of why I filed the motion for limine, I thought it was better to handle this up front rather than waiting until the first question.

CHAIRMAN BAEZ: And I'm going to ask you a question on that, but go ahead.

MR. CARVER: Okay. I mean, procedurally, you know, I'm not trying to split hairs here. I thought it was just better to raise this up front rather than waiting until we got into the hearing, and then the first time they attempt to introduce something or to ask a question that's improper, then objecting and having an argument. I thought it was better to raise it up front so that we could all sort of understand the parameters. So rather than doing it for technical reasons, I did it because I thought it would be simply more efficient and make things run a little more smoothly if we talked about it before we began.

In terms of the discovery, the actual question we responded to, which is Interrogatory Number 13, is, if the Commission requires BellSouth to offer a nonrecurring charge to recover its infrastructure costs on a per ampere basis, how much should the charge be? And this is something that was discussed in Phase I. I mean, this argument that we are overcharging for infrastructure if we use a recurring charge because we would recover in perpetuity is something that was specifically raised in questions that Mr. Watkins asked the BellSouth witnesses. The Commission heard that. And again, this came up in the context of them essentially asking how we would do this particular power charge if the Commission ordered

something other than what it's already ordered. So given that, we don't think it's really appropriate.

Now, I would mention he did mention that we were compelled to respond to these. There were about 12 interrogatories and production requests that they propounded that we thought were objectionable. We objected to all of them. Their motion to compel was denied as to most of them, but there were four of them that we were told to respond to. And in the order granting their motion to compel, it specifically noted, improperly so, that discoverable issues are broader than admissible issues. So in other words, the fact that we had to produce it doesn't mean that it's necessarily part of Phase II.

CHAIRMAN BAEZ: No, and I understand that. I want to focus on the point that Mr. Watkins raised, and I want to understand exactly what your response is. Is it your position that the information that you provided in this particular -- as part of this particular discovery request is already in the record such that it would make discussion of having information in the record upon an eventuality or a possible eventuality necessary?

MR. CARVER: Generally, there was a discussion on this topic before the Commission ruled on it. In terms of this particular information, this particular information is not in the record because basically we developed it in response to a

request from Covad. But we don't think it was an appropriate issue to be -- to address at this juncture for this reason. The way that we developed the power charge is basically augments. And there's been a lot of discussion, you know, in the testimony that's been filed in a lot of cross-examination in Phase I about the way that we do that, which is, essentially, we develop the infrastructure charge by looking at augments that have been done in different places.

What Covad asked us to do was to say, okay, how would we develop a charge, not the charge that we're advocating and not the charge that any party has advocated in this phase and not a charge that's supported by any testimony, but to say in its essence, if the Commission reversed itself on Phase I, what we would we do? And when we originally answered the discovery, we said, we don't really know because we haven't done a cost study, and you'd really need to do a cost study. And when -- we were compelled to produce an answer with the caveat that we could qualify it however we wanted to. So what we did was we said, well, we took the rate that we had, and we've done our best sort of back of the envelope kind of calculation, and this is a number that we think is probably defensible, probably not the -- you know, candidly, it's probably not the number that we would yield if we had to do a full cost study, but we don't really know because we didn't do the full cost study.

So at this point I take it what they're arguing is

that if the Commission reverses itself on the Phase I on reconsideration, then they want this to go into the record because they would want the Commission to order a rate based on this thing that we did in a very short time period in response to this issue that again we don't even really believe is relevant. So that's a long answer. But I guess the direct answer is that this information is not in the record, the specific cost information, but we don't believe it should be.

CHAIRMAN BAEZ: Fair enough. Mr. Watkins, a question for you. Based on your understanding of our process, assume for a moment that we try and keep the lines clean. You've as much as agreed that the issue, at least the issue surrounding this information, has already been ruled on, and you've said as much as you're trying to keep this in the record in the event that a reconsideration is ruled unfavorably. Is there any other process available to address this information or address, you know, the fallout of this question if the Commission would reconsider its decision on the issue, to your knowledge?

MR. WATKINS: Chairman, I want to answer that question, but it misconstrues, I think, what I was trying to explain.

CHAIRMAN BAEZ: Okay.

MR. WATKINS: We put that recommendation in our prehearing statement to preserve something. We are using the evidence provided for a different issue. It provides us the

basis of the monthly -- we are not proposing a nonrecurring charge for our separate power infrastructure. That was ruled on. That's the Phase I issue. We're not talking about that in this proceeding. We are addressing the underlying basis for the monthly recurring charge for power that Verizon and BellSouth are proposing. One of the bases for that is the infrastructure portion of the power charge. Now that I have that number, I intend to use it in cross-examination to get at some of the failings of the cost studies and the inputs to those that BellSouth and Verizon used to develop their monthly recurring power charges. That is squarely in this phase of the proceedings.

It's that portion of BellSouth's motion in limine that Covad has a particular problem with, and that is the exclusion of a useful number that was originally propounded, I will admit, by Covad in order to address its position that there should be a nonrecurring charge, but that's not what we're going to use it for in this proceeding. And we will -- again, we will agree to stay away from Phase I issues.

CHAIRMAN BAEZ: Okay. Thank you, Mr. Watkins. Mr. Teitzman, does staff have a recommendation?

MR. TEITZMAN: Chairman, the legal standard of a motion in limine is whether the probative value of the evidence sought to be excluded is outweighed by the danger of unfair prejudice. Further, it's been Commission policy to allow

evidence and simply give it the weight which it is due. Accordingly, staff would recommend denying the motion, and staff would also note that denial of the motion in no way precludes BellSouth from raising appropriate objections during cross-examination.

CHAIRMAN BAEZ: Thanks, Mr. Teitzman. Mr. Carver, I appreciate your efforts to try and clear this up once and for all. I think based on Mr. Watkins' assertions that Covad is in agreement that it shouldn't be used for the issues, certainly the purpose for which it was -- the information was elicited, I'm convinced that there might be an alternate use or at least we have to test that. And I think that as Mr. Teitzman has suggested, you still have the ability to object to a particular question or a particular use at the time. So I'm going to deny the motion in limine. And we'll go on this -- I mean, on a question-by-question basis.

Mr. Watkins, you know where your limitations are, and I expect you to follow them. All right. Thank you, gentlemen.

Mr. Teitzman, do we have anything -- any other procedural matters?

MR. TEITZMAN: There are no other procedural matters. I would like to ask, would you like to move on to exhibits or the stipulation of witnesses next?

CHAIRMAN BAEZ: Well, let's take the stipulated exhibits first, and then we'll move on to witnesses in order so

that we can go on excusing them as we get done.

MR. TEITZMAN: Certainly. Before I begin, staff would just like to note, and this was discussed at the prehearing conference, that the first 13 exhibits that staff will be entering this morning are the same or identical exhibits entered in the first phase hearing.

CHAIRMAN BAEZ: I guess we're waiting on confirmation from the parties; is that --

MR. TEITZMAN: Well, I just wanted to reiterate what was discussed.

CHAIRMAN BAEZ: Oh, okay.

MR. TEITZMAN: I should mention as well that the exhibits were sent to the parties approximately two days ago, and staff received no objections to the exhibits, and that's all the exhibits we'll be entering this morning.

CHAIRMAN BAEZ: All right. So then let's -- do we need to readmit them or no? Mr. Teitzman, do we need to readmit them?

MR. TEITZMAN: Yes, we'd like to do so for efficiency and to align the numbers correctly.

CHAIRMAN BAEZ: All right. Then let's get started.

MR. TEITZMAN: The first exhibit we'd like to have entered in is Hearing Exhibit Number 1. It's titled, "Sprint Stip-1," and it consists of Sprint's responses to staff's first through seventh set of interrogatories.

CHAIRMAN BAEZ: All right. Show Exhibit 1 -- or the exhibit referred to as Sprint Stip-1 marked as Exhibit Number 1 and admitted without objection.

MR. TEITZMAN: Exhibit 2 is titled, "Sprint Stip-2," and it consists of Sprint's responses to staff's first through eighth request for production of documents.

CHAIRMAN BAEZ: Show Sprint's Stip-2 marked as Exhibit 2 and admitted without objection.

MR. TEITZMAN: The third exhibit staff will be entering is entitled, "Verizon Stip-1," and it consists of Verizon's responses to staff's first through ninth request for production of documents.

CHAIRMAN BAEZ: Show that marked as Exhibit 3 and admitted without objection.

MR. TEITZMAN: The next exhibit is Verizon Stip-2, and it consists of Verizon's responses to staff's first through ninth set of interrogatories.

CHAIRMAN BAEZ: Show Verizon Stip-2 marked as Exhibit Number 4 and admitted without objection.

MR. TEITZMAN: The fifth exhibit is -- well, we'll title it, "Various Responses to Staff's Requests," and it consists of Sprint, Verizon, BellSouth, and AT&T's responses to staff's eighth, ninth, and tenth set of interrogatories and production of documents.

CHAIRMAN BAEZ: And just so -- it's a late-filed

exhibit; is that -- it's identified as a late-filed exhibit?

MR. TEITZMAN: It is. It is identified as a late-filed exhibit.

CHAIRMAN BAEZ: Okay. I just wanted to make sure I got the right one.

MR. TEITZMAN: It was identified as a late-filed exhibit in the first phase. Hence --

CHAIRMAN BAEZ: Okay. Show the exhibit marked as Exhibit Number 5 and admitted without objection.

MR. TEITZMAN: Exhibit 6, entitled, "Miscellaneous Stip," consists of Covad, FDN, and Supra's responses to staff's first request for production of documents and first set of interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as Miscellaneous Stip marked as Exhibit Number 6 and admitted without objection.

MR. TEITZMAN: The next exhibit is BellSouth Stip-1, and it consists of BellSouth's responses and objections to staff's first through eighth request for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as BellSouth Stip-1 marked as Exhibit Number 7 and admitted without objection.

MR. TEITZMAN: The eighth exhibit is BellSouth's Stip-2, and it would consist of BellSouth's responses and

objections to staff's first through seventh set of interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as BellSouth Stip-2 marked as Exhibit Number 8 and admitted without objection.

MR. TEITZMAN: Staff's stipulated exhibit, this would be Number 9, is entitled, "Miscellaneous Stip-2," and it consists of AT&T, Verizon, and Sprint's responses to staff's interrogatories and production of documents.

CHAIRMAN BAEZ: Show Miscellaneous Stip-2 marked as Exhibit 9 and admitted without objection.

MR. TEITZMAN: Exhibit Number 10 is entitled, "AT&T Stip-1," and it consists of AT&T's responses to staff's first through fourth set of interrogatories and first and second requests for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as AT&T Stip-1 marked as Hearing Exhibit Number 10 and admitted without objection.

MR. TEITZMAN: Exhibit 11 is entitled, "AT&T Stip-2," and it would consist of AT&T responses to Sprint and Verizon interrogatories and request for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as AT&T Stip-2 marked as Exhibit Number 11 and admitted without objection.

MR. TEITZMAN: The next exhibit is entitled, "AT&T

Stip-3," and it consists of BellSouth and Verizon's responses to AT&T's request for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as AT&T Stip-3 marked as Hearing Exhibit 12 and admitted without objection.

MR. TEITZMAN: Exhibit 13 this morning is entitled, "AT&T Stip-4." It consists of BellSouth, Sprint, and Verizon's responses and objections to AT&T's interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as AT&T Stip-4 marked as Exhibit 13 and admitted without objection.

MR. TEITZMAN: I'd just like to note before we enter this next exhibit that this is the beginning of the Phase II exhibits. 14 is entitled, "Stip-PH2" -- oh, "Sprint Stip-PH2," I apologize. It consists of Sprint's responses to Covad, to staff, and to AT&T and Verizon request for production of documents and interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as Sprint Stip-PH2 marked as Exhibit Number 14 and admitted without objection.

MR. TEITZMAN: Exhibit 15 is BellSouth Stip-PH2 which consists of BellSouth's responses to AT&T, Covad, Sprint, staff, and Verizon's interrogatories and request for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as BellSouth Stip-PH 2 marked as Exhibit Number 15 and without

objection admitted.

MR. TEITZMAN: The 16th exhibit this morning is entitled, "AT&T Stip-PH2," and it consists of AT&T's responses to staff and Verizon's interrogatories.

CHAIRMAN BAEZ: Show that marked as Exhibit Number 16 and admitted without objection.

MR. TEITZMAN: Exhibit 17, AT&T Stip-PH2-2, consists of AT&T's responses to staff's fourth through sixth request of production of documents and AT&T's response to Verizon's third request for production of documents.

CHAIRMAN BAEZ: Show the exhibit identified as AT&T Stip-PH2-2 marked as Exhibit Number 17 and admitted without objection.

MR. TEITZMAN: Exhibit 18 entitled, "Verizon Stip-PH2," and it consists of Verizon's responses to AT&T, Covad, and staff's interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as Verizon Stip-PH2 marked as Exhibit Number 18 and admitted without objection.

MR. TEITZMAN: The next exhibit we'll entitle, "Murray Deposition," and it's the deposition transcript taken on January 16th, 2004 of Witness Terry Murray.

CHAIRMAN BAEZ: Show the exhibit identified as the January 16th, 2004 deposition transcript of Witness Terry Murray marked as Exhibit Number 19 and admitted without

objection.

MR. TEITZMAN: We'll identify the next exhibit as TF-1, and it is the Tony Flesch deposition transcript taken on January 21st, 2004, including late-filed exhibits.

CHAIRMAN BAEZ: The exhibit identified as TF-1, the January 21st, 2004 deposition transcript of Witness Tony Flesch, identified as Exhibit 20 and admitted into the record without objection.

MR. TEITZMAN: Exhibit 21 is titled, "JVW-1." It is the December 3rd, 2003 deposition transcript of James Vande Weide.

CHAIRMAN BAEZ: Show the exhibit identified as JVW-1, the December 3rd, 2003 deposition transcript of James H. Vande Weide, is identified as Hearing Exhibit Number 21 and admitted to the record without objection.

MR. TEITZMAN: Chairman, the next series of exhibits are to be marked "Confidential." The first of the confidential exhibits would be BellSouth Confidential Stip-1, and it consists of BellSouth's responses to staff and AT&T's production of documents.

CHAIRMAN BAEZ: Show the document identified as BellSouth Confidential Stip-1 marked as Confidential Exhibit Number 22 and admitted to the record.

MR. TEITZMAN: The next exhibit is entitled, "AT&T Confidential Stip-1," and it consists of AT&T's confidential

responses to Verizon and staff and Sprint's set of interrogatories.

CHAIRMAN BAEZ: Show the document marked AT&T Confidential Stip-1 identified as Hearing Exhibit Confidential 23 and admitted to the record.

MR. TEITZMAN: The next exhibit, Exhibit Number 24, is entitled, "Sprint Confidential Stip-1," and it consists of Sprint's confidential responses to AT&T and staff's request for production of documents and interrogatories.

CHAIRMAN BAEZ: Show the document identified as Sprint Confidential Stip-1 marked as Confidential Exhibit Number 24 and admitted to the record.

MR. TEITZMAN: The next exhibit is the last of the confidential exhibits from staff this morning. It's entitled, "Verizon Confidential Stip-1." It consists of Verizon's confidential responses to AT&T and staff's interrogatories and requests for production.

CHAIRMAN BAEZ: Show Verizon Confidential Stip-1 marked as Confidential Exhibit 25 and admitted to the record.

MR. TEITZMAN: The next exhibit is titled, "Late-Filed-PH2," and it consists of Covad and AT&T's responses to Verizon and staff's request for production of documents and interrogatories.

CHAIRMAN BAEZ: Show the exhibit identified as Late-Filed PH2, responses from various parties, marked as

Exhibit Number 26 and admitted to the record.

MR. TEITZMAN: I'm happy to say that is the end of staff's exhibits.

(Exhibits 1 through 26 marked for identification and admitted into the record.)

CHAIRMAN BAEZ: Okay. And we'll take the stipulated witness exhibits along with the witness -- I guess we can move on to the witnesses now; right?

MR. TEITZMAN: I'm sorry, Commissioner.

CHAIRMAN BAEZ: We can move on to the witnesses now; right?

MR. TEITZMAN: Yes. We could either move on to the stipulated witnesses or there are some issues regarding witness order, whichever you'd like to take up first.

CHAIRMAN BAEZ: Let's get the witness order straight. I know that Sprint wants to switch Witness Farrar and Davis in order.

MS. MASTERTON: Yes, Commissioner.

CHAIRMAN BAEZ: Okay. No objections from the other parties? Very well. We'll shift on the fly on that one. And Verizon is requesting the panel not be called to testify until tomorrow.

MR. McCUAIG: That's correct, as a courtesy to Ms. Ronis who wasn't able to make it here today.

CHAIRMAN BAEZ: Very well. We'll try and deal with

everybody else's weather as best we can. That will be fine. No objections have been raised; correct? All right. We'll call them up -- is there a time certain that they will be here, or can we just line them up as first witnesses tomorrow? Would that be --

MR. McCUAIG: First witnesses tomorrow is fine. The witnesses are here. It's Catherine Ronis, my co-counsel/lead counsel, who is not here yet.

CHAIRMAN BAEZ: Very well. We will take the witness panel, Bailey and Ellis, sponsored by Verizon up first thing tomorrow.

MR. McCUAIG: Thank you, Chairman.

CHAIRMAN BAEZ: Let's move on to stipulated witnesses.

MR. TEITZMAN: Chairman, there are six witnesses that have been stipulated by the parties. If you'd like, I can list off the witnesses, or we can take them one by one.

CHAIRMAN BAEZ: Let's take them one by one so we can get -- and I'm not -- they do have exhibits, right, most of them?

MR. TEITZMAN: That would be correct.

CHAIRMAN BAEZ: Okay. So then let's take them one by one starting with Mr. Fox.

MS. MASTERTON: Commissioner, Sprint moves that the direct testimony of Edward Fox consisting of four pages and

filed on February 4th, 2003 be moved into the record as though read without cross-examination.

CHAIRMAN BAEZ: Show the testimony of Edward Fox moved into the record as though read without objection. And does Mr. Fox have any --

MS. MASTERTON: Yes. Mr. Fox has one exhibit. It's identified as EBF-2, and Sprint would move that that -- ask that that be identified and then moved into the record at this time.

CHAIRMAN BAEZ: Show Witness Fox Exhibit EBF-2 marked as Exhibit Number 27 and moved into the record without objection.

(Exhibit 27 marked for identification and admitted into the record.)

CHAIRMAN BAEZ: Is that it for Mr. Fox?

MS. MASTERTON: That's it for Mr. Fox.

CHAIRMAN BAEZ: Okay. Thank you, Ms. Masterton.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

EDWARD FOX

Q. Please state your name, your position with Sprint, and your business address.

A. My name is Edward Fox. I am currently employed as Senior Manager – Regulatory Policy for Sprint Corporation. My business address is 6450 Sprint Parkway, Overland Park, Kansas 66251.

Q. Are you the same Edward Fox who previously filed direct testimony and rebuttal testimony in this case?

A. Yes.

Q. What is the purpose of this direct testimony?

A. I will address Issue 10 as identified on Attachment A of this Commission's Procedural Order dated November 4, 2002.

ISSUE 10. WHAT ARE THE APPROPRIATE DEFINITIONS AND ASSOCIATED TERMS AND CONDITIONS FOR THE COLLOCATION ELEMENTS TO BE DETERMINED BY THE COMMISSION?

Q. What collocation elements are addressed in this testimony?

A. The categories are those described on p.5 in the direct testimony of Sprint's witness Jimmy R. Davis.

Q. Does Mr. Davis' testimony address the appropriate definitions for the collocation elements?

A. Yes. The definitions and explanations of each element are included in his testimony on pages 5 – 8 and in Exhibit JRD-2.

Q. Does Sprint currently have a readily available source that describes the appropriate terms and conditions (Ts & Cs) for the collocation elements?

A. Yes. These Ts & Cs are found in the Master Interconnection and Resale Agreement (ICA) that is negotiated between Sprint and the ALECs.

Q. Has Sprint successfully negotiated ALEC agreements in Florida?

A. Yes. Sprint has successfully negotiated over 200 agreements with Florida ALECs since the implementation of the 1996 Telecommunications Act. In none of these has collocation been arbitrated.

Q. Does the 1996 Telecommunications Act require ILECs to negotiate interconnection agreements?

A. Yes. 47 U.S.C 251 (c)(1) obligates the ILECs to negotiate interconnection agreements in good faith. 47 U.S.C. 252 provides procedures for negotiations, arbitrations, and approval of agreements.

Q. Does Sprint's ICA describe the Ts & Cs of the Collocation Elements that are described in Mr. Davis' testimony?

A. Yes. The attached Collocation Attachment to Sprint's ICA (EXHIBIT EBF-2) and associated reference table (EXHIBIT EBF-1) clearly delineates the numerous Ts & Cs for Collocation Elements that are found throughout the collocation section of the agreement.

Q. Does the Telecom Act require ILECs to file collocation tariffs?

A. No. Any tariffs are optional with the particular ILEC. If an ILEC does file a tariff, the tariff must comply with the requirements of section 251 of the Act and the related regulations and standards.

Q. What is the proper way to convey the Ts & Cs for Collocation Elements?

A. The proper way is to continue to set forth the Ts & Cs in the Interconnection Agreement that has been successfully used for the last seven years. The Ts & Cs are clear and reasonable as evidenced by the lack of formal collocation disputes between Sprint and any of the parties.

Q. Does this conclude your testimony?

A. Yes.

CHAIRMAN BAEZ: Mr. McCuaig, we have Mr. Vande Weide and Mr. Flesch. Take Mr. Vande Weide first.

MR. McCUAIG: Yes. Verizon would move that the direct testimony of Jim Vande Weide filed on February 4, 2003 and consisting of 62 pages be moved into the record.

CHAIRMAN BAEZ: Show the testimony of James Vande Weide moved into the record as though read. And does Mr. Vande Weide have any exhibits?

MR. McCUAIG: Yes, he does. The first exhibit is marked JVW-2 -- I'm sorry, the first exhibit is marked JVW-1, and it consists of three pages.

CHAIRMAN BAEZ: Do you want to take them up as a composite, all his exhibits?

MR. McCUAIG: That would be wonderful.

CHAIRMAN BAEZ: Okay. Then identify them for us, please.

MR. McCUAIG: Exhibit JVW-1 consisting of three pages and performing a discount cash flow analysis of S&P industrials --

CHAIRMAN BAEZ: You can identify them by number. That will be fine.

MR. McCUAIG: Thank you. And Exhibit JVW-2 consisting of one page are the only exhibits attached to Mr. Vande Weide direct testimony.

CHAIRMAN BAEZ: All right. Then Mr. Vande Weide's

exhibits identified JVW-1 and 2 will be marked as composite Exhibit Number 28 and moved into the record without objection.

(Exhibit 28 marked for identification and admitted into the record.)

MR. McCUAIG: Verizon would also move that the surrebuttal testimony of James Vande Weide filed on September 26, 2003 and consisting of 24 pages be moved into the record.

CHAIRMAN BAEZ: Show the surrebuttal testimony of James Vande Weide moved into the record as though read. And does he have any exhibits?

MR. McCUAIG: Yes, he does. He has six exhibits to his surrebuttal testimony. They are labeled JVW-1 through JVW-6.

CHAIRMAN BAEZ: Show Surrebuttal Exhibits JVW-1 through JVW-6 identified as Composite Exhibit Number 29 and accepted into the record without objection. Does that take care of Mr. Vande Weide?

MR. McCUAIG: That does take care of Mr. Vande Weide.

CHAIRMAN BAEZ: Okay.

(Exhibit 29 marked for identification and admitted into the record.)

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James H. Vander Weide. I am Research Professor of Finance and Economics Emeritus at the Fuqua School of Business of Duke University. I am also President of Financial Strategy Associates, a firm that provides strategic and financial consulting services to clients in the electric, gas, insurance, telecommunications, and water industries. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

Q. WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PRIOR ACADEMIC EXPERIENCE?

A. I graduated from Cornell University in 1966 with a Bachelor's Degree in Economics. I then attended Northwestern University where I earned a Ph.D. in Finance. In January 1972, I joined the faculty of the School of Business at Duke University and was named Assistant Professor, Associate Professor, and then Professor.

Since joining the faculty, I have taught courses in corporate finance, investment management, and management of financial institutions. I have taught a graduate seminar on the theory of public utility pricing and lectured in executive development seminars on the cost of capital, financial analysis, capital budgeting, mergers and acquisitions, cash management, short-run financial planning, and competitive strategy. I have also served as Program Director of several executive education

programs at the Fuqua School of Business, including the Duke Advanced Management Program, the Duke Executive Program in Telecommunications, Competitive Strategies in Telecommunications, and the Duke Program for Manager Development for managers from the former Soviet Union.

I have conducted seminars and training sessions on financial analysis, financial strategy, cost of capital, cash management, depreciation policies, and short-run financial planning for a wide variety of U.S. and international companies, including ABB, Accenture, Allstate, Ameritech, AT&T, Bell Atlantic, BellSouth, Carolina Power & Light, Contel, Fisons, Glaxo Wellcome, GTE, Lafarge, MidAmerican Energy, New Century Energies, Norfolk Southern, Pacific Bell Telephone, The Rank Group, Siemens, Southern New England Telephone, TRW, and Wolseley PLC.

In addition to my teaching and executive education activities, I have written research papers on such topics as portfolio management, the cost of capital, capital budgeting, the effect of regulation on the performance of public utilities, and cash management. My articles have been published in American Economic Review, Financial Management, International Journal of Industrial Organization, Journal of Finance, Journal of Financial and Quantitative Analysis, Journal of Bank Research, Journal of Accounting Research, Journal of Cash Management, Management Science, The Journal of Portfolio Management, Atlantic Economic Journal, Journal of Economics and

Business, and Computers and Operations Research. I have written a book titled Managing Corporate Liquidity: an Introduction to Working Capital Management, and a chapter for The Handbook of Modern Finance, "Financial Management in the Short Run."

Q. HAVE YOU PREVIOUSLY TESTIFIED ON FINANCIAL OR ECONOMIC ISSUES?

A. Yes. As an expert on financial and economic theory, I have testified on the cost of capital, competition, risk, incentive regulation, forward-looking economic cost, economic pricing guidelines, depreciation, accounting, valuation, and other financial and economic issues in more than 300 cases before the U.S. Congress, the Canadian Radio-Television and Telecommunications Commission, the Federal Communications Commission ("FCC"), the National Telecommunications and Information Administration, the Federal Energy Regulatory Commission, the public service commissions of 39 states, and the insurance commissions of five states. With respect to implementation of the Telecommunications Act of 1996, I have testified in 26 states and in Washington, D.C. on issues relating to the pricing of interconnection, unbundled network elements, and universal service cost studies. I have also consulted with Bell Canada, Deutsche Telekom, and Telefónica on similar issues.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I have been asked by verizon florida inc. ("verizon florida") to make an independent appraisal of the appropriate weighted average cost of capital to be used in studies of the forward-looking economic cost of providing collocation arrangements. As part of my appraisal, i estimated the weighted average cost of capital for an average risk company operating in the competitive market environment required by the fcc's forward-looking economic cost standard. I also performed a study of the return verizon florida would have to earn to compensate them for the additional risk they face as a result of making a long-lived sunk investment in the telecommunications facilities required to provide collocation at the same time that ALECS have the ability to cancel their collocation lease on a monthly basis.

II. SUMMARY

Q. CAN YOU SUMMARIZE YOUR COST OF CAPITAL TESTIMONY IN THIS PROCEEDING?

A. Yes. My cost of capital testimony may be summarized as follows.

A. THE FCC'S FORWARD-LOOKING COST STANDARD.

For purposes of this proceeding, Verizon Florida is filing collocation cost studies, which include a cost of capital, that comply with the same FCC forward-looking economic principles used for pricing unbundled network elements ("UNEs"). Thus, Verizon Florida's proposed collocation rates:

(1) are based on forward-looking economic costs, not embedded or accounting costs; (2) approximate the rates the incumbent LEC would be able to charge in a competitive telecommunications market; and (3) provide correct economic signals for the investment decisions of both competitive and incumbent local exchange carriers.

My recommended cost of capital is therefore consistent with the forward-looking economic cost principle because it reflects current market interest rates, the required market return on equity investments of comparable risk, and the average market value percentages of debt and equity in the capital structure of competitive companies. It is consistent with the FCC's competitive market principle because it reflects the weighted average cost of capital of a large sample of competitive companies of comparable risk, as well as the risks inherent in the FCC's TELRIC costing standard. It is consistent with the FCC's economic signal principle because it reflects the unique and specific risks inherent in the FCC's TELRIC costing standard. More specifically, it reflects the risks the incumbent LEC would incur to construct telecommunications facilities, including collocation facilities, under the TELRIC standard, while offering competitors the option to cancel their use of these facilities on a monthly basis. If the cost of capital input in TELRIC cost studies is less than my recommended cost of capital, it will send the wrong economic signals. Incumbents will have no economic incentive to invest in telecommunications facilities because they will not recover their costs for doing so, and competitors will have no economic

incentive to build their own telecommunications networks because they could provide service more cheaply by leasing telecommunications facilities from Verizon Florida.

B. THE COST OF CAPITAL

Economists unanimously agree that the forward-looking economic cost of capital must be calculated using market interest rates, the market required return on equity investments of comparable risk, and the market value percentages of debt and equity in the target firm's capital structure. My recommended weighted average cost of capital is consistent with this economic definition, while the traditional rate of return definition of the average cost of capital is not. The forward-looking economic cost of capital should be higher than the traditional rate of return cost of capital because it reflects market values rather than book values and competitive rather than less-than-competitive market conditions.

C. RISK IMPLIED BY THE TELRIC STANDARD

The FCC's forward-looking economic cost standard requires that collocation rates reflect the forward-looking economic costs of constructing the facilities to provide collocation arrangements. The Florida Public Service Commission ("Florida PSC") should recognize that the risk of basing rates on the TELRIC standard, while at the same time offering competitors a cancelable lease on the use of collocation facilities is an exceedingly risky proposition. No rational investor would

incur the significant cost of constructing the collocation facilities contemplated in collocation cost studies without being compensated for the considerable risk incurred in making such an investment. The Florida PSC should recognize that the investment risk under the FCC's cost standard is considerably greater than investment risk under the traditional rate of return standard.

D. RISK IMPLIED BY ACTUAL COMPETITIVE MARKET CONDITIONS

The risk of investing in the facilities required to provide collocation in Florida depends on operating leverage, demand uncertainty, rapidly changing technology, the regulatory environment, and the cancelable nature of the collocation lease contract. Taken as a whole, these factors mean that the risk of investing in the facilities required to provide collocation in Florida is significantly greater than the risk of providing local exchange service and the forward-looking risk of investing in the S&P Industrials.

E. THE FORWARD-LOOKING COST OF CAPITAL FOR A COMPETITIVE COMPANY OF AVERAGE RISK

I calculated the forward-looking economic cost of capital for a competitive company of average risk by using the yield to maturity on A-rated industrial bonds and the average market value capital structure of both a large sample of S&P Industrials and a group of telecommunications companies with incumbent local exchange

subsidiaries. To estimate the cost of equity component of the competitive market weighted average cost of capital, I applied the Discounted Cash Flow ("DCF") approach to a large sample of companies operating in competitive markets. (For an explanation of the DCF approach, see discussion on p. 20.) My estimate of the weighted average cost of capital for these companies is 12.45%. However, this estimate does not consider the additional risk Verizon Florida faces for making long-term fixed investments in collocation facilities while offering its customers the option to cancel their lease contract on a monthly basis.

F. COST OF CAPITAL FOR USE IN TELRIC COST STUDIES

To reflect the additional risk of making long-term fixed investments in collocation facilities, while offering customers an option to cancel their lease contract on a monthly basis, the weighted average cost of capital for use in TELRIC cost studies must be greater than the weighted average cost of capital for my proxy group of industrial companies. I estimated the additional return required to compensate Verizon Florida for the unique and special risks it faces in offering competitors an option to cancel their lease on a monthly basis by applying option pricing formulas used in the financial markets. As discussed below, my estimate of the required risk premium is 5.92%. Thus, my recommended cost of capital for use in the collocation cost studies used to set Verizon Florida's rates is 18.36% [12.45% + 5.92% = 18.36%

(difference due to rounding)].

III. FUNDAMENTAL ECONOMIC PRINCIPLES

A. THE FCC'S FORWARD-LOOKING ECONOMIC COST STANDARD

Q. HAS THE FCC DETERMINED WHAT ECONOMIC PRINCIPLES SHOULD BE USED IN SETTING RATES FOR COLLOCATION ARRANGEMENTS?

A. Yes. For purposes of this proceeding, Verizon Florida's collocation cost studies follow the basic economic principles for setting rates set forth in the FCC's First Report and Order, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 ("Local Competition Order"). In that order, the FCC decided that three fundamental economic principles should be used to set rates for interconnection services and UNEs:

1. Rates for interconnection and UNEs should be based on forward-looking economic costs, not embedded or accounting costs;
2. Rates for interconnection and UNEs should approximate the rates the incumbent LEC would be able to charge in a competitive market for interconnection and UNEs arrangements; and
3. Rates for interconnection and UNEs should provide correct economic signals for the investment decisions of both competitive and incumbent local exchange carriers.

Q. DO THE FCC'S RULES ADDRESS THE COST OF CAPITAL THAT SHOULD BE USED IN A FORWARD-LOOKING COST STUDY?

A. Yes. Rule 51.505(b)(2) provides that a "forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element." Forward-looking costs are the costs "that a carrier would incur in the future," and do not include embedded or historical costs. (Local Competition Order at ¶¶ 683, 704.)

Q. DOES YOUR INDEPENDENT ANALYSIS REFLECT THE FCC'S FORWARD-LOOKING COST PRINCIPLE?

A. Yes. I calculated the forward-looking cost of capital using a forward-looking cost of debt, forward-looking cost of equity, and forward-looking capital structure. The cost of capital I compute is appropriate for use in determining the forward-looking cost of providing collocation through the application of correct economic principles.

Q. DO THE FCC'S RULES PRESCRIBE THE ECONOMIC PURPOSE OF FORWARD-LOOKING ECONOMIC COST STUDIES?

A. Yes. The FCC has held that forward-looking economic costs should simulate the results of a competitive market for interconnection and UNEs. For example, at ¶ 679 of the Local Competition Order, the FCC states:

> Adopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible, the conditions of a competitive market . . . Because a pricing

> methodology based on forward-looking costs simulates the conditions in a competitive marketplace, it allows the requesting carrier to produce efficiently and to compete effectively, which should drive retail prices to their competitive levels. [Emphasis added.]

And at ¶ 738, the FCC states:

> In this proceeding, we are establishing pricing rules that should produce rates for monopoly elements and services that approximate what the incumbent LEC would be able to charge if there were a competitive market for such offerings. [Emphasis added.]

Q. HAS THE FCC REITERATED ITS DECISION THAT FORWARD-LOOKING ECONOMIC COSTS SHOULD "SIMULATE[S] THE CONDITIONS IN A COMPETITIVE MARKETPLACE"?

A. Yes. In its ruling on Verizon Massachusetts' Section 271 Petition, the FCC reiterated that it has

> determined that new entrants "should make their decisions whether to purchase unbundled elements...based on the relative economic costs of these options," and that such competitors would not be able to make such decisions "efficiently" unless the BOC was offering UNEs based on forward-looking economic costs. The Commission equated "efficient entry" with the availability of UNEs at forward-looking

economic costs, which "replicates...the conditions of a competitive market." "Efficient entry" simply means that competitors seeking entry will face the same sorts of costs they would face in a fully competitive market, that is, TELRIC-based UNEs rates. [Memorandum, Opinion, and Order in CC Docket No. 01-9, FCC 01-130, adopted April 16, 2001 ("Mass. 271 Order"), ¶ 42 (Emphasis added).]

Q. DO VERIZON FLORIDA'S ALEC CUSTOMERS SUPPORT THE OPINION THAT THE USE OF THE FORWARD-LOOKING ECONOMIC COST STANDARD REPLICATES CONDITIONS IN A COMPETITIVE MARKET FOR INTERCONNECTION AND UNES?

A. Yes. The ALECs have repeatedly stated that forward-looking costs must replicate the conditions of a competitive market. For example, in her direct testimony on behalf of AT&T and WorldCom in the Virginia arbitration proceeding before the FCC, Terry L. Murray stated:

> First, as is consistent with the Commission's Total Element Long Run Incremental Cost ("TELRIC") methodology, the prices for UNEs should mimic the prices that would prevail if Verizon sold the same functionalities in a competitive market. Competitive market forces would drive prices down to efficient forward-looking economic costs. Thus, to allow all providers of local exchange service to purchase inputs as if they were doing so in a competitive market, the

Commission should establish prices for UNEs that do not exceed forward-looking economic costs. [Murray Direct Testimony filed July 31, 2001, p. 5 (emphasis added), Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc. and For Expedited Arbitration, CC Docket No. 00-218; Petition of Cox Virginia Telecom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc. and For Arbitration, CC Docket No. 00-249; Petition of AT&T Communications of Virginia, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., CC Docket No. 00-218, DA 02-1731.]

Q. DO THE FCC'S RULES ADDRESS THE APPROPRIATE ROLE FOR TELRIC-BASED RATES IN SENDING CORRECT ECONOMIC SIGNALS TO PARTICIPANTS IN A COMPETITIVE TELECOMMUNICATIONS MARKET?

A. Yes. The FCC's rules clearly establish that TELRIC-based rates should

send correct economic signals for the investment and operating decisions of new entrants and incumbent LECs alike. For example, in ¶ 620 of the Local Competition Order, the FCC states:

> In dynamic competitive markets, firms take action based . . . on the relationship between market-determined prices and forward-looking economic costs. If market prices exceed forward-looking economic costs, new competitors will enter the market. If their forward-looking economic costs exceed market prices, new competitors will not enter the market and existing competitors may decide to leave. . . . New entrants should make their decisions whether to purchase unbundled elements or to build their own facilities based on the relative economic costs of these options.

Q. DOES YOUR COST OF CAPITAL RECOMMENDATION IN THIS PROCEEDING PROVIDE CORRECT ECONOMIC SIGNALS FOR THE INVESTMENT DECISIONS OF NEW ENTRANTS AND THE INCUMBENT LECS?

A. Yes. My 18.36% weighted average cost of capital recommendation in this proceeding reflects the forward-looking risk and required return on the incumbent LEC's investment in the network facilities required to provide interconnection and UNEs in a competitive market where the ALEC has the option to cancel its lease of network facilities on a monthly basis. If collocation rates were based on a lower cost of capital,

new entrants would find it advantageous to collocate in the incumbent LEC's central office and lease UNEs rather than to build their own facilities, even if they could provide telecommunications service more efficiently than the incumbent LEC. In addition, if rates were based on a lower cost of capital, the incumbent LEC would have no economic incentive to continue to invest in interconnection facilities.

B. THE COST OF CAPITAL

Q. DOES THE COST OF CAPITAL PLAY ANY ROLE IN THE FCC'S GUIDELINES FOR FORWARD-LOOKING ECONOMIC COST STUDIES?

A. Yes. As noted above, Verizon Florida's collocation cost studies follow the FCC's forward-looking economic cost principles. The forward-looking economic cost of providing collocation arrangements includes both capital costs and expenses. The capital costs, in turn, include three elements: (1) the LECs' investment in the telecommunications facilities required to provide collocation; (2) the economic depreciation on these facilities; and (3) the required rate of return, or cost of capital, associated with these facilities.

Q. HOW DO ECONOMISTS DEFINE THE REQUIRED RATE OF RETURN, OR COST OF CAPITAL, ASSOCIATED WITH PARTICULAR INVESTMENT DECISIONS, SUCH AS THE DECISION TO INVEST IN THE BUILDING OF TELECOMMUNICATIONS FACILITIES?

A. Economists define the required rate of return on a particular investment as the return that investors forego by making that investment instead of an alternative investment of equal risk.

Q. HOW DOES THE COST OF CAPITAL AFFECT A FIRM'S INVESTMENT DECISIONS?

A. The goal of a firm is to maximize the value of the firm. This goal can be accomplished by accepting all investments in plant and equipment with an expected rate of return greater than or equal to the cost of capital. Thus, a firm should continue to invest in plant and equipment only so long as the return on its investment is greater than or equal to its cost of capital.

Q. HOW DOES THE COST OF CAPITAL AFFECT INVESTORS' WILLINGNESS TO INVEST IN A COMPANY?

A. The cost of capital measures the return investors can expect on investments of comparable risk. Rational investors will not invest in a particular investment opportunity if the expected return on that opportunity is less than the cost of capital. Thus, the expected rate of return on an investment in a company must exceed, or at least be equal to, the cost of capital before investors will be willing to invest in that company.

Q. DO ALL INVESTORS HAVE THE SAME POSITION IN THE FIRM?

A. No. Debt investors have a fixed claim on a firm's assets and income that must be paid prior to any payment to the firm's equity investors.

Since the firm's equity investors have a residual claim on the firm's assets and income, equity investments are riskier than debt investments. Thus, the cost of equity exceeds the cost of debt.

Q. WHAT IS THE OVERALL OR WEIGHTED AVERAGE COST OF CAPITAL?

A. The overall or weighted average cost of capital is a weighted average of the cost of debt and cost of equity, where the weights are the percentages of debt and equity in a firm's capital structure.

Q. CAN YOU ILLUSTRATE THE CALCULATION OF THE OVERALL OR WEIGHTED AVERAGE COST OF CAPITAL?

A. Yes. Assume that the cost of debt is 9%, the cost of equity is 15%, and the percentages of debt and equity in the firm's capital structure are 25% and 75%, respectively. Then the weighted average cost of capital is expressed by 0.25 times 9% plus 0.75 times 15%, or 13.5%.

Q. HOW DO ECONOMISTS DEFINE THE COST OF DEBT COMPONENT OF THE WEIGHTED AVERAGE COST OF CAPITAL?

A. Economists define the cost of debt as the market interest rate that a firm would have to pay on newly-issued debt obligations. In efficient markets, the market interest rate is also the best estimate of future interest rates. The correct economic definition of the cost of debt is thus forward-looking and market-oriented.

Q. HOW DO ECONOMISTS DEFINE THE COST OF EQUITY COMPONENT OF THE WEIGHTED AVERAGE COST OF CAPITAL?

A. Economists define the cost of equity as the return investors expect to receive on alternative equity investments of comparable risk. Since the return on an equity investment of comparable risk is not fixed by contract, the cost of equity is more difficult to measure than the cost of debt. There is agreement, however, as I have already noted, that the cost of equity is greater than the cost of debt. There is also agreement among economists that the cost of equity, like the cost of debt, is both forward-looking and market-based.

Q. WHAT APPROACHES DO ECONOMISTS EMPLOY TO OBTAIN NUMERICAL ESTIMATES OF THE COST OF EQUITY?

A. Economists generally use market models such as the DCF Model to estimate a firm's cost of equity. The DCF Model is based on the assumption that the market price of a firm's stock is equal to the present value of the stream of cash flows that investors expect to receive from owning the stock. The cost of equity in the DCF Model is that discount rate which equates the firm's stock price to the present value of the future stream of cash flows investors expect from owning the stock.

Q. HOW DO ECONOMISTS MEASURE THE PERCENTAGES OF DEBT AND EQUITY IN A FIRM'S CAPITAL STRUCTURE?

A. Economists measure the percentages of debt and equity in a firm's

capital structure by first calculating the market value of the firm's debt and the market value of its equity. Economists then calculate the percentage of debt by the ratio of the market value of debt to the combined market value of debt and equity, and the percentage of equity by the ratio of the market value of equity to the combined market values of debt and equity. For example, if a firm's debt has a market value of $25 million and its equity has a market value of $75 million, then its total market capitalization is $100 million, and its capital structure contains 25% debt and 75% equity.

Q. WHY DO ECONOMISTS MEASURE A FIRM'S CAPITAL STRUCTURE IN TERMS OF THE MARKET VALUES OF ITS DEBT AND EQUITY?

A. Economists measure a firm's capital structure in terms of the market values of its debt and equity because that is the best measure of the amounts of debt and equity that investors have invested in the company on a going-forward basis. Furthermore, economists generally assume that the goal of management is to maximize the value of the firm, where the value of the firm is the sum of the market value of the firm's debt and equity. Only by measuring a firm's capital structure in terms of market values can its managers choose a financing strategy that maximizes the value of the firm.

Q. IS THE ECONOMIC DEFINITION OF THE COST OF CAPITAL, WHICH FOCUSES ON THE MARKET VALUES OF DEBT AND EQUITY, WIDELY ACCEPTED IN OTHER CONTEXTS BY CAPITAL

MARKET PARTICIPANTS?

A. Yes. Homeowners measure the value of their homes in terms of market values, not historical cost or book values. Investors measure the return and risk on their portfolios in terms of market values, not book values. Companies use a market value definition of the cost of capital to make entry, investment, and innovation decisions.

Q. IS THE ECONOMIC DEFINITION OF THE WEIGHTED AVERAGE COST OF CAPITAL CONSISTENT WITH THE WAY COMPETITIVE FIRMS DETERMINE THE REQUIRED RATE OF RETURN ON INVESTMENT DECISIONS?

A. Yes. Managers also use a market value definition of the weighted average cost of capital in making investment decisions. From the manager's perspective, the firm's cost of capital is equal to the return investors can earn on the market value of other investments of the same risk. Rational managers, like rational investors, will not commit resources to investments in new markets or technologies unless the expected return on the market value of these investments in new markets or technologies is greater than or equal to the firm's cost of capital, measured on a market value basis, for projects with the same degree of risk.

Q. DOES THE ECONOMIC LOGIC BEHIND THE DEFINITION OF THE COST OF CAPITAL HAVE ANY IMPLICATIONS FOR COMPETITIVE ENTRY IN THE LOCAL EXCHANGE MARKET IN FLORIDA?

A. Yes. If the Florida PSC wants to encourage efficient facilities-based competitive entry in the market for local exchange services, the cost of capital input in Verizon Florida's forward-looking economic cost studies must be at least as large as the return those potential facilities-based competitors can earn on other investments of the same risk. If potential competitors can lease collocation and other local exchange facilities from Verizon Florida at rates that include a ten percent rate of return on investment, for example, they will have no incentive to invest in their own facilities if they can earn returns greater than ten percent on other investments of comparable risk. In short, it would make more sense for those competitors to lease collocation and other local exchange facilities from Verizon Florida than to build their own facilities. To provide correct incentives for entry into local exchange markets, the Florida PSC should measure Verizon Florida's cost of capital in the same way that potential competitors measure their own costs of capital.

Q. DOES THE ECONOMIC DEFINITION OF THE COST OF CAPITAL HAVE ANY IMPLICATIONS FOR THE POLICY GOAL OF ENCOURAGING INVESTMENT AND INNOVATION IN TELECOMMUNICATIONS SERVICES?

A. Yes. The Florida PSC should likewise use a market definition of the cost of capital if it wishes to promote efficient investment and innovation in telecommunications services. In competitive markets, the incumbent and its competitors can only be encouraged to invest in new technologies, products, and services if the rate of return they can earn

on the market value of their investments exceeds the rate of return they could earn on the market value of other investments of the same risk.

Q. WHY DO INVESTORS MEASURE THE RETURN ON THEIR INVESTMENT PORTFOLIOS USING MARKET VALUE WEIGHTS RATHER THAN BOOK VALUE WEIGHTS?

A. Investors measure the return on their investment portfolios using market value weights because market value weights are the best measure of the amounts the investors currently have invested in each security in the portfolio. From the point of view of investors, the historical cost or book value of their investment is entirely irrelevant to the current risk and return on their portfolios because if they were to sell their investments, they would receive only market value and not historical cost. Thus, the return can only be measured in terms of market values.

Q. IS THE ECONOMIC DEFINITION OF THE WEIGHTED AVERAGE COST OF CAPITAL CONSISTENT WITH REGULATORS' TRADITIONAL DEFINITION OF THE AVERAGE COST OF CAPITAL?

A. No. As noted above, the economic definition of the weighted average cost of capital is based on the market costs of debt and equity, the market value percentages of debt and equity in a company's capital structure, and the future expected risk of investing in the company. Regulators, in contrast, have traditionally defined the weighted average cost of capital using the embedded cost of debt, the book values of debt and equity in a company's capital structure, and the risk of investing in a

franchised provider of telecommunications services.

Q. WHAT IS THE DIFFERENCE BETWEEN THE MARKET COST OF DEBT AND A COMPANY'S EMBEDDED COST OF DEBT?

A. The market cost of debt is the rate of interest a company would have to pay if it issued debt under today's market conditions. The embedded cost of debt is the company's total interest expense divided by the total book value of its debt. Thus, the embedded cost of debt is an average of the interest rates the company has paid in the past to issue debt securities. This calculation of the embedded cost of debt, however, provides no basis for measuring the market cost of debt.

Q. WHAT IS THE DIFFERENCE BETWEEN THE MARKET VALUE AND THE BOOK VALUE OF A COMPANY'S DEBT?

A. The market value of a company's debt represents the current price in the capital markets of the company's debt obligations. The book value of a company's debt is the historical face value of its debt adjusted for the accounting amortization of premiums and discounts. The market value of a company's debt is approximately equal to the book value of its debt when market interest rates are approximately equal to the average interest rate of the company's previous debt issuances.

Q. WHAT IS THE DIFFERENCE BETWEEN THE MARKET VALUE AND THE BOOK VALUE OF A COMPANY'S EQUITY?

A. The market value of a company's equity is simply the market price of the

company's stock times the number of shares outstanding. The book value of equity is more complex: it represents the sum of paid-in capital and retained earnings, where paid-in capital represents the amount of capital a firm has historically obtained from stock issuances, and retained earnings represent the cumulative earnings over the life of the company that have not been paid out as dividends. In addition, the book value of a company's equity is adjusted periodically for accounting events such as changes in accounting rules and regulations, write-offs, and extraordinary events.

Q. DOES THE BOOK VALUE OF A COMPANY'S EQUITY REFLECT THE HISTORICAL COST OF ITS ASSETS?

A. Yes. According to basic accounting principles, the book value of a company's equity is equal to the book value of a company's assets minus the book value of the company's debt. But accountants measure the book value of a company's assets based on the historical cost of those assets. Thus, the book value of a company's equity reflects the historical cost of the company's assets.

Q. WHY HAVE STATE AND FEDERAL REGULATORS TRADITIONALLY DEFINED THE AVERAGE COST OF CAPITAL IN TERMS OF EMBEDDED COSTS AND BOOK VALUES RATHER THAN FORWARD-LOOKING COSTS AND MARKET VALUES?

A. State and federal regulators have traditionally defined a company's average cost of capital in terms of embedded costs and book values

that rates reflect the forward-looking economic cost of constructing a long-lived local telecommunications network using currently available technologies in an environment in which ALECs have the opportunity to cancel their lease contract with Verizon Florida on a monthly basis. The combination of the FCC's TELRIC cost standard and the cancelable nature of the lease contract creates a significant risk that Verizon Florida will be unable to recover its investment in the facilities required to provide interconnection to its competitors. Thus, the collocation investment contains additional risks that are not present in the retail local exchange market under historical cost ratemaking principles.

Given the significant differences between historical-cost ratemaking principles and forward-looking economic cost ratemaking principles, it is not surprising that the forward-looking economic cost of capital can be significantly higher than the traditional regulated rate of return cost of capital. Indeed, the appropriate cost of capital input for use in TELRIC cost studies exceeds the last authorized retail rate of return because: (1) the target market value capital structure of competitive companies contains less debt and more equity than the historical cost, book value capital structure used for regulated companies under rate of return regulation; (2) the cost of equity for a company operating in a competitive marketplace exceeds the cost of equity for a company operating in a franchised marketplace; and (3) the risk of investing in the telecommunications facilities required to provide interconnection and collocation is significantly greater than the risk of investing in the local

economic principle that economic costs are forward looking and market based, not backward looking and accounting based.

Q. IS IT REASONABLE FOR THE COST OF CAPITAL INPUT IN TELRIC COST STUDIES IN FLORIDA TO EXCEED THE LAST AUTHORIZED RETURN SET UNDER TRADITIONAL RATE OF RETURN REGULATION FOR VERIZON FLORIDA'S REGULATED RETAIL OPERATIONS?

A. Yes. Recall that Verizon Florida's retail rates under rate of return regulation were based on historical cost, rather than forward-looking economic cost. Thus, the cost of capital input under traditional rate of return regulation was based on a book value capital structure that reflected the historical cost of Verizon Florida's assets, an embedded cost of debt, and a cost of equity appropriate to a regulated company serving a franchised area prior to the passage of the Act.

In contrast, the FCC has clearly stated that the cost of capital input in TELRIC cost studies must be based on the principle of forward-looking economic costs. Unlike the historically-oriented cost of capital used in traditional rate of return regulation, the forward-looking economic cost of capital must necessarily be based on the market values of debt and equity in the company's capital structure, the market cost of debt, and the cost of equity for a company operating in a competitive marketplace.

In addition, the FCC's forward-looking economic cost standard requires

because rates have traditionally been based on the historical or embedded costs of the regulated firm's assets, or rate base. In contrast, the TELRIC model requires regulators to set rates based on the forward-looking economic cost, or the market value, of the company's investment in network facilities. Defining the cost of capital in terms of a book value capital structure is inconsistent with the use of forward-looking economic costs and market values to measure the regulated company's investment in telecommunications facilities.

Q. IS A DEFINITION OF THE AVERAGE COST OF CAPITAL THAT IS BASED ON AN EMBEDDED BOOK VALUE CAPITAL STRUCTURE CONSISTENT WITH THE FORWARD-LOOKING ECONOMIC COST PRINCIPLES ADOPTED BY THE FCC?

A. No. As noted above, Verizon Florida's collocation studies are based on forward-looking economic costs, not historical or embedded costs. The economic principles underlying a forward-looking economic cost study require that the average cost of capital be calculated using a market interest rate, a market value capital structure, and a cost of equity that measures the return investors require in competitive markets on other investments of the same risk. In contrast, the traditional regulatory definition of the weighted average cost of capital is based on an embedded interest rate, a book value capital structure, and a cost of equity that measures the return investors require in markets that are at least partially protected from competition. The traditional regulatory definition of the weighted average cost of capital is inconsistent with the

exchange market.

Q. HOW DO YOU INTERPRET THE FCC'S STATEMENT IN ¶ 702 OF THE LOCAL COMPETITION ORDER THAT CURRENTLY ALLOWED RATES OF RETURN CAN BE A USEFUL STARTING POINT FOR THE DETERMINATION OF THE COST OF CAPITAL INPUT IN TELRIC COST STUDIES?

A. Paragraph 702 only states that currently allowed rates of return may be a useful starting point for measuring the appropriate cost of capital in TELRIC cost studies. As the FCC stated, parties may demonstrate "to a state commission that either a higher or lower level of cost of capital is warranted, without that commission conducting a rate-of-return or other rate based proceeding." In this testimony, I demonstrate why the cost of capital used to establish rates in this proceeding must be higher than the currently authorized retail regulatory return.

Q. ARE THERE ANY GROUNDS FOR RECOMMENDING THAT THIS COMMISSION USE A HIGHER COST OF CAPITAL INPUT THAN THE CURRENTLY AUTHORIZED RATE OF RETURN AT THE FEDERAL OR STATE LEVEL?

A. Yes. An appropriate ground for recommending a cost of capital that is higher than the last federal or state authorized return is that the last authorized retail return was established prior to the passage of both the Act and the adoption of the Local Competition Order, which mandates that rates for interconnection and UNEs replicate conditions in a

competitive market. As further explained below, the FCC's TELRIC pricing rules greatly increase the risk of offering collocation arrangements above the risks of providing local exchange service under historical cost ratemaking principles. Furthermore, the FCC has stated in its reply brief before the U.S. Supreme Court that the additional risk of the FCC's TELRIC cost standard should be included in the cost of capital.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE PROPER DEFINITION OF THE AVERAGE COST OF CAPITAL FOR USE IN VERIZON FLORIDA'S FORWARD-LOOKING ECONOMIC COST STUDIES.

A. The Act removes all barriers to entry in the local exchange market and opens the market to full competition. In a competitive market for local exchange service, forward-looking economic cost is the appropriate cost benchmark for forward-looking economic cost studies. Furthermore, the FCC has determined that forward-looking economic costs should approximate the costs the incumbent LEC would incur in a competitive market for interconnection and UNEs. Thus, for use in Verizon Florida's forward-looking economic cost studies, the average cost of capital should be defined in terms of market interest rates, the market values of debt and equity in a company's capital structure, and investors' expectations regarding the future risk of investing in the company in a competitive environment. This is the only definition of the average cost of capital that is consistent with the underlying assumptions of Verizon

Florida's forward-looking economic cost studies.

IV. RISK

Q. DOES THE REQUIRED RATE OF RETURN ON AN INVESTMENT VARY WITH THE RISK OF THAT INVESTMENT?

A. Yes. Investors require a higher rate of return on investments with greater risk.

Q. HOW DO THE FCC'S FORWARD-LOOKING ECONOMIC COST STANDARDS AFFECT THE APPROPRIATE VIEW OF INVESTMENT RISK USED TO ESTIMATE THE COST OF CAPITAL COMPONENT OF TELRIC COST STUDIES?

A. The FCC's forward-looking economic cost standards affect the appropriate view of investment risk in several ways. First, the FCC has specifically stated that its cost standard should produce rates that "approximate what the incumbent LEC would be able to charge if there were a competitive market for such offerings." Firms in a fully competitive environment would certainly face higher investment risk and higher costs of capital than firms in a less competitive environment.

Second, the FCC has also stated that its forward-looking economic cost standard should reflect the forward-looking investment and operating costs of constructing a long-lived local telecommunications network. Yet there is nothing in Verizon Florida's lease contracts with ALECs that require the ALECs to continue leasing from Verizon Florida over the life

of the network. Indeed, the typical lease contract gives the ALEC the option to discontinue its lease of Verizon Florida's network on a monthly basis. The risk that the ALEC will cancel its lease for network facilities after Verizon Florida has incurred significant fixed investments to construct these facilities, as contemplated by the FCC's TELRIC standard, must be considered when estimating the cost of capital component for use in TELRIC cost studies.

Q. WHAT ARE THE ECONOMIC IMPLICATIONS OF THE FCC'S TELRIC STANDARD?

A. Verizon Florida is unlikely to achieve the revenue and expense forecasts embedded in the TELRIC assumptions. If competitors cancel their lease, Verizon Florida's revenues will be less than they were forecasted to be when rates were set. Thus, under the TELRIC assumptions, Verizon Florida will almost certainly earn a return on investment that is significantly less than its cost of capital.

Q. DO COMPETITIVE COMPANIES ALSO FACE THE RISK THAT THEIR RETURN ON INVESTMENT WILL BE LESS THAN THEIR COST OF CAPITAL?

A. Yes. Competitive companies always face some risk that their return on investment will be less than their cost of capital. However, competitive companies also have a significant probability that they will earn a return on investment that exceeds the cost of capital. Indeed, competitive companies generally will not undertake investments where the expected

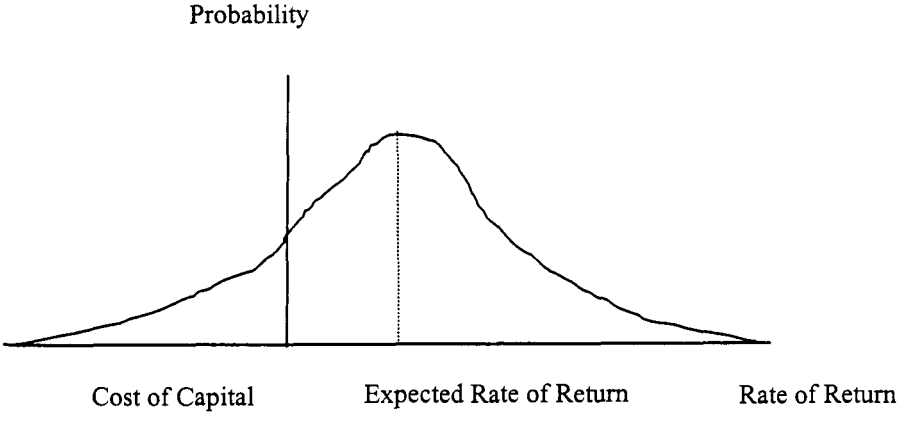
rate of return on investment is less than their cost of capital.

Q. CAN YOU SPECIFY THE RISKS FACED BY COMPETITIVE COMPANIES IN TERMS OF THE PROBABILITY DISTRIBUTION OF THEIR FUTURE RATES OF RETURN ON INVESTMENT?

A. Yes. In terms of the probability distribution of future rates of return on investment, the situation for competitive companies is generally that shown in Figure 1 below. Note that the probability distribution of future rates of return on investment is symmetric about the expected value of the future rates of return, and the expected value is greater than the company's cost of capital.

Figure 1

Probability Distribution of Competitive Company's Rate of Return on Investment



Q. WHY IS THERE A SIGNIFICANT PROBABILITY THAT COMPETITIVE COMPANIES WILL ACHIEVE RETURNS ON INVESTMENT THAT EXCEED OR EQUAL THEIR COSTS OF CAPITAL?

A. There is a significant probability that competitive companies will achieve returns on investment that exceed or equal their cost of capital because competitive companies: (1) frequently achieve a short-term competitive advantage, and, hence, higher returns, through the introduction of new technologies; (2) set rates that reflect realistic revenue forecasts, realistic expense and investment forecasts, and realistic depreciation rates; (3) set rates that reflect the higher costs and risks of making sunk investments in long-lived facilities when customers have the option to cancel service one month at a time; and (4) set rates that reflect the costs of transitioning to a new technology, should a new technology appear. In short, competitive companies price their products and services at levels that give them a high probability of earning a return on investment that exceeds their cost of capital. If they cannot price products and services at these levels, they will simply decide not to invest.

Q. WHY DO COMPETITIVE COMPANIES SOMETIMES EARN RATES OF RETURN ON INVESTMENT THAT ARE LESS THAN THEIR COSTS OF CAPITAL?

A. Competitive companies sometimes earn rates of return that are less than their costs of capital because, despite their best efforts to use realistic estimates of revenues, expenses, and investments, the actual values of revenues, expenses, and investments may differ from the company's best estimates. However, again, it should be remembered that competitive companies generally will not undertake investments

where the expected rate of return on investment is less than the company's cost of capital.

Q. WHY IS THE RISK OF INVESTING IN THE COLLOCATION FACILITIES NECESSARY TO PROVIDE ACCESS TO UNES UNDER THE TELRIC STANDARD GREATER THAN THE RISK OF INVESTING IN THE AVERAGE COMPETITIVE COMPANY?

A. The risk of investing in the facilities required to provide access to UNEs under the TELRIC standard is greater than the risk of investing in the average competitive company because: (1) TELRIC rates are initially set to recover investments over a long time frame, but rates are re-set every few years in order to reflect supposedly lower costs; (2) TELRIC rates are based on idealized economic assumptions that are often unachievable in the real world; (3) TELRIC rates are 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; (4) TELRIC rates do not reflect the higher costs and risks of making large sunk investments in network facilities when customers have the option to cancel their lease of network facilities one month at a time; and (5) under the FCCs' rules, ILECs are unable to achieve a competitive advantage by investing in new technologies because they must immediately share the benefits of new technologies with competitors.

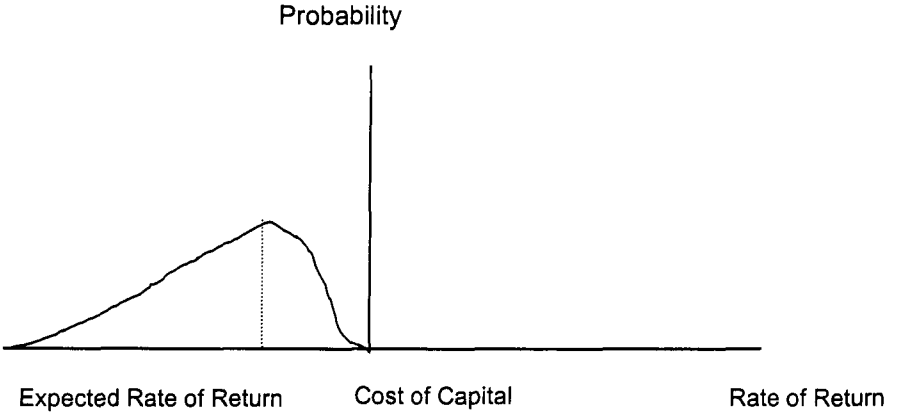
Q. WHAT IS THE EFFECT OF THE TELRIC ASSUMPTIONS ON THE PROBABILITY THAT THE ILEC WILL EARN A RATE OF RETURN ON ITS INVESTMENT IN THE FACILITIES REQUIRED TO ACCESS UNES THAT IS LESS THAN ITS COST OF CAPITAL?

A. Under the TELRIC assumptions, it is virtually certain that the ILEC will earn a rate of return on investment that is less than its cost of capital. The ILEC can only earn a rate of return on its investment equal to its cost of capital if: (1) the optimistic revenue, expense, and investment assumptions of the TELRIC standard unexpectedly turn out to be accurate; and (2) rates are not re-set until the ILEC is able to fully recover its long-lived investment in network facilities. Since depreciation lives have generally been set in the range of 12 to 16 years, while commissions have been reviewing TELRIC-based rates every three or four years, the probability of the ILEC ever recovering its initial investment, let alone earning a reasonable rate of return on its investment, is virtually zero. In terms of the probability distribution of future returns on investment, the situation for the ILEC operating under the TELRIC standard is generally that shown in Figure 2 below. Note that there is almost zero probability that the ILEC will earn a return on investment greater than its cost of capital, and the expected rate of return on investment is significantly less than the ILEC's cost of capital.

Figure 2

Probability Distribution of ILEC's

Rate of Return on Investment under TELRIC Standard



Q. WHAT INCENTIVE DOES THE ILEC HAVE TO INVEST IN NEW TELECOMMUNICATIONS FACILITIES IF ITS EXPECTED RATE OF RETURN ON INVESTMENT IS LESS THAN ITS COST OF CAPITAL?

A. The ILEC has no rational economic incentive to invest in new telecommunications facilities under these circumstances. Thus, the effect of the FCC's TELRIC standard will almost certainly be to reduce the ILECs' investments in new telecommunications technologies.

Q. ARE THE LIKELY RATES OF RETURN FOR TELECOMMUNICATIONS COMPANIES OPERATING UNDER THE TELRIC STANDARD CONSISTENT WITH THE REQUIREMENTS OF THE HOPE AND BLUEFIELD DECISIONS?

A. No. The Hope and Bluefield decisions require that the expected rate of

return on investment be equal to the company's weighted average cost of capital. [Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944); Bluefield Water Works and Improvement Co. v. Public Service Comm'n. 262 U.S. 679, 692 (1923)] Under the TELRIC standard, the telecommunications company's expected rate of return on investment is significantly less than its weighted average cost of capital.

Q. HOW CAN THE FLORIDA PSC SET RATES SO THAT A CARRIER UNDER THE TELRIC STANDARD WILL HAVE THE OPPORTUNITY TO EARN ITS WEIGHTED AVERAGE COST OF CAPITAL OVER TIME?

A. The Florida PSC must use a cost of capital input in forward-looking cost models that reflects the additional regulatory risk of operating under the TELRIC standard. Such a cost of capital would of course be greater than the average competitive market cost of capital because competitive companies do not face the additional risk of regulation under the TELRIC standard.

Q. HAVE YOU BEEN ABLE TO QUANTIFY THE IMPACT OF THE FCC'S TELRIC STANDARD ON THE APPROPRIATE COST OF CAPITAL FOR USE IN TELRIC COST STUDIES?

A. Yes. I have been able to conservatively estimate the risk premium Verizon Florida requires to invest in the collocation facilities required to provide access to UNEs under the TELRIC standard.

Q. HOW DID YOU ESTIMATE THIS REQUIRED RISK PREMIUM?

A. I estimated this required risk premium by: (1) recognizing the difference between a non-cancelable financial lease and a cancelable operating lease; (2) obtaining data from Verizon Florida on its forward-looking investment, operating expenses, and depreciation for the facilities required to provide access to UNEs in Florida; (3) using a standard methodology for valuing the ALECs' option to cancel their lease one month at a time; and (4) comparing the required rate of return on a financial lease for Verizon Florida's network to the required rate of return on a cancelable operating lease for this network.

Q. WHAT IS THE DIFFERENCE BETWEEN A NON-CANCELABLE FINANCIAL LEASE AND A CANCELABLE OPERATING LEASE?

A. The financial literature distinguishes between two types of lease. The financial lease is a long-term, non-cancelable lease, whose term is approximately equal to the expected economic life of the leased property. The lease payments in a financial lease contract must be sufficient to cover the original cost of the property, as well as the operating expenses. The operating lease, on the other hand, is a cancelable lease, that has an expected term much less than the expected economic life of the leased property. Under the operating lease, the lessee has the option to cancel the lease on short notice. The lease payments on an operating lease must be sufficient to cover not only the initial investment and operating expenses, but also the value of the option to cancel the lease.

Q. WHY IS THE DISTINCTION BETWEEN A NON-CANCELABLE FINANCIAL LEASE AND A CANCELABLE OPERATING LEASE IMPORTANT FOR THE PURPOSE OF ESTIMATING THE APPROPRIATE COST OF CAPITAL FOR USE IN TELRIC COST STUDIES?

A. The distinction is important because expert witnesses, including me, have previously estimated the cost of capital for use in TELRIC cost studies under the assumption that the lease contract with the ALECs is a non-cancelable financial lease, when, in fact, the contract is a cancelable operating lease. Since cancelable operating leases involve higher risk to the lessor, this increased risk should have compensated with a higher estimate of the appropriate cost of capital for use in TELRIC cost studies.

Q. WHY DO CANCELABLE OPERATING LEASES INVOLVE SIGNIFICANTLY HIGHER RISK FOR VERIZON FLORIDA?

A. There are at least three reasons why Verizon Florida's investment risk is significantly greater under a cancelable operating risk than under a financial lease. First, Verizon Florida's network investment is large, long-lived, and largely sunk once the investment is made. If the ALECs cancel their lease of Verizon Florida's collocation arrangements, there are few alternative uses for Verizon Florida's collocation facilities. Second, the TELRIC standard increases the likelihood that Verizon Florida's rates will be insufficient to either allow Verizon Florida to recover its network investment or earn a reasonable rate of return on its

investment. By setting rates based on optimistic revenue, expense, and investment forecasts and long depreciation lives, and then allowing rates to be reset every few years to reflect supposed lower costs, the TELRIC standard virtually assures that the ILEC will be unable to earn a reasonable rate of return on its investment. Third, under the operating lease environment, Verizon Florida's customers are only committed to the lease on a monthly basis.

The mismatch between the size and maturity of Verizon Florida's investment and the short-term maturity of its customers' lease commitment increases the risk that Verizon Florida's return on investment will be less than its cost of capital.

Q. DO FINANCIAL MARKET PARTICIPANTS RECOGNIZE THAT CANCELABLE OPERATING LEASES INVOLVE SIGNIFICANTLY HIGHER RISK THAN NON-CANCELABLE FINANCIAL LEASES?

A. Yes. The higher risk of cancelable operating leases is widely recognized in the financial community. Examples of such recognition include:

- Car lessors require significantly higher monthly lease payments on short-term operating leases than on longer-term financial leases.
- Wireless service providers offer lower rates for customers who are willing to sign longer-term contracts.
- Independent power producers ("IPPs") can only obtain financing to build new electric generation facilities if they can prove they have

long-term purchase power agreements with utilities that commit utilities to purchasing power from the IPP over the life of the generating facilities. Without such agreements, the risks of building new generation facilities are simply too high to justify investment.

Q. WHY DOESN'T VERIZON FLORIDA CHOOSE TO REDUCE ITS INVESTMENT RISK BY OFFERING ITS CUSTOMERS DISCOUNTS FOR LONGER-TERM CONTRACTS?

A. Verizon Florida has no incentive to offer discounts on long-term lease contracts since current rates do not compensate Verizon Florida for the additional risks it incurs in providing interconnection under the TELRIC standard. Verizon Florida would only offer discounts for longer term leases if long-term leases would reduce Verizon Florida's risk of investment in the facilities required to provide interconnection and UNEs. Verizon Florida cannot reasonably be expected to offer discounts for longer-term leases if the additional risk premium for shorter-term leases is not reflected in the cost of capital input used in TELRIC cost studies. A cost of capital appropriate only for long-term leases should not be applied to short-term leases.

Q. ARE THE REGULATORY RISKS OF THE FCC'S FORWARD-LOOKING ECONOMIC COST STANDARD ALREADY INCLUDED IN THE COST OF CAPITAL ESTIMATE FOR YOUR PROXY COMPANY GROUP?

A. No. There are two reasons why the regulatory risks of the FCC's

forward-looking economic cost standard are not included in my cost of capital estimate for the proxy companies. First, while the proxy companies operate in competitive markets, their prices are not set by regulation, and certainly not by using the FCC's TELRIC standard. Thus, they are not subject to the unique regulatory risks associated with the FCC's forward-looking economic cost standard. Second, the DCF formula that I employed to estimate the cost of equity considers only the present value of expected future dividends for the proxy companies. It does not consider the risks of making long-term fixed investments in telecommunications facilities while ALECs can cancel their operating lease on a monthly basis.

Q. WHY IS IT IMPORTANT TO CONSIDER THE SIGNIFICANT RISKS OF THE FCC'S FORWARD-LOOKING ECONOMIC COST STANDARDS, IF INVESTORS—NOT REGULATORS—DETERMINE THE COST OF CAPITAL IN THE CAPITAL MARKETS?

A. There are at least two reasons for considering the significant risks of the FCC's cost standards. First, there are no publicly-traded companies whose sole business is constructing and operating a telecommunications network for the purpose of offering interconnection and UNEs. Thus, one must necessarily use cost of capital proxies whose stock is publicly traded, and whose risk approximates the risk of investing in the facilities to provide interconnection and UNEs. Furthermore, one must thoroughly understand the risks of the regulatory approach to setting TELRIC-based rates in order to properly evaluate

the results of applying cost of capital methodologies to these proxy companies. In short, the appropriate proxy companies may well depend on the regulator's approach to setting the expense and investment components of TELRIC-based costs.

Second, the cost of capital depends on the risk of the economic environment assumed in the TELRIC cost study. If one develops a TELRIC cost model based on a more risky economic environment, then the analyst must include this higher risk in the estimate of the cost of capital input for this cost model to be consistent. If the analyst does not include the higher risk in estimating the cost of capital input, the results of the economic cost study will be economically meaningless.

Q. WHAT DO YOU MEAN WHEN YOU SAY THAT THE RESULTS OF AN ECONOMIC COST STUDY WILL BE ECONOMICALLY MEANINGLESS IF THE ANALYST DOES NOT CONSIDER THE RISK OF THE REGULATORY APPROACH WHEN ESTIMATING THE COST OF CAPITAL?

A. The results would be economically meaningless because the resulting rates for interconnection and UNEs would not provide correct economic signals to either new entrants or incumbent LECs. If the Florida PSC adopts a cost of capital input for its TELRIC cost studies that does not reflect the full risks of providing access to UNEs under the FCC's TELRIC cost standard, then the resulting rates would be significantly less than the cost a new entrant would face in building its own network,

even if it is more efficient in building and operating the new network than the incumbent LEC. Thus, there would be no economic incentive for efficient entry.

With respect to the incumbent, a failure to include the full regulatory risk of the FCC's cost standard in the cost of capital input would cause rates for providing access to UNEs to be significantly less than the forward-looking economic cost of such access to UNEs. Thus, the LEC would have no economic incentive to continue to invest in the local exchange network, and the goal of the Telecommunications Act to bring the benefits of advanced technology and competition in the telecommunications market would be thwarted.

Q. HAS THE FCC RECOGNIZED THAT THE REGULATORY RISK OF ITS TELRIC COST STANDARD MUST BE CONSIDERED WHEN ESTIMATING THE COST OF CAPITAL COMPONENT OF TELRIC-BASED COST STUDIES?

A. Yes. In its reply brief filed in the TELRIC cases before the Supreme Court, the FCC stated that "an appropriate cost of capital determination takes into account not only existing competitive risks...but also risks associated with the regulatory regime to which a firm is subject." (Reply Brief for Petitioners United States and the FCC, Verizon Communications, Inc. et al. v. FCC et al. (Nos. 00-551, 00-555, 00-587, 00-590, and 00-602) at 12 n.8.)

Q. IN ADDITION TO THE RISK OF THE TELRIC MODEL ASSUMPTIONS, WHAT ARE THE MAJOR FACTORS THAT AFFECT THE RISK OF INVESTING IN THE FACILITIES REQUIRED TO PROVIDE INTERCONNECTION AND UNES IN FLORIDA?

A. The risk of investing in the facilities required to provide interconnection and UNEs in Florida depends on operating leverage, demand uncertainty, rapidly changing technology, the regulatory environment, and the features of Verizon Florida's lease contract with the ALECs.

Q. WHAT IS OPERATING LEVERAGE?

A. Operating leverage refers to the relationship between the company's revenues, on the one hand, and the company's fixed and variable costs on the other. The provision of facilities-based telecommunications services is a business that requires a large commitment to fixed costs in relation to variable costs, a situation called high operating leverage. The relatively high degree of fixed costs in the provision of facilities-based telecommunications service exists because of the average LEC's large investment in fixed assets such as central office, transport, and loop facilities. High operating leverage causes Verizon Florida's net income to be highly sensitive to fluctuations in revenues. There is a positive correlation between operating leverage and risk: as operating leverage rises, so does the risk of operation.

Q. IS THE DEMAND FOR LOCAL EXCHANGE SERVICE RELATIVELY CERTAIN?

A. No. The demand for local exchange service is becoming increasingly uncertain as a result of: (1) its sensitivity to the general level of economic activity; and (2) increased competition in the local exchange market.

Q. WHAT ARE THE SOURCES OF LOCAL EXCHANGE COMPETITION IN FLORIDA?

A. Numerous competitors have the facilities required to provide local exchange service in Florida. In addition, Florida is served by several wireless carriers that provide local and long distance telecommunications services at prices that are very competitive to the prices charged by Verizon Florida. In many cases, Florida customers can obtain a package of local and toll service from wireless carriers that may, in fact, cost less than Verizon Florida's service.

Q. IS VERIZON FLORIDA ABLE TO COMPETE ON EQUAL TERMS WITH COMPETITORS IN THE LOCAL EXCHANGE?

A. No. Verizon Florida faces a number of disadvantages in its efforts to compete in a fully competitive local exchange market. First, as the incumbent LEC, Verizon Florida has the unique obligation to incur the large capital expenditures required to provide telecommunications services to customers in Florida. Competitors, on the other hand, are able to serve customers in Florida without necessarily making any investment in network facilities. Thus, Verizon Florida bears the considerable risks associated with a large investment in a fixed cost

telecommunications network, while its competitors are free to enter and exit the market without incurring any fixed costs. The additional risks Verizon Florida incurs as a result of its large investment in the telecommunications network places Verizon Florida at a cost disadvantage relative to its competitors.

Second, Verizon Florida has the unique obligation to make significant investments in the facilities needed to provide interconnection and access to UNEs to competitors. Verizon Florida's competitors, however, have no obligation to lease these facilities from Verizon Florida for more than one month at a time. Thus, Verizon Florida faces the considerable risk that its investments in the network facilities needed to provide interconnection and access to UNEs to competitors will not be recovered.

Third, Verizon Florida has the unique obligation to share the benefits of network investments with competitors. When Verizon Florida invests to upgrade the technology in its network, Verizon Florida must share the benefits of this investment with competitors through resale and through leasing of UNEs. However, when Verizon Florida's competitors invest to upgrade the technology in their networks, Verizon Florida receives no benefit from the ALECs' investments because Verizon Florida's competitors are not required to unbundle their networks.

Q. HOW DOES THE EXISTING REGULATORY REGIME AFFECT VERIZON FLORIDA'S RISK?

A. It increases Verizon Florida's risk in several ways. First, as the incumbent local exchange provider, Verizon Florida's rates and services are still subject to regulation, while its competitors' rates and services are not. Being a regulated company in a competitive market is a highly risky proposition, as California's electric utilities and their investors have discovered.

Second, the FCC's TELRIC cost standard requires Verizon Florida to provide interconnection and UNEs to its competitors at rates that very likely will not allow it to cover the cost of its investment in network facilities.

Third, as the provider of last resort, Verizon Florida has the obligation to provide services to all customers, whether they are profitable or not. Each of these factors increases the risk of investing in Verizon Florida and thus increases Verizon Florida's cost of capital.

Q HOW DOES THE NATURE OF VERIZON FLORIDA'S LEASE CONTRACT WITH THE ALECS AFFECT THE RISK OF INVESTING IN THE FACILITIES REQUIRED TO PROVIDE INTERCONNECTION AND UNES?

A. As noted above, the cancelable nature of Verizon Florida's lease contract with the ALECs greatly increases Verizon Florida's risk of

investing in the facilities required to provide interconnection and UNEs. The financial markets recognize that a cancelable operating lease involves significantly more risk than a financial lease, and that, as a result, investors demand a higher rate of return on a cancelable operating lease than on a financial lease.

Q. HOW DOES THE FORWARD-LOOKING RISK OF INVESTING IN THE FACILITIES REQUIRED TO PROVIDE INTERCONNECTION AND UNBUNDLED NETWORK ELEMENTS UNDER THE TELRIC STANDARD COMPARE TO THE FORWARD-LOOKING RISK OF INVESTING IN THE S&P INDUSTRIALS?

A. The forward-looking risk of investing in the facilities required to provide interconnection and access to UNEs in Florida under the TELRIC standard is significantly greater than the forward-looking risk of investing in the S&P Industrials. As I noted above, the risk of investing in the facilities to provide interconnection and access to UNEs depends on operating leverage, demand uncertainty, rapidly changing technology, the regulatory environment, and the nature of the contract between the firm and its customers. The degree of operating leverage required to provide facilities-based telecommunications services far exceeds the average degree of operating leverage required to provide the goods and services offered by companies in the S&P Industrials.

Telecommunications is also a high technology business that is particularly sensitive to the risks of demand uncertainty and rapidly

changing technology. To be sure, the combination of demand uncertainty and rapidly changing technology has forced many companies in the telecommunications industry into bankruptcy. In addition, a regulatory environment that requires Verizon Florida to provide interconnection and access to UNEs to its competitors at rates that very likely will not allow it to cover the cost of its investment in network facilities, and that places restrictions on Verizon Florida in its ability to compete on equal terms with its competitors, exacerbates the risks.

Finally, the lease contract between Verizon Florida and its competitors requires that Verizon Florida make large fixed investments to build telecommunications network facilities while its competitors are able to cancel their service contract with Verizon Florida on a monthly basis. The financial community recognizes that cancelable operating leases are significantly more risky for the lessor than non-cancelable financial leases. These factors—high operating leverage, demand uncertainty, rapidly changing technology, the regulatory environment, and the cancelable nature of the operating lease Verizon Florida offers to its customers—make the risk of investing in the facilities required to provide interconnection and UNEs greater than the risk of investing in the S&P Industrials.

V. ESTIMATE OF THE WEIGHTED AVERAGE COST OF CAPITAL FOR USE IN TELRIC COST STUDIES

Q. HOW DID YOU CALCULATE THE WEIGHTED AVERAGE COST OF CAPITAL THAT YOU RECOMMEND FOR USE IN VERIZON FLORIDA'S FORWARD-LOOKING ECONOMIC COST STUDIES?

A. I calculated the weighted average cost of capital in two steps. First, I estimated the competitive market cost of capital by analyzing the market-based percentages of debt and equity in the capital structures of competitive firms, the market cost of debt, and the market-required rate of return on an equity investment in competitive firms of comparable risk. Second, I estimated the additional return, or risk premium, required to compensate Verizon Florida for the unique risk of having to make large, fixed investments in the telecommunications facilities required to provide interconnection and access to UNEs, while their customers have the option to cancel their lease contract on a monthly basis.

A. TARGET CAPITAL STRUCTURE

Q. HOW DID YOU DETERMINE AN APPROPRIATE TARGET CAPITAL STRUCTURE FOR USE IN VERIZON FLORIDA'S FORWARD-LOOKING ECONOMIC COST STUDIES?

A. To determine an appropriate target capital structure for use in Verizon Florida's forward-looking economic cost studies, I examined capital structure data for both my proxy group of S&P Industrials and a group of telecommunications companies with incumbent local exchange subsidiaries. I examined the most current available data for these

companies, and I also reviewed data for the past five years. In all periods, the average market value capital structure for these companies contains no more than 25% debt, and no less than 75% equity.

Q. WHAT ARE THE AVERAGE MARKET VALUE CAPITAL STRUCTURES OF THE S&P INDUSTRIALS AND THE TELECOMMUNICATIONS COMPANIES WITH INCUMBENT LOCAL EXCHANGE OPERATIONS?

A. Table 2 below shows the average year-end market value capital structures of the S&P Industrials and the telecommunications companies for the five-year period 1997 through 2001. These data show that both groups, on average, have at least 75% equity (and generally have more than 75% equity) in their capital structures.

Table 1

Capital Structure of the S&P Industrials
and Telecommunications Companies at Year End
($ in Millions)

	S&P Industrials			Telecom Companies		
	Market Value	Total Debt	Percent Equity	Market Value	Total Debt	Percent Equity
1997	2,080,904	235,259	89.8%	204,402	50,221	80.3%
1998	2,502,222	270.628	90.2%	308,895	53,124	85.3%
1999	2,639,323	308,404	89.5%	381,867	68,495	84.8%
2000	2,617,768	317,985	89.2%	398,400	112,479	78.0%
2001	2,383,103	343,324	87.4%	355,718	117,626	75.1%
Total	12,223,319	1,475,600	89.2%	1,649,282	401,946	80.4%

Q. WHAT IS YOUR RECOMMENDED CAPITAL STRUCTURE FOR USE IN VERIZON FLORIDA'S FORWARD-LOOKING ECONOMIC COST STUDIES?

A. I recommend the use of a market value capital structure in forward-looking economic cost studies in Florida because a market value capital structure is the only capital structure that is consistent with the forward-looking economic cost principles adopted by the FCC and this

Commission. Unlike a market value capital structure, a book value capital structure is based on the embedded or historical costs of Verizon Florida's assets. As the FCC states: "Embedded costs are the costs that the incumbent LECs carry on their accounting books that reflect historical purchase prices, regulatory depreciation rates, system configurations, and operating procedures." Local Competition Order at ¶ 632. Furthermore, the FCC has specifically stated that collocation rates cannot be based on embedded or historical costs. (See, for example, the Local Competition Order at ¶ 673: "In this section, we describe this forward-looking, cost-based pricing standard in detail. ...[W]e address potential cost measures that must not be included in a TELRIC analysis, such as embedded (or historical) costs." (Emphasis added.))

As demonstrated by the information provided above in Table 2, a reasonable target market value capital structure for Verizon Florida contains 25% debt and 75% equity. Thus, I recommend that a capital structure containing 25% debt and 75% equity be used to calculate Verizon Florida's weighted average cost of capital.

B. COST OF DEBT

Q. HOW DID YOU MEASURE THE MARKET COST OF DEBT INVESTMENTS?

A. I used the 7.40% average yield to maturity on Moody's A-rated industrial bonds for April 2002, as reported in the Mergent Bond Record. This estimate is conservative because it does not include the flotation costs that must be paid to issue the debt securities required to finance the building of local exchange facilities on a forward-looking basis.

C. COST OF EQUITY

Q. HOW DID YOU MEASURE THE MARKET COST OF AN EQUITY INVESTMENT IN VERIZON FLORIDA?

A. I applied the DCF Model to the S&P Industrials.

Q. WHY DID YOU APPLY THE DCF MODEL TO THE S&P INDUSTRIALS?

A. A proper definition of the cost of capital for use in Verizon Florida's forward-looking economic cost studies is based on the assumption that the market for local exchange services is competitive. As previously noted, Verizon Florida's collocation studies are consistent with the FCC's pricing rules, which simulate conditions in a competitive marketplace. However, at the present time, there are no publicly-traded companies that have built telecommunications networks solely for the purpose of providing UNEs in a competitive market. Since the S&P Industrials are a well-known sample of publicly traded competitive companies whose risk, on average, approximates the risk the incumbent LECs actually face in providing telecommunications services in a competitive market, I believe the S&P Industrial group is a conservative

proxy for the risks of investing in the facilities required to provide local exchange services on a forward-looking basis.

Q. WHAT DCF RESULT DID YOU OBTAIN FROM YOUR APPLICATION OF THE DCF MODEL TO THE S&P INDUSTRIALS?

A. As shown in Exhibit JVW-1, I obtained a market-weighted average DCF cost of equity of 14.13% for the S&P Industrials.

D. WEIGHTED AVERAGE COST OF CAPITAL

Q. WHAT IS YOUR ESTIMATE OF VERIZON FLORIDA'S OVERALL WEIGHTED AVERAGE COST OF CAPITAL, WITHOUT CONSIDERING THE UNIQUE RISKS OF THE TELRIC REGULATORY AND OPERATING ENVIRONMENT?

A. I estimate Verizon Florida's overall weighted average cost of capital, without considering the unique risks of the TELRIC regulatory and operating environment, to be 12.45%. This estimate is based on a 7.40% market cost of debt, a target market value capital structure containing 25% debt and 75% equity, and a cost of equity of 14.13% (see Table 3).

Table 2

Weighted Average Cost of Capital
Using 25% Debt/75% Equity Capital Structure

Source of Capital	Cost Rate	Percent	Weighted Cost
Debt	7.40%	25.00%	1.85%
Equity	14.13%	75.00%	10.60%
WACC			12.45%

E. ESTIMATE OF THE REQUIRED RISK PREMIUM

Q. WHAT METHODOLOGY DID YOU USE TO VALUE THE ALECS' OPTION TO CANCEL THEIR LEASE ONE MONTH AT A TIME?

A. I used the binomial option pricing methodology described in an article by Copeland and Weston, "A Note on the Evaluation of Cancellable Operating Leases," published in the Summer 1982 issue of Financial Management and provided as Attachment 1. This methodology is widely employed by financial analysts to value the options that are traded in financial markets.

Q. HOW DID YOU ESTIMATE THE REQUIRED RISK PREMIUM ON AN INVESTMENT IN THE FACILITIES REQUIRED TO PROVIDE INTERCONNECTION AND ACCESS TO UNBUNDLED NETWORK ELEMENTS UNDER THE TELRIC STANDARD WHEN CUSTOMERS

HAVE THE OPTION TO CANCEL THEIR LEASE OF VERIZON FLORIDA'S TELECOMMUNICATIONS FACILITIES ONE MONTH AT A TIME?

A. I estimated the required risk premium in several steps. First, I obtained data from Verizon Florida on its forward-looking investment, operating expenses, depreciation, and asset lives for the telecommunications facilities required to provide collocation in Florida.

Second, I calculated the minimum lease payments that would allow Verizon Florida to recover the cost of its investment, pay its operating expenses and taxes, and earn a fair rate of return of 12.45% on its investment under the assumption that ALECs cannot cancel their lease of Verizon's collocation facilities. In short, the lease payments in this step were calculated as if the ALECs' lease contract with Verizon Florida were a financial lease rather than an operating lease. Recall that a financial lease involves a commitment to lease an asset for its entire economic life, while an operating lease may be cancelled prior to the end of the economic life of the asset.

Third, I calculated the market value of the ALECs' option to cancel their lease contract with Verizon Florida using the binomial option pricing methodology noted above and described in the Copeland and Weston article provided in Attachment 1.

Fourth, I calculated the minimum lease payment that would allow

Verizon Florida to recover the cost of its investment, pay its operating expenses and taxes, and earn a fair rate of return on its investment if the ALECs have the option to cancel their lease contract on a monthly basis.

Fifth, I calculated the risk premium required to compensate Verizon Florida for the additional risk they incur when ALECs can cancel their lease on a monthly basis.

Q. HOW DID YOU CALCULATE THE MINIMUM LEASE PAYMENTS THAT WOULD ALLOW VERIZON FLORIDA TO RECOVER THE COST OF ITS INVESTMENT, PAY ITS OPERATING EXPENSES AND TAXES, AND EARN A FAIR RATE OF RETURN ON ITS INVESTMENT UNDER THE ASSUMPTION THAT THE ALECS SIGN A NON-CANCELABLE FINANCIAL LEASE FOR THE USE OF VERIZON FLORIDA'S TELECOMMUNICATIONS FACILITIES?

A. I calculated the lease payments by equating the present value of the cash inflows under the lease to the present value of Verizon Florida's cash outflows for investments, operating expenses, and taxes. Specifically, the calculation of the lease payments was made using the equation:

$$0 = -I + \sum_{t=1}^{T} \frac{(1-\tau_c)(L_t - O_t) + \tau_c D_t}{(1+ATWACC)^t} + \frac{MV}{(1+ATWACC)^T} \qquad (1)$$

where:

I = investment in the network on total network basis.

τ_c = composite corporate tax rate.

L_t = monthly lease payment.

D_t = monthly depreciation amount.

O_t = monthly operating expense.

T = number of months in life of asset.

MV = salvage value of asset.

Using the data shown in Exhibit JVW-2 and my estimate of Verizon Florida's after-tax weighted average cost of capital, Equation (1) can be solved for the unknown annual lease payments.

Q. AS NOTED IN EQUATION (1), YOU USE VERIZON FLORIDA'S AFTER-TAX WEIGHTED AVERAGE COST OF CAPITAL TO DISCOUNT LEASE CASH FLOWS IN YOUR ANALYSIS. WHY DID YOU DO THIS?

A. I used Verizon Florida's after-tax weighted average cost of capital to discount lease cash flows because the after-tax weighted average cost of capital best describes the financing mix and cost rates that Verizon Florida would need to use to finance its investment in the facilities required to provide interconnection and UNEs. ALECs who build their own facilities rather than leasing Verizon Florida's telecommunications facilities would likely face a higher weighted average cost of capital. Since ALECs lease from Verizon Florida as a substitute for building and owning their own telecommunications facilities, the after-tax weighted average cost of capital provides correct economic signals for the lease versus build decision.

Q. HOW DID YOU CALCULATE THE MINIMUM LEASE PAYMENT THAT VERIZON FLORIDA WOULD HAVE TO CHARGE IF THE ALECS HAVE THE OPTION TO CANCEL THEIR LEASE ON A MONTHLY BASIS?

A. The minimum lease payment required when ALECs have the option to cancel their lease contract on a monthly basis was found by equating the present value of the lease cash inflows to the sum of the present value of Verizon Florida's cash outflows for investment, operating expenses and taxes; and the value of the option to cancel the lease on short notice. Specifically, the calculation of the lease payment in this scenario was made using the equation:

$$0 = -I + \sum_{t=1}^{T} \frac{(1-\tau_c)(L_t - O_t) + \tau_c D_t}{(1+ATWACC)^t} + \frac{MV}{(1+ATWACC)^T} - P_A \qquad (2)$$

where P_A is the value of the option to cancel and the remaining variables are defined as in Equation (1).

Q. HOW DID YOU CALCULATE THE RISK PREMIUM REQUIRED TO COMPENSATE VERIZON FLORIDA FOR THE ADDITIONAL RISK THEY INCUR WHEN ALECS CAN CANCEL THEIR LEASE ON A MONTHLY BASIS?

A. I calculated the risk premium required to compensate Verizon Florida for the additional risk they incur when ALECs can cancel their lease on a monthly basis by substituting the value of the lease payments (obtained from Equation (2)) into Equation (1) and solving for the internal rate of return on investment. The resulting internal rate of return on a before-tax basis is 18.36%. The required risk premium is the difference

between the required rate of return on the cancelable operating lease and the required rate of return on the financial lease.

Q. WHAT IS YOUR CONCLUSION REGARDING THE COST OF CAPITAL APPROPRIATE FOR USE IN TELRIC COST STUDIES IN FLORIDA?

A. I conclude that the appropriate weighted average cost of capital for use in TELRIC collocation cost studies in Florida is 18.36%. My recommended weighted average cost of capital is based on my 12.45% estimate of the weighted average cost of capital without considering the risk that Verizon Florida incurs when ALECs have the option to cancel their lease on a monthly basis, and on my 5.92% estimate of the required risk premium to compensate Verizon Florida for the risk it incurs when ALECs are able to cancel their leases on a monthly basis.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

SURREBUTTAL TESTIMONY OF JAMES H. VANDER WEIDE

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at the Fuqua School of Business of Duke University. I am also President of Financial Strategy Associates, a firm that provides strategic and financial consulting services to clients in the electric, gas, insurance, telecommunications, and water industries. My business address is 3606 Stoneybrook Drive, Durham, North Carolina.

Q. ARE YOU THE SAME JAMES H. VANDER WEIDE WHO SUBMITTED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is twofold. First, it updates the cost of capital recommendation in my direct testimony to reflect cost of capital studies I have prepared since I submitted my direct testimony. Second, it responds to the recommended costs of capital for Verizon Florida Inc. ("Verizon FL") proposed by Mr. Steven E. Turner on behalf of AT&T Communications of Southern States, LLC ("AT&T") and Mr. Pete Lester on behalf of the Division of Economic Regulation of the Florida Public Service Commission ("Staff").

II. UPDATED COST OF CAPITAL RECOMMENDATION

Q. WHY ARE YOU UPDATING YOUR COST OF CAPITAL RECOMMENDATION IN THIS PROCEEDING?

A. My direct testimony was filed on February 4, 2003. In May 2003, I performed my annual update of Verizon's cost of capital studies. Because I have updated my cost of capital studies since the time my direct testimony was filed, Verizon FL asked me to update my recommendation based on my most recent cost of capital studies.

Q. ARE YOUR UPDATED COST OF CAPITAL STUDIES BASED ON THE SAME METHODOLOGIES YOU USED IN ARRIVING AT THE RECOMMENDED COST OF CAPITAL PRESENTED IN YOUR DIRECT TESTIMONY?

A. Yes.

Q. WHAT IS YOUR UPDATED COST OF CAPITAL RECOMMENDATION FOR USE IN VERIZON FL'S TELRIC-COMPLIANT COLLOCATION COST STUDIES IN THIS PROCEEDING?

A. My updated recommended cost of capital for use in Verizon FL's TELRIC-compliant collocation cost studies in this proceeding is 16.85%. This recommendation is based on my updated 12.03% estimate of the competitive market cost of capital and my 4.82% estimate of the risk premium required to allow Verizon FL an opportunity to earn the 12.03% competitive market cost of capital. The schedules supporting my updated

recommendation are attached as Exhibit JVW-1.

III. RESPONSE TO MR. TURNER

Q. WHAT IS MR. TURNER'S RECOMMENDED COST OF CAPITAL FOR VERIZON FL IN THIS PROCEEDING?

A. Mr. Turner recommends a 9.63% cost of capital for Verizon FL.

Q. DOES MR. TURNER RECOMMEND THE SAME COST OF CAPITAL FOR VERIZON FL THAT HE RECOMMENDS FOR BELLSOUTH AND SPRINT?

A. No. Mr. Turner recommends a 10.24% cost of capital for BellSouth and a 9.85% cost of capital for Sprint. Mr. Turner's recommended costs of capital for BellSouth and Sprint are both higher than his recommended cost of capital for Verizon FL, and his recommended cost of capital is *significantly* higher for BellSouth than for Verizon FL.

Q. HOW DOES THE RISK OF INVESTING IN VERIZON FL'S LOCAL EXCHANGE BUSINESS COMPARE TO THE RISK OF INVESTING IN THE LOCAL EXCHANGE BUSINESSES OF BELLSOUTH AND SPRINT?

A. The risk of investing in Verizon FL's local exchange business is indistinguishable from the risks of investing in the local exchange businesses of BellSouth and Sprint. All three companies face the risks of high operating leverage, uncertain demand, rapidly changing technology, and regulation under the TELRIC standard.

Q. DOES MR. TURNER'S CLIENT AT&T AGREE WITH YOUR OPINION THAT VERIZON FL'S PLANT IS SUBJECT TO THE SAME RISKS AS BELLSOUTH'S AND SPRINT'S?

A. Yes. When asked by Staff if "Verizon's plant is exposed to similar wear and tear, market competition, and technological changes as BellSouth" and Sprint, AT&T responded:

> Yes. There is no reason whatsoever to expect that technological changes affect the two companies' plant differently, nor is there any showing that wear and tear should be substantially different in various parts of the state. As for market competition, both companies are exposed to the similar same [*sic*] competitive regime. [AT&T Response to Staff's 6th Set of Interrogatories, Nos. 101 and 102.]

Q. WHY ARE INVESTORS' PERCEPTIONS OF RISK RELEVANT TO YOUR ASSESSMENT OF MR. TURNER'S RECOMMENDED COST OF CAPITAL FOR VERIZON FL?

A. Investors' perceptions of risk are relevant because investors will only invest in a company if they expect to earn a return that is commensurate with returns that they could earn on other investments of similar risk. Because the capital market data and evidence in this proceeding show that Verizon FL's competitive market cost of capital is significantly higher than any of Mr. Turner's recommendations, investors will have no incentive to invest in Verizon FL if any of Mr. Turner's recommendations are adopted.

Q. DOES MR. TURNER PROVIDE ANY ECONOMIC SUPPORT FOR HIS COST OF CAPITAL RECOMMENDATIONS?

A. No. Mr. Turner fails to support his cost of capital recommendations with any capital market data or evidence. He simply recommends that the Commission use the same cost of capital found in each company's last UNE proceeding.

Q. HOW DID THE COMMISSION ARRIVE AT ITS COST OF CAPITAL FINDING IN VERIZON FL'S LAST UNE PROCEEDING?

A. The Commission adopted the cost of capital recommendation of the Staff. However, Verizon FL is appealing this and other aspects of the Commission's UNE decision.

Q. HAS THE STAFF PRESENTED COST OF CAPITAL TESTIMONY IN THIS PROCEEDING?

A. Yes. The Staff recommends a cost of capital of 11.12% for Verizon FL based on the cost of capital evidence contained in the rebuttal testimony of Staff Witness Mr. Lester.

Q. ARE THERE ANY DIFFERENCES BETWEEN THE STAFF'S COST OF CAPITAL TESTIMONY IN THIS PROCEEDING AND ITS TESTIMONY IN THE UNE PROCEEDING?

A. Yes. The primary difference is that the Staff's cost of capital testimony in this proceeding specifically recognizes the FCC's recent clarification that

the risk-adjusted cost of capital used in TELRIC-compliant cost studies should reflect the risks associated with a fully-competitive telecommunications marketplace. Here, the Staff (1) relies on a large proxy group of companies operating in competitive markets and (2) employs a market value capital structure to estimate Verizon FL's TELRIC-compliant cost of capital. In contrast, the Staff's recommended 9.63% cost of capital in the UNE proceeding was based on a small proxy group of telecommunications companies and a book value capital structure. As a result, Staff's testimony in the prior UNE proceeding was not consistent with the FCC's TELRIC pricing principles.

Q. CAN YOU SUMMARIZE YOUR CRITICISMS OF MR. TURNER'S 9.63% RECOMMENDED COST OF CAPITAL FOR VERIZON FL?

A. Yes. First, Mr. Turner inconsistently recommends different costs of capital for companies with the same risk. Under his proposal, investors would have no incentive to invest in Verizon FL's local exchange business because they could earn a higher return on investments in BellSouth and Sprint.

Second, Mr. Turner's recommended cost of capital is not supported by any capital market data or evidence in this proceeding. The evidence shows that Verizon FL's cost of capital is significantly higher than Mr. Turner's recommendation.

Third, Mr. Turner's recommended cost of capital is based on Staff's

testimony in Verizon FL's last UNE proceeding, whereas Staff now recommends a significantly higher cost of capital. Staff's testimony in this proceeding properly recognizes the FCC's recent clarification on the proper cost of capital to be used in TELRIC-compliant cost studies.

Finally, Mr. Turner's recommendation fails to recognize that the Order in Verizon FL's last UNE proceeding is being appealed and that, as a result, the 9.63% cost of capital from the UNE proceeding may be overturned.

IV. RESPONSE TO MR. LESTER

Q. HOW DID MR. LESTER ARRIVE AT HIS 11.12% RECOMMENDED COST OF CAPITAL FOR VERIZON FL?

A. Mr. Lester arrived at his recommended 11.12% cost of capital in several steps. First, he identified a large group of risk proxy companies operating in competitive markets. Second, he estimated Verizon FL's cost of equity by applying a quarterly version of the DCF model to stock price, dividend, and growth data for his proxy companies. Third, he calculated the average market value capital structure of both his proxy company group and the three regional holding companies ("RHCs") with investment-grade bond ratings. Finally, he used his estimate of Verizon FL's cost of equity and market value capital structure, along with Verizon FL's estimate of the cost of debt, to calculate Verizon FL's weighted average cost of capital.

A. PROXY COMPANIES

Q. WHY DID MR. LESTER USE A GROUP OF COMPANIES OPERATING

IN COMPETITIVE MARKETS AS RISK PROXIES FOR VERIZON FL?

A. On page 5 of his rebuttal testimony, Mr. Lester states:

> I believe the risks facing the wireline telecommunications network, 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 internet services. Bypass risk is moderated somewhat by the financial 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.

Q. DO YOU AGREE WITH MR. LESTER'S OPINION THAT INCUMBENT WIRELINE TELECOMMUNICATIONS COMPANIES FACE COMPETITIVE RISKS THAT ARE SIMILAR TO THE RISKS FACED BY COMPANIES OPERATING IN COMPETITIVE MARKETS?

A. Yes. Mr. Lester correctly recognizes that incumbent wireline telecommunications companies face competitive risks similar to the competitive risks faced by other companies operating in competitive markets. For this reason alone, it is reasonable for Mr. Lester to use a

proxy group of companies operating in competitive markets.

Q. MR. LESTER'S STATEMENT ON PAGE 5 OF HIS REBUTTAL TESTIMONY REFERS TO THE ANNOUNCEMENT OF THE FCC'S TRIENNIAL REVIEW ORDER. HAS THE FINAL *TRIENNIAL REVIEW ORDER* BEEN ISSUED?

A. Yes. The *Triennial Review Order* was issued on August 21, 2003.

Q. DID THE FCC REITERATE IN ITS PUBLISHED ORDER THAT THE RISK-ADJUSTED COST OF CAPITAL USED IN TELRIC-COMPLIANT COST STUDIES SHOULD REFLECT THE RISKS ASSOCIATED WITH A COMPETITIVE MARKET?

A. Yes. In paragraphs 680 and 683 of the Triennial Review Order, the FCC stated:

> To ensure that UNE prices set by the states appropriately reflect the risks associated with new facilities and new services, we think it would be helpful to clarify two types of risks that should be reflected in the cost of capital. First, we clarify that a TELRIC-based cost of capital should reflect the risks of a competitive market. The objective of TELRIC is to establish a price that replicates the price that would exist in a market in which there is facilities-based competition. In this type of competitive market, all facilities-based carriers would face the risk of losing customers to other facilities-based

carriers, and that risk should be reflected in TELRIC prices.

...

Second, we clarify that a TELRIC-based cost of capital should reflect any unique risks (above and beyond the competitive risks discussed above) associated with new services that might be provided over certain types of facilities. [*Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98, 98-147 at ¶ 680, ¶ 683 (rel. Aug. 21, 2003) ("Triennial Review Order")]

Q. WHAT SPECIFIC RISK PROXY COMPANIES DID MR. LESTER USE TO ESTIMATE VERIZON FL'S COST OF EQUITY?

A. Mr. Lester used a proxy group of 657 Value Line companies with positive dividend and earnings growth rates, as estimated by Value Line.

Q. HOW DOES MR. LESTER'S PROXY GROUP OF VALUE LINE COMPANIES DIFFER FROM YOUR PROXY GROUP OF COMPANIES IN THE S&P INDUSTRIALS?

A. Mr. Lester's proxy group is generally quite similar to my proxy group of S&P Industrials. The primary difference is that Mr. Lester's group includes regulated utilities, while my group does not.

Q. WHY DID YOU EXCLUDE REGULATED UTILITIES FROM YOUR RISK PROXY GROUP?

A. I excluded regulated utilities because competition is not as advanced in the electric and natural gas utility markets as in telecommunications. In addition, I excluded regulated utilities because the FCC's standard requires the risk-adjusted cost of capital in TELRIC-compliant cost studies to reflect the risks of a market with full facilities-based competition.

Q. WHAT EFFECT DID MR. LESTER'S INCLUSION OF REGULATED UTILITIES HAVE ON HIS COST OF CAPITAL RESULTS?

A. As shown in Exhibit JVW-2, if Mr. Lester had excluded regulated utilities from his proxy group of Value Line companies, his estimate of Verizon FL's cost of equity would have increased from 12.64% to 12.75%, and the average equity percentage in the capital structure of his proxy group of companies would have increased from 74.4% to 76.45%.

B. DCF MODEL

Q. DO YOU AGREE WITH MR. LESTER'S USE OF THE QUARTERLY DCF MODEL TO ESTIMATE VERIZON FL'S COST OF EQUITY?

A. Yes. Since Mr. Lester's proxy companies pay dividends quarterly, the quarterly DCF model provides the most accurate estimate of the return investors require on investments in these companies.

Q. DO YOU AGREE WITH MR. LESTER'S USE OF A 4% FLOTATION COST ALLOWANCE IN ESTIMATING VERIZON FL'S COST OF

EQUITY?

A. Yes. A flotation cost allowance is required to compensate Verizon FL for the costs it would incur to finance its investment in its telecommunications network under the TELRIC standard. While I generally recommend the use of a 5% flotation cost allowance, the difference between a 5% flotation cost estimate and Mr. Lester's 4% flotation cost estimate is immaterial. Indeed, for competitive market proxy groups, a flotation cost allowance impacts the cost of equity result by only approximately 10 basis points.

Q. HOW DID MR. LESTER ESTIMATE THE GROWTH COMPONENT OF HIS DCF MODEL?

A. Mr. Lester estimated the growth component of his DCF model by averaging Value Line's estimates of dividend and earnings growth for each of his proxy companies.

Q. DO YOU AGREE WITH MR. LESTER'S USE OF THE AVERAGE OF VALUE LINE'S FORECASTED DIVIDEND AND EARNINGS GROWTH RATES AS HIS ESTIMATE OF GROWTH IN HIS DCF MODEL?

A. No. Value Line's current average *dividend* growth forecast for Mr. Lester's companies is based on its assumption that the average Value Line company is in the process of adjusting to a lower target dividend payout ratio. As shown below, dividends must grow at the same rate as earnings once the companies have achieved their new target dividend payout ratio. Thus, Value Line's forecasted *earnings* growth rate is a better estimate of long-run dividend growth than its current forecasted *dividend* growth rate.

Q. DO YOU HAVE ANY EVIDENCE THAT VALUE LINE'S AVERAGE DIVIDEND FORECAST FOR THE COMPANIES IN MR. LESTER'S RISK PROXY GROUP IS BASED ON THE ASSUMPTION OF A DECLINING DIVIDEND PAYOUT RATIO?

A. Yes. As shown in Mr. Lester's work papers, the average earnings growth forecast for the companies in Mr. Lester's risk proxy group is greater than the average dividend growth forecast for these companies. Whenever earnings are expected to grow at a faster rate than dividends, the dividend payout ratio will necessarily decline.

Q. SUPPOSE THAT ANALYSTS EXPECT A COMPANY'S DIVIDENDS TO GROW BY LESS THAN ITS EARNINGS OVER THE NEXT SEVERAL YEARS BECAUSE OF THE COMPANY'S TRANSITION TO A NEW, LOWER TARGET DIVIDEND PAYOUT RATIO. DOES THIS IMPLY THAT ANALYSTS' EARNINGS GROWTH PROJECTIONS FOR THIS COMPANY CANNOT BE USED TO ESTIMATE THE "G" TERM IN THE DCF MODEL?

A. No. To illustrate, suppose that a company's current dividend payout ratio is approximately 75 percent and that the company intends to adjust its dividend payout ratio to 60 percent. Once the company achieves its new dividend payout target, dividends will grow at the same rate as earnings. As long as the transition is relatively short, the earnings growth forecast would still be a good estimate of long-term dividend growth in the DCF Model. (To illustrate why the earnings growth forecast would be a good

estimate of long-term dividend growth, consider that, for any one year period of time, a company's earnings growth rate is given by the equation:

$$G_E = \frac{E_t}{E_{t-1}}$$

Assuming that the company has achieved its new dividend payout ratio of 60%, its dividend growth rate is given by the equation:

$$G_D = \frac{D_t}{D_{t-1}} = \frac{.6E_t}{.6E_{t-1}} = \frac{E_t}{E_{t-1}}$$

Thus, once the company achieves its new dividend payout ratio, dividends must grow at the same rate as earnings.)

Q. WHAT DCF RESULT WOULD MR. LESTER HAVE OBTAINED IF HE HAD USED THE VALUE LINE EARNINGS GROWTH FORECASTS TO ESTIMATE GROWTH IN THE DCF MODEL?

A. If Mr. Lester had used the Value Line earnings growth forecasts, as shown on Exhibit JVW-3, he would have obtained a DCF result of 13.97% -- a result that is virtually the same as the 13.95% cost of equity I obtained for my proxy group of companies. (The 13.97% DCF result is calculated by eliminating all companies with a cost of equity either below the 7.90% lower bound used by Staff or above a standard deviation from the mean.)

C. CAPITAL STRUCTURE

Q. WHY DOES MR. LESTER RECOMMEND USING A MARKET VALUE

CAPITAL STRUCTURE TO ESTIMATE VERIZON FL'S TELRIC-COMPLIANT COST OF CAPITAL?

A. On page 6 of his rebuttal testimony, Mr. Lester states:

> 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 market value capital structure is consistent with this goal.

Q. DO YOU AGREE WITH MR. LESTER'S STATEMENT THAT FINANCIAL THEORY SUPPORTS THE USE OF MARKET VALUE CAPITAL STRUCTURES TO ESTIMATE A COMPANY'S COST OF CAPITAL?

A. Yes. Financial theory undoubtedly supports the use of market value, rather than book value, capital structures to estimate a company's weighted average cost of capital. In reaching this conclusion, financial economists correctly recognize that investors make investment decisions based on market prices rather than accounting values.

Q. WHAT IS THE DIFFERENCE BETWEEN A MARKET VALUE CAPITAL STRUCTURE AND A BOOK VALUE CAPITAL STRUCTURE?

A. A market value capital structure measures the debt and equity components of a company's capital structure in terms of the market values of debt and equity, while a book value capital structure measures the capital structure

components in terms of the amounts of debt and equity shown on the company's books. Book value capital structures should not be used in forward-looking cost studies because book values inherently reflect historical, embedded, and accounting costs rather than forward-looking economic costs.

Q. WHAT SPECIFIC MARKET VALUE CAPITAL STRUCTURE DID MR. LESTER USE TO ESTIMATE VERIZON FL'S COST OF CAPITAL?

A. Mr. Lester used a market value capital structure containing 71% equity and 29% debt to estimate Verizon FL's weighted average cost of capital.

Q. HOW DID MR. LESTER ARRIVE AT HIS RECOMMENDED 71% EQUITY/29% DEBT MARKET VALUE CAPITAL STRUCTURE?

A. His recommended market value capital structure was based primarily on his estimate of the average market value capital structure of BellSouth, SBC, and Verizon, using debt values as of December 31, 2002, and equity values as of February 2003.

Q. WHAT IS THE LATEST AVERAGE MARKET VALUE CAPITAL STRUCTURE FOR THE RHCS USING REPORTED DATA FROM VALUE LINE?

A. As shown in Exhibit JVW-4, the most recent average market value capital structure for BellSouth, SBC, and Verizon, using data from Value Line, contains 74.4% equity and 25.6% debt.

Q. WHAT IS THE AVERAGE MARKET VALUE CAPITAL STRUCTURE OF MR. LESTER'S PROXY GROUP EXCLUDING THE REGULATED UTILITIES?

A. As noted above and shown in Exhibit JVW-2, the average market value capital structure of Mr. Lester's proxy group of competitive companies, excluding the regulated utilities, contains 76.45% equity and 23.55% debt, based on the data provided in Mr. Lester's work papers.

Q. DO MR. LESTER'S DATA SUPPORT YOUR RECOMMENDED 75% EQUITY/25% DEBT MARKET VALUE CAPITAL STRUCTURE FOR VERIZON FL?

A. Yes. These data provide additional support for my recommended 75% equity/25% debt market value capital structure for Verizon FL.

Q. IN YOUR CALCULATIONS OF THE MARKET VALUE CAPITAL STRUCTURES FOR YOUR PROXY COMPANIES, DID YOU INCLUDE BOTH SHORT-TERM AND LONG-TERM DEBT IN THE DEBT COMPONENT OF THE CAPITAL STRUCTURE?

A. Yes. To be conservative, I included both short-term and long-term debt in my calculations of the average total debt in the capital structures of both the S&P Industrials and the telecommunications companies. If I had excluded short-term debt from total capital, the percentage of debt in the capital structure of my proxy companies would have been even lower, and the percentage of equity would have been higher.

Q. DID MR. LESTER ALSO INCLUDE SHORT-TERM DEBT IN HIS CAPITAL STRUCTURE CALCULATIONS FOR HIS PROXY COMPANIES?

A. Yes.

Q. IS THERE ANY REASON WHY SHORT-TERM DEBT SHOULD BE EXCLUDED FROM THE MARKET VALUE CAPITAL STRUCTURES USED TO DETERMINE THE COST OF CAPITAL INPUT IN TELRIC-COMPLIANT COST STUDIES?

A. Yes. The proxy companies Mr. Lester and I examined primarily use short-term debt to finance working capital requirements, including investment in inventories and receivables. Short-term debt is generally not used to finance investments in long-term assets such as Verizon FL's investment in telecommunications network facilities. In addition, working capital is not included in the investment component of TELRIC cost studies. Thus, there are strong economic arguments for excluding short-term debt in the capital structure when calculating the weighted average cost of capital for use in TELRIC cost studies. If Mr. Lester had not included short-term debt in his capital structure calculations for his proxy companies, the reported percentage of equity is 76% for his telecommunications companies, and, for his large proxy group, 77% (even if regulated utilities remain in the proxy group).

Q. ON PAGE 7 OF HIS REBUTTAL TESTIMONY, MR. LESTER SUGGESTS THAT THE COMMISSION SHOULD USE A CONSERVATIVE

APPROACH, "SINCE MARKET VALUES FOR EQUITY VARY CONSIDERABLY AND CAN RESULT IN VERY HIGH LEVELS OF EQUITY IN THE CAPITAL STRUCTURE." DOES HIS ARGUMENT REFUTE YOUR RECOMMENDED 75% EQUITY/25% DEBT CAPITAL STRUCTURE FOR VERIZON FL?

A. No. My recommended 75% equity/25% debt capital structure is not only a reasonable estimate of the current market value capital structure for companies operating in competitive markets, but, as I have shown, is also a conservative estimate of the market value capital structure that has characterized these competitive companies in each of the last five years. Whatever variability occurs in market value capital structures is already accounted for in my conservative estimate of the appropriate market value capital structure in this proceeding.

Q. WHAT COST OF CAPITAL WOULD RESULT IF MR. LESTER HAD USED A 75% EQUITY/25% DEBT CAPITAL STRUCTURE AND THE 12.75% DCF RESULT FOR HIS PROXY COMPANIES EXCLUDING THE UTILITIES?

A. Mr. Lester would have obtained a cost of capital of 11.41%, as shown Exhibit JVW-5.

Q. WHAT COST OF CAPITAL WOULD RESULT IF MR. LESTER HAD USED A 75% EQUITY/25% DEBT CAPITAL STRUCTURE AND THE 13.97% DCF RESULT FOR HIS PROXY COMPANIES USING THE VALUE LINE EARNINGS GROWTH FORECAST?

A. Mr. Lester would have obtained a cost of capital of 12.33%, as also shown Exhibit JVW-5.

Q. ON PAGE 7 OF HIS REBUTTAL TESTIMONY, MR. LESTER STATES THAT, IF THE COMMISSION WERE TO REJECT THE USE OF A MARKET VALUE CAPITAL STRUCTURE, HE WOULD RECOMMEND A CAPITAL STRUCTURE CONTAINING 60% EQUITY AND 40% DEBT, BECAUSE SUCH A CAPITAL STRUCTURE WOULD BE CONSISTENT WITH PREVIOUS COMMISSION DECISIONS. DO YOU AGREE WITH MR. LESTER'S ALTERNATIVE RECOMMENDATION TO USE A CAPITAL STRUCTURE CONTAINING 60% EQUITY AND 40% DEBT?

A. No. Mr. Lester's alternative capital structure contains significantly less equity and more debt than the average market value capital structure of telecommunications companies or a large proxy group of companies operating in competitive markets. Mr. Lester was correct when he stated in his rebuttal testimony, "Financial theory supports the use of market value capital structures." Furthermore, the FCC's TELRIC guidelines require that TELRIC cost studies be based on forward-looking economic costs, not historical, embedded, or accounting costs. The only capital structure that is consistent with the FCC's requirement is a market value capital structure.

D. REQUIRED RISK PREMIUM

Q. WHAT IS THE PURPOSE OF YOUR RECOMMENDATION THAT A RISK

PREMIUM BE ADDED TO YOUR ESTIMATE OF VERIZON FL'S COMPETITIVE MARKET COST OF CAPITAL?

A. My recommended risk premium is required to allow Verizon FL an opportunity to earn its market cost of capital under the TELRIC standard. TELRIC-compliant cost studies are based on the assumption that collocation rates will be sufficient to allow Verizon FL to recover all variable and fixed costs of providing collocation services and to earn a fair rate of return on its investment in collocation arrangements. In practice, Verizon FL will not be able to recover these costs because competitors have the option to cancel their monthly lease of collocation arrangements before these costs can be fully recovered. Since Verizon FL will not have an opportunity to earn its market cost of capital—regardless of whether the Commission accepts Mr. Lester's 11.12% estimate or my 12.03% estimate of Verizon FL's cost of capital—a risk premium is required to allow Verizon FL an opportunity to actually earn its cost of capital.

Q. DO YOU HAVE ANY EVIDENCE THAT VERIZON FL WILL NOT HAVE AN OPPORTUNITY TO EARN ITS COST OF CAPITAL ON ITS INVESTMENT IN COLLOCATION ARRANGEMENTS UNDER THE TELRIC STANDARD?

A. Yes. Verizon FL's monthly recurring charges are designed to allow the Company an opportunity to recover its investment in collocation arrangements over their useful life. If Verizon FL makes investments in collocation arrangements and its ALEC customers cancel their monthly lease for these facilities before the investment in these facilities is fully

recovered, then Verizon FL will have no opportunity to earn its cost of capital. To determine whether Verizon FL has experienced such losses in practice, I asked Verizon FL to provide me with data on the number of collocation arrangements that have been requested by ALECs and provisioned for them and the current status of these arrangements. Of the 698 collocation arrangements that Verizon FL has provisioned for its ALEC competitors since 1999, only 240 are still in service. (See Exhibit JVW-6.) Thus, ALECs have cancelled nearly two-thirds of the total number of collocation arrangements they have ordered within the last few years -- before Verizon FL has had an opportunity to earn its cost of capital on its investment in these arrangements.

Q. DOES MR. LESTER HAVE ANY COMMENTS ON YOUR RECOMMENDATION TO ADD A REQUIRED RISK PREMIUM TO YOUR ESTIMATE OF VERIZON FL'S COMPETITIVE MARKET COST OF CAPITAL?

A. Yes. On page 11 of his rebuttal testimony, Mr. Lester states:

> I believe it is unnecessary. The risk of an ALEC customer canceling 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.

Q. DO YOU AGREE WITH MR. LESTER'S OPINION THAT YOUR REQUIRED REGULATORY RISK PREMIUM IS "UNNECESSARY"?

A. No. The data shown in Exhibit JVW-6 demonstrate that Verizon FL will have no opportunity to recover its investment in collocation arrangements or to earn its cost of capital on this investment unless the required risk premium is added to the competitive market cost of capital.

Q. DO YOU AGREE WITH MR. LESTER'S OPINION THAT COMPETITIVE COMPANIES "FACE SIGNIFICANT RISKS OF UNDERUTILIZED INVESTMENT AND THE INABILITY TO RECOVER SUNK COSTS" AND THAT COMPENSATION FOR THIS RISK IS ALREADY INCLUDED IN THE COMPETITIVE MARKET COST OF CAPITAL?

A. No. Mr. Lester fails to recognize that, while competitive companies face some risk of under-recovery of sunk costs, they generally include a sufficient premium in their rates to fairly compensate them for this risk. Thus, the ability of competitive companies to earn more than their cost of capital if their investment is fully utilized compensates them for the risk that their investment may be underutilized. In contrast, Verizon FL's rates only

allow Verizon FL an opportunity to recover its investment and earn its cost of capital if its investments are always fully utilized. The data in Exhibit 6 demonstrate that Verizon FL's investment in collocation arrangements have been substantially underutilized. Thus, a risk premium is required to give Verizon FL the same opportunity as competitive companies have to recover its investment and earn a return on that investment.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

COMMISSIONER DEASON: Mr. Chairman, I think that's evidence this docket has gone on too long when the witnesses start retiring.

CHAIRMAN BAEZ: I think you're right, Commissioner Deason. So we will show --

MR. McCUAIG: So the witness actually stipulated was Tony Flesch, but Tony Flesch had adopted Al Sovereign's testimony, which is why Verizon will move that the direct testimony of Al Sovereign filed February 4, 2003 and consisting of 19 pages be moved into the record.

CHAIRMAN BAEZ: Show the direct testimony of Mr. Allen Sovereign as adopted by Witness Anthony Flesch moved into the record as though read. And are there any exhibits to accompany that, Mr. McCuaig?

MR. McCUAIG: Yes, there are. There are two exhibits; they are titled, "AES-1 and AES-2." And Verizon would move those into the record as well.

CHAIRMAN BAEZ: We will mark AES-1 and AES-2 as Composite Exhibit 30 and be moved into the record without objection.

(Exhibit 30 marked for identification and admitted into the record.)

MR. McCUAIG: Verizon would also move that the surrebuttal testimony of Allen Sovereign filed September 25, 2003 and consisting of seven pages be moved into the record.

CHAIRMAN BAEZ: Show the surrebuttal testimony of Allen Sovereign moved into the record as though read. And are there any exhibits to the surrebuttal?

MR. McCUAIG: No, there are not.

CHAIRMAN BAEZ: Okay. No exhibits. Moving along. Thank you, Mr. McCuaig.

MR. McCUAIG: Thank you.

CHAIRMAN BAEZ: That's it for your witnesses?

MR. McCUAIG: Yes.

DIRECT TESTIMONY OF ALLEN E. SOVEREIGN

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, ADDRESS AND PRESENT POSITION.

A. My name is Allen E. Sovereign. My business address is 600 Hidden Ridge, Irving, Texas 75038. Verizon Services Corporation employs me as Group Manager-Capital Recovery.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. I received a Bachelor of Science Degree in Electrical Engineering from Michigan Technological University, Houghton, Michigan, in 1971. I received a Master of Science Degree in Business Administration from Indiana University, Bloomington, Indiana, in 1980. I have attended courses in depreciation and life analysis provided by Depreciation Programs, Inc., of Kalamazoo, Michigan. I have also attended and instructed basic and advanced GTE courses in depreciation life analysis. I am a Senior Member of the Society of Depreciation Professionals.

Q. PLEASE BRIEFLY DESCRIBE YOUR WORK EXPERIENCE WITH VERIZON.

A. I have worked for Verizon, and the former GTE Companies, for 29 years, with 22 of those years in the depreciation study area. I have held various positions in Engineering and Construction, Capital Budgeting, Marketing, and Product Development. I assumed my current position in June of 2000 with the merger of GTE and Bell Atlantic, which formed Verizon

Communications.

Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT POSITION?

A. I am responsible for the preparation, filing and resolution of capital recovery studies and the determination of economic lives for Verizon Service Corporation, Inc.

Q. HAVE YOU PREVIOUSLY TESTIFIED IN FLORIDA?

A. Yes. I participated in Verizon Florida Inc.'s ("Verizon FL") recent UNE proceeding, Docket 990649B-TP and universal service Docket 980696-TP.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY OTHER REGULATORY BODIES?

A. Yes, I have also testified before state utility commissions in Arkansas, California, Hawaii, Idaho, Illinois, Indiana, Iowa, Kentucky, Maryland, Massachusetts, Michigan, Nebraska, Nevada, New Mexico, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Virginia, Washington, and Washington DC. I have also testified before the Federal Communications Commission (FCC).

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of this testimony is to support the depreciation lives and future net salvages used in the collocation cost studies Verizon FL is proposing in this proceeding.

Q. IS VERIZON FL PROPOSING THE SAME DEPRECIATION LIVES ADOPTED IN THE RECENT UNE COST CASE?

A. No. Verizon FL is appealing the depreciation inputs adopted by the Florida Public Service Commission (the "FPSC" or "Commission") in Order No. PSC-02-1574-FOF-TP because they do not correctly reflect the forward-looking value of Verizon FL's assets. Thus, in this collocation proceeding, Verizon FL continues to advocate the use of economic lives (also known as financial reporting lives). Verizon FL will address in this proceeding the concerns raised in Order No. PSC-02-1574-FOF-TP regarding the use of Verizon FL's proposed depreciation inputs.

Q. IS VERIZON FL RECOMMENDING THE SAME LIVES IN THIS PROCEEDING THAT IT USES IN REPORTS FILED WITH THE COMMISSION?

A. Yes. Prior to 1996, the FPSC followed the traditional method, and prescribed depreciation rates and parameters to be used for intrastate financial reporting and other regulatory purposes. Since January 1996, however, Verizon has been permitted to set depreciation rates that reflect competitive and technological advancements in the marketplace. Verizon uses the same depreciation inputs for FPSC regulatory purposes that it uses for financial reporting purposes, and thus are the same inputs I recommend here.

Q. ARE VERIZON FL'S PROPOSED DEPRECIATION INPUTS CONSISTENT WITH GAAP PRINCIPLES?

A. The depreciation inputs used in Verizon FL's collocation cost studies were developed in accordance with Generally Accepted Accounting Principles (GAAP) and are the same inputs used in Verizon's financial reports. A complete list of Verizon's proposed depreciation lives and future net salvage percentages is attached as Exhibit AES-1.

Q. HAVE OTHER COMMISSIONS ADOPTED THE ILEC'S FINANCIAL REPORTING LIVES AS INPUTS TO UNE COST STUDIES?

A. Yes. Numerous state commissions have adopted the use of the former GTE's financial reporting lives in UNE studies. For example, in 1996, the California Public Utilities Commission ("CPUC") endorsed the use of economic lives for Verizon. The CPUC concluded that the economic lives used by GTE and Pacific Bell for external financial reporting were the appropriate forward-looking lives for cost studies. The CPUC rejected the suggestion made by AT&T and others that FCC-prescribed lives are forward-looking, stating:

> We agree with Pacific that the schedules formally adopted in the represcription proceeding reflect the previous paradigm of the regulated monopoly environment, and so are difficult to justify in a cost study that looks forward to an environment in which there is local exchange competition. We also see little merit in the Coalition's original suggestion that we use FCC schedules. These schedules also reflect the previous paradigm; moreover, they are based on different

assumptions and applied in different ways than our own. It also seems to be the case, however, that Pacific is now using these schedules in financial reports it is required to file, and thus for purposes of these cost studies, the schedules also appear consistent with generally accepted accounting principles. The schedules also appear realistic for a firm having to operate in a competitive environment, as Pacific will soon have to do. Accordingly, we will approve their use in this proceeding. (California Public Utilities Commission Decision No. D.96-08-021, August 2, 1996, in Rule Making R.93-04-003, I.93-04-002).

In 1997, the Missouri Public Service Commission, likewise adopted economic lives, stating:

Staff's goal has been to recommend depreciation rates based on parameters that GTE is likely to experience for financial purposes so as to fully recover its long run capital costs in a timely fashion. (Case No. TO-97-63, Missouri Public Service Commission, Final Arbitration Order, July 31, 1997, Attachment C at 76).

In 1998, the Michigan Commission approved GTE's use of economic lives:

> GTE proposes to reduce its asset lives in accordance with their economic lives....The Staff's view is that GTE's proposed asset lives are largely consistent with a forward-looking approach and are reasonable....The Commission finds that GTE's proposal related to depreciation is appropriate for TSLRIC purposes....The Commission further finds AT&T/MCI's proposal to be insufficiently forward looking for purposes of a TSLRIC study. (Michigan Docket No. U-11281, Feb. 25, 1998 Order, Section d).

II. ECONOMIC LIVES MUST BE USED IN FORWARD-LOOKING COST STUDIES

Q. PLEASE DEFINE THE TERM "ECONOMIC LIFE" AND HOW IT RELATES TO VERIZON'S COLLOCATION COST STUDIES.

A. The economic life of an asset is defined as the period of time over which it is used to provide economic value. For purposes of this proceeding, Verizon FL's collocation studies comply with the FCC's TELRIC rules, and thus require strictly forward-looking economic depreciation lives. Thus, Verizon's proposed depreciation parameters consider the decline in an asset's value from all causes, including competition and technological change.

Q. ARE THE DEPRECIATION INPUTS RECENTLY ADOPTED BY THE COMMISSION APPROPRIATELY FORWARD-LOOKING?

A. No. The lives recently set by the Commission, although more forward-

looking than lives set through the traditional regulatory process, are not the most accurate estimate of forward-looking value of Verizon FL's collocation assets.

Q. WHAT LIVES DID THE FPSC SET IN ITS RECENT UNE ORDER?

A. The chart below compares the FPSC-ordered depreciation lives in UNE Docket 990649B-TP with the depreciation lives Verizon uses in its collocation cost studies for the major structure and technology-sensitive accounts. A complete comparison of all accounts is attached as Exhibit AES-1.

CHART A

Comparison of FPSC-Ordered UNE Lives and Verizon's Proposed Depreciation Lives

	FPSC Ordered	Verizon Proposed
Digital Switching Equipment	13	12
Circuit Equipment	8	9
Buildings	45	33
Conduit	55	50
Copper Cable		
Aerial	18	15
Underground	23	15
Buried	18	15

	FPSC Ordered	Verizon Proposed
Fiber Cable		
Aerial	20	20
Underground	20	20
Buried	20	20

As the chart illustrates, the FPSC-ordered lives and Verizon's recommended lives are the same for some of the major technology-sensitive accounts listed above, but somewhat longer for other assets. Establishing the proper economic lives for Verizon's assets is critical for a forward-looking collocation cost study.

Q. WHY DID THE FPSC ADOPT SOME LIVES LONGER THAN THOSE RECOMMENDED BY VERIZON?

A. In Order No. PSC-02-1574-FOF-TP, the FPSC concluded, among other things, that Verizon did not provide sufficient evidence explaining the depreciation lives used by its competitors, which Verizon uses as a benchmark. Verizon will demonstrate in this proceeding the relevance of competitors' lives, through, for example, conducting discovery on AT&T and WorldCom.

III. COMPETITION AND TECHNOLOGICAL INNOVATION REQUIRE THE USE OF ECONOMIC LIVES

Q. WHAT FACTORS SHOULD THE COMMISSION CONSIDER IN

APPROVING DEPRECIATION INPUTS IN THIS PROCEEDING?

A. The two most important factors that must be considered in establishing the economic value of the Verizon assets used to provide collocation are: (1) technological innovation; and (2) impact of competition.

Q. WHAT TECHNOLOGICAL INNOVATIONS WERE CONSIDERED IN ESTABLISHING VERIZON'S ECONOMIC LIVES?

A. Prior to the passage of the 1996 Telecommunications Act, depreciation analysis consisted primarily of mortality analysis with only slight adjustments for technological change. Now, the rapid pace of advancement in technological innovations must be considered in establishing the depreciation inputs for Verizon's assets. Most significantly, alternative technologies that allow customers and competitors to bypass the local loop have developed, and these technologies threaten to render the local loop obsolete. Examples of these alternative technologies are wireless systems and data-intensive CATV systems. Thus, for example, Verizon's lives for copper cable, used in the collocation cost studies, are affected by this changing technology.

Q. WHAT KINDS OF COMPETITIVE DEVELOPMENTS WERE CONSIDERED IN ESTABLISHING VERIZON'S ECONOMIC LIVES?

A. The depreciation lives used in Verizon FL's collocation studies are also affected by the level of competition expected in the forward-looking network. Florida is a particularly attractive market for entry by alternative competitive local exchange carriers, as evidenced by the extensive local

exchange competition in the state. Around 400 CLECs, with access to all of Verizon FL's lines, are certificated to offer local exchange service. CLECs own and operate at least 36 switches in Verizon's service area; and facilities-based competitors include, among others, 2nd Century, AT&T, Intermedia, ITC DeltaCom, KMC, MCI WorldCom, Sprint, Teligent, and Time Warner.

In its recent report, The Division of Policy Analysis and Intergovernmental Liaison recently concluded that evidence is mounting that local broadband services markets are increasingly competitive. ILECs are, and will be, competing on a number of fronts to avoid losing market share. Many consumers now have a number of choices for local telephone and broadband services from a variety of service providers and technologies. Indeed, cable, wireless, satellite, competitive local exchange companies are fiercely competing with the ILECs. The impact of this competition is beginning to show: a number of ILECs are experiencing declines in the number of access lines in service. (Understanding the Local Exchange and Broadband Markets in Florida, Telecommunications Competition and its Developments, Prepared by The Division of Policy Analysis and Intergovernmental Liaison, October 2001, page 26).

That same report stated that the telecommunications industry is undergoing dramatic structural and technological changes. "The global phone system is on the verge of its biggest technology shift since Alexander Graham Bell's invention eclipsed the telegraph." (*Id.*, quoting a

June 24, 2001, Florida Times Union article.) Data traffic has now surpassed voice traffic and continues to grow. Present technology allows all information to be converted into digital format at one end of the transmission and reconverted at the other. Thus, it is now possible to deliver integrated voice, data and video services over existing connections. This opens up tremendous possibilities for new applications, revenue sources, and network efficiencies for companies that successfully converge the distinct voice and data technologies and networks so that integrated services can be brought into homes and businesses over a single broadband connection. Broadband deployment heralds the beginning of this convergence. (Understanding the Local Exchange and Broadband Markets in Florida, Telecommunications Competition and its Developments, Prepared by The Division of Policy Analysis and Intergovernmental Liaison, October 2001, page 25). These developments significantly impact existing facilities. For instance, digital switching (whose depreciation life is an input in collocation power studies) will likely be replaced by packet switches, which offer advanced capabilities.

The FPSC's December 2000 Report on Competition in Telecommunications Markets in Florida likewise noted the competitive strides ALECs have made and continue to make in Florida. The Commission's own statistics (based on ALECs' self-reported data) demonstrate accelerating competitive activity in Verizon's territory, particularly in the business market. This trend will only become more pronounced, as more and more competitors enter the market.

Q. SHOULD ONLY THE CURRENT LEVEL OF COMPETITION AND TECHNOLOGY BE CONSIDERED IN DEVELOPING DEPRECIATION INPUTS?

A. No. In developing depreciation lives, Verizon FL also considers future competition and advancements in technology over the entire expected life of the assets.

IV. VERIZON PROPERLY WEIGHS ALL RELEVANT FACTORS IN DETERMINING ECONOMIC LIVES.

Q. WHAT METHOD DOES VERIZON USE TO DETERMINE THE ECONOMIC LIFE OF AN ASSET?

A. When estimating economic lives, Verizon (a) evaluates the criteria that are used to establish the retirement lives of assets as a guideline for estimating economic lives, (b) considers industry benchmark comparisons, and (c) considers the effect the evolving competitive market will have on the economic lives of many of Verizon's assets.

Q. WILL YOU PLEASE EXPLAIN THE USE OF THESE FACTORS IN MORE DETAIL?

A. Verizon first considers the National Association of Regulatory Utility Commissioners' description of factors that cause property to be retired. (Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners (NARUC), 1996, at 15).

These include:

1. Physical Factors
   a. Wear and tear
   b. Decay or deterioration
   c. Action of the elements and accidents
2. Functional Factors
   a. Inadequacy
   b. Obsolescence
   c. Changes in art and technology
   d. Changes in demand
   e. Requirements of Public Authorities
   f. Management discretion
3. Contingent Factors
   a. Casualties or disasters
   b. Extraordinary obsolescence

These same factors can be used to help estimate an asset's economic life expectancy by allocating the appropriate weighting to each factor. That is, they can be used as a guideline for choosing economic lives of certain assets, but only after the proper weight is allocated to the effects of competition and technological change.

The "Functional Factors" (Part 2 of the NARUC factors) are sensitive to competition and technological change and are given substantially greater weight when Verizon considers the NARUC criteria in establishing the

economic lives of Verizon's assets. As I explained above, the effects of competition and technological change on an asset's economic life must be properly considered when determining competitive market asset lives. It has long been recognized in the industry that traditional methods for determining lives for accounts most affected by technology and competition are inadequate. Most Commissions, including this one, have thus seen it fit to make adjustments to the physical life indications produced by historical mortality analysis.

Q. WHAT OTHER GUIDES DO YOU USE IN ESTABLISHING ASSET LIVES?

A. To determine the reasonableness of Verizon's lives, Verizon also benchmarks against competitors, such as AT&T, MCI WorldCom, and cable television providers, and considers industry studies performed by Technology Futures Inc. ("TFI").

Q. PLEASE EXPLAIN WHY BENCHMARKING IS USEFUL AND APPROPRIATE.

A. Verizon FL benchmarks its competitors to assess the reasonableness of its recommended depreciation lives. As we transition to a competitive environment, all carriers should be treated the same with respect to setting depreciation rates. Indeed, competitors' depreciation rates are not reviewed or approved by any regulatory body, and are a good guide to reasonable practices in a competitive market. A table illustrating the results of Verizon's Benchmarking Study is contained in Exhibit AES-2.

Q. WAS IT APPROPRIATE TO REJECT THE USEFULNESS OF SUCH BENCHMARKING IN ORDER NO. PSC-02-1574-FOF-TP?

A. No. In Order No. PSC-02-1574-FOF-TP (pp 73-74), the Commission wrongly determined that the relevance of competitors' depreciation lives could not be determined without an understanding of the basis or assumptions underlying those lives. Based on this description, the Commission's decision sounds logical. In that proceeding, Verizon obtained highly relevant information regarding the lives used by its competitors, which the Commission wrongly disregarded in its Order. Verizon intends to pursue this issue on appeal. In this proceeding, however, Verizon will attempt to gather additional evidence from its competitors, through the discovery process, to address the Commission's concerns.

Q. HOW DO VERIZON'S ECONOMIC DEPRECIATION LIVES COMPARE WITH THOSE OF WORLDCOM AND AT&T?

A. The economic depreciation lives employed by AT&T are shorter than those employed by Verizon. AT&T's 2001 annual report lists the following useful life ranges: 3 to 15 years for communications and network equipment; 3 to 7 years for other equipment; and 10 to 40 years for buildings and improvements. In contrast, Verizon believes that an asset's useful life ranges from 9 to 20 years for communications and network equipment (9 to 50 including poles and conduit); 5 to 12 years for other equipment; and 33 years for buildings.

WorldCom's 2001 annual report states that, for the MCI Group, the useful life ranges from 4 to 10 years for transmission equipment, 5 to 10 years for communications equipment; and 4 to 39 years for furniture, fixtures, and buildings; and 4 to 39 years for other equipment. For the WorldCom Group, the useful life ranges from 4 to 40 years for transmission equipment (including conduit); 5 to 10 years for communications equipment; and 4 to 39 years for furniture, fixtures, buildings and other equipment. Verizon FL's recommendations are very comparable, ranging from 9 to 20 years for transmission equipment (9 to 50 including poles and conduit); 9 to 12 years for communication equipment; 5 to 12 years for furniture, fixtures, and equipment; and 33 years for buildings.

Q. WHAT WAS DETERMINED BY THE COMPARISONS TO LIVES USED BY THE CABLE TELEVISION (CATV) OPERATORS?

A. Verizon's lives are not as short as the lives used by CATV operators. For example, the FCC adopted useful lives for cable distribution facilities in the 10 to 15 years. In contrast, Verizon proposes a 15-year economic life for copper cable and the 20-year life for fiber cable. Additionally, the lives proposed by Verizon for support assets such as office furniture and equipment, vehicles, and buildings are reasonable when compared to the FCC-allowed ranges for CATV operators. The FCC CATV range for office furniture and equipment is 9 to 11 years, which compares favorably to Verizon's proposal of 10 to 15 years for these accounts. The FCC range for vehicles and equipment is 3 to 7 years, which is shorter than Verizon's proposal of 8 to 12 years. The FCC range for buildings is 18 to 33 years,

which is shorter than Verizon's proposal of 33 years. (FCC MM Docket No. 93-215, Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation and FCC CS Docket No. 94-28, Adoption of a Uniform Accounting System for Provision of Regulated Cable Service, Second Report and Order, First Order on Reconsideration, and Further Notice of Proposed Rulemaking, January 26, 1996).

Q. PLEASE EXPLAIN VERIZON'S USE OF THE INDUSTRY STUDIES PERFORMED BY TECHNOLOGY FUTURES INC. (TFI).

A. TFI forecasts the remaining lives for certain assets when technological change is shortening their useful lives. To quantify technological change, TFI employs a model using patterns of technological substitution observed in the communications industry, as well as other industries. The industry studies conducted by TFI forecast the combined effects that competition and technological change will have on an asset's remaining useful life.

Q. WHAT DO THE TFI STUDIES RECOMMEND VERIZON USE AS ECONOMIC LIVES FOR ITS ASSETS?

A. Verizon's recommendations are in line with TFI's recommended economic life ranges, as shown by the following chart. (*Transforming the Local Exchange Network: Analyses and Forecasts of Technology Change*, Larry K. Vanston, Ray L. Hodges, and Adrian J. Poitras, 2d Ed. 1997, Technology Futures, Inc., at 33).

Comparison of The TFI Ranges with Verizon's Proposed Economic Lives

	TFI Ranges	Verizon Economic
Digital Switching Equipment	9-12	12
Circuit Equipment	6-9	9
Copper Cable	14-20	15
Fiber Cable	20	20

TFI specifically addresses the appropriate lives to be used for outside plant cable, central office switching, and circuit equipment accounts, because these accounts are most affected by changes in competition and technology.

VI. CONCLUSION

Q. PLEASE SUMMARIZE YOUR DIRECT TESTIMONY.

A. Verizon FL's proposed depreciation inputs are properly forward-looking and are the most accurate estimate of the length of time over which Verizon's assets will produce economic value. Verizon's proposed lives are reasonable in comparison to the financial reporting lives of competitive telecommunications providers and should be approved by this Commission for use in establishing collocation rates. The Commission's decision in its recent UNE order did not appropriately reflect Verizon's forward-looking

lives and should not be adopted in this proceeding.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

SURREBUTTAL TESTIMONY OF ALLEN E. SOVEREIGN

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Allen E. Sovereign. My business address is 600 Hidden Ridge, Irving, Texas 75038.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes. I filed direct testimony on behalf of Verizon Florida Inc. ("Verizon FL") on February 4, 2003. I described my education and work experience in that testimony.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. My surrebuttal testimony responds to the Rebuttal Testimony of Patricia S. Lee on behalf of Staff of the Florida Public Service Commission ("Staff"). In particular, my testimony shows that the depreciation lives and net salvage values provided in my direct testimony are well supported.

Q. PLEASE SUMMARIZE YOUR SURREBUTTAL TESTIMONY.

A. Verizon FL has provided extensive support for its proposed depreciation lives and net salvage values. In addition to the support described in my direct testimony, Verizon FL has further justified its depreciation inputs in its discovery responses. Those discovery responses, which Ms. Lee noted were forthcoming at the time she filed her rebuttal testimony,

directly address Ms. Lee's concerns regarding the support for Verizon FL's proposals in this proceeding.

Q. IS MS. LEE CORRECT THAT THE COMMISSION NEED ONLY ADDRESS THE DEPRECIATION INPUTS THAT WERE USED IN VERIZON FL'S COLLOCATION COST STUDY?

A. Yes. As Verizon FL stated in its discovery responses, there are only seven accounts that were used in Verizon FL's collocation cost study: (1) Land, (2) Buildings, (3) Digital Electronic Switching, (4) Circuit Equipment, (5) Underground Cable -- Metallic, (6) Underground Cable -- Fiber, and (7) Conduit Systems. *See* Verizon FL Responses to Staff's Fifth Set of Interrogatories, No. 91, 92.

Q. PLEASE BRIEFLY DESCRIBE VERIZON FL'S PROPOSED DEPRECIATION INPUTS FOR THIS PROCEEDING.

A. As I explained in my direct testimony, Verizon FL's proposed depreciation lives are the same lives that Verizon FL uses for financial reporting purposes. Those inputs, which are consistent with Generally Accepted Accounting Principles ("GAAP"), have been adopted by numerous state commissions for use in UNE cost studies. To ensure the reasonableness of its proposed depreciation lives, Verizon FL benchmarked them against the depreciation lives used by its competitors (including AT&T, MCI WorldCom, and cable television providers) as well as those recommended in industry studies performed by Technology Futures, Inc. ("TFI").

Q. DOES MS. LEE QUESTION THE USE OF GAAP LIVES IN A UNE STUDY?

A. No. Ms. Lee does not state that Verizon FL's reliance on GAAP lives is inappropriate or that GAAP lives should never be used in a cost study. Nor does she question whether Verizon FL's proposed depreciation inputs actually comply with GAAP. Rather, she states that the Commission should not adopt these lives because Verizon FL has not provided company-specific data or analyses indicating how these inputs were developed.

Q. HAS VERIZON FL ADDRESSED MS. LEE'S CONCERNS REGARDING ITS PROPOSED DEPRECIATION INPUTS?

A. Yes. In Verizon FL's discovery responses, Verizon FL provided written descriptions of the analyses and data used to develop its proposed depreciation inputs for this proceeding, and provided much of the underlying data itself. *See generally, e.g.*, Verizon FL Responses to Staff's Fifth Set of Interrogatories, Nos. 73-92; Verizon FL Responses to Staff's Sixth Request for Production of Documents, No. 63. Those discovery responses bolster my direct testimony, and demonstrate that Verizon FL's proposed depreciation lives and future net salvage values are justified.

Q. DOES MS. LEE CHALLENGE THE USE OF BENCHMARKING IN DEVELOPING DEPRECIATION LIVES?

A. No. Ms. Lee agrees that benchmarking is a "useful tool" in determining

depreciation lives. Lee Rebuttal Testimony at 13. She also states that TFI's reports provide a valid tool for developing depreciation lives. *See id.* at 14. Her only criticism is that she cannot determine whether Verizon FL used appropriate benchmarks without a better understanding of how they were developed.

Q. HAS VERIZON FL PROVIDED ADDITIONAL INFORMATION REGARDING THE LIVES AGAINST WHICH IT BENCHMARKED ITS PROPOSED DEPRECIATION INPUTS?

A. Yes. In its discovery responses, Verizon FL described several of the factors underlying its competitors' depreciation lives. *See* Verizon FL Responses to Staff's Fifth Set of Interrogatories, No. 82. Verizon FL also described the considerations underlying TFI's recommended depreciation lives. *See* Verizon FL Responses to Staff's Fifth Set of Interrogatories, No. 90; Verizon FL Responses to Staff's Sixth Set of Interrogatories, Nos. 113-114. Finally, Verizon FL sought and received discovery responses from AT&T regarding AT&T's depreciation lives and the process by which they were developed. *See* AT&T Responses to Verizon FL's Second Set of Interrogatories, Nos. 16-20.

Q. HOW DO YOU RESPOND TO MS. LEE'S RECOMMENDATION THAT THE COMMISSION ADOPT THE SAME DEPRECIATION INPUTS THAT IT ADOPTED FOR VERIZON IN ITS ORDER NO. PSC-02-1574-FOF-TP?

A. As I stated in my direct testimony, the depreciation inputs previously

adopted by the Commission for Verizon FL are not sufficiently forward-looking and have therefore been appealed. Ms. Lee recommends that the Commission adopt the same lives here "based on the fact that no new information or evidence has been presented to warrant a different conclusion." Lee Rebuttal Testimony at 21. Contrary to Ms. Lee's assertion, Verizon FL has presented additional information that warrants a different result in this proceeding. In its discovery responses Verizon FL described changes since the Commission's decision in November 2002 that warrant shorter depreciation lives, such as the recent economic slowdown and the delayed realization of new switching technologies. *See* Verizon FL Responses to Staff's Fifth Set of Interrogatories, Nos. 79-80. Moreover, the financial reporting lives that Verizon FL proposes should be used because they are continuously reviewed and thus account for such ongoing developments.

Q. PLEASE COMMENT ON THE IMPACT THAT THE FCC'S RECENT TRIENNIAL REVIEW ORDER SHOULD HAVE ON THE SELECTION OF DEPRECIATION INPUTS IN THIS PROCEEDING.

A. In its recent *Triennial Review Order*, the FCC declined to prescribe one particular set of depreciation inputs to be used in UNE studies. Thus, the Commission retains discretion to select whatever asset lives it chooses for calculating depreciation expense.[1]

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[1] *See* Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, ¶ 688 (rel. Aug. 21, 2003) ("*Triennial Review Order*").

Q. PLEASE RESPOND TO MS. LEE'S ALTERNATIVE RECOMMENDATION THAT THE COMMISSION ADOPT THE DEPRECIATION INPUTS PREVIOUSLY APPROVED BY THE FCC.

A. The FCC depreciation lives that Ms. Lee cites as an alternative proposal are even less forward-looking — and thus less adequate — than those previously adopted by this Commission. The FCC lives reflect the interstate depreciation rates set by the FCC in 1995 — before the passage of the Telecommunications Act and prior to this Commission's issuance of its Order No. PSC-02-1574-FOF-TP. These FCC prescribed lives thus do not reflect critical developments that must be considered in any forward-looking depreciation analysis, such as the full impact of the technological changes and advances that have occurred since 1995. Accordingly, the FCC prescribed lives are plainly inappropriate and inadequate for this proceeding.

Q. DOES THE FCC WIRELINE COMPETITION BUREAU'S RECENT DECISION IN THE VIRGINIA ARBITRATION AFFECT WHICH SET OF DEPRECIATION LIVES SHOULD BE ADOPTED IN THIS PROCEEDING?

A. No. The FCC Wireline Competition Bureau (*i.e.*, the FCC's staff) recently approved the use of the low end of the FCC ranges in Virginia, declining to adopt both Verizon VA's proposal to use GAAP lives and the CLECs' proposal to use the FCC prescribed lives for Virginia.[2]

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[2] *See* Memorandum Opinion and Order, *Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, CC Docket Nos. 00-218, 00-251, ¶ 112 (rel. Aug. 29, 2003).

However, the Bureau's decision not to adopt Verizon VA's proposal was based in part on its desire for more information about the methodology by which Verizon VA developed its proposed depreciation inputs.[3] As explained above, in this proceeding Verizon FL has produced additional evidence supporting its proposals. Therefore, the Bureau's record-specific, staff-level decision should have no bearing on the Commission's resolution of this issue, and the Commission should adopt Verizon FL's recommended depreciation lives and salvage values.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

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[3] *See id.* ¶ 116.

CHAIRMAN BAEZ: I'm showing, Mr. Hatch, Witness Murray.

MR. HATCH: AT&T would request that the testimony of -- or the surrebuttal testimony of Terry Murray be inserted into the record as though read.

CHAIRMAN BAEZ: Show the surrebuttal testimony of Witness Terry Murray moved into the record as though read. Does he have any --

MR. HATCH: She has --

CHAIRMAN BAEZ: I'm sorry.

MR. HATCH: -- four exhibits.

CHAIRMAN BAEZ: Okay.

MR. HATCH: They would be listed -- identified as TLM-1 through TLM-4. We would move that those be admitted into the record.

CHAIRMAN BAEZ: And we will give them Composite Exhibit Number 31 and moved into the record without objection. That takes care of Witness Murray, does it, Mr. Hatch?

MR. HATCH: I believe that's correct.

(Exhibit 31 marked for identification and admitted into the record.)

I. INTRODUCTION AND SUMMARY

Q. Please state your name, title and business address.

A. My name is Terry L. Murray. I am President of the consulting firm Murray & Cratty, LLC. My business address is 8627 Thors Bay Road, El Cerrito, CA 94530.

Q. Please describe your qualifications and experience as they pertain to this proceeding.

A. I am an economist specializing in analysis of regulated industries. I received an M.A. and M.Phil. in Economics from Yale University and an A.B. in Economics from Oberlin College. At Yale, I was admitted to doctoral candidacy and completed all requirements for the Ph.D. except the dissertation. My fields of concentration at Yale were industrial organization (including an emphasis on regulatory and antitrust economics) and energy and environmental economics.

My professional background includes employment and consulting experiences in the fields of telecommunications, energy, and insurance regulation. I have testified on cost of capital matters in each of these fields. As a consultant, I have testified or served as an expert on telecommunications issues in proceedings before state regulatory commissions in Alaska, California, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Jersey, New York, North Carolina, Ohio,

Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, Washington, and Wisconsin, and before the Federal Communications Commission ("FCC").

Before I became a consultant in 1990, I was employed for approximately six years at the California Public Utilities Commission in a variety of positions, beginning as a cost of capital analyst and culminating in my service as Director of the Division of Ratepayer Advocates. In virtually all of these positions, I had significant responsibility for telecommunications matters. I have also taught economics and regulatory policy at both the undergraduate and graduate levels. My curriculum vitae, included as Exhibit TLM-1 to this testimony, provides more detail concerning my qualifications and experience.

Q. What is the purpose of your testimony?

A. AT&T Communications of the Southern States, LLC, and TCG South Florida, Inc. (collectively, "AT&T") have asked me to respond to the rebuttal testimony of Florida Public Service Commission Staff ("Staff") witness Pete Lester on cost of capital and to discuss the cost of capital that should be used in a forward-looking economic cost study of collocation services for Verizon in Florida.

Q. What role does the weighted-average cost of capital ("WACC") play in an analysis of collocation costs?

A. Collocation cost studies employ the same Total Element Long Run Incremental Cost ("TELRIC") principles as do cost studies of unbundled network elements. Among the most significant inputs into a forward-looking economic cost analysis for a provider of unbundled network elements ("UNEs") and collocation services is the assumed cost of capital. "The TELRIC of a network element is the sum of three components—operating expenses, depreciation expense, and cost of capital." [Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers (CC Docket No. 01-338); Implementation of the Local Competition Provisions of the Telecommunications Act of 1996 (CC Docket No. 96-989); Deployment of Wireline Services Offering Advanced Telecommunications Capability (CC Docket No. 98-147)*, FCC No. 03-36, (rel. Aug. 21, 2003)**Error! Bookmark not defined.Error! Bookmark not defined.**, ¶ 682 (hereinafter, "*Triennial Review Order*").] Therefore, the TELRIC methodology requires that "the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element shall be included in the forward-looking direct cost of that element." [FCC 96-325, *First Report and Order*, in CC Docket No. 96-98, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, , 11 FCC Rcd 15499, 15813 ¶ 690 (1996) (hereinafter, "*Local Competition Order*").]

The overall cost of capital is a weighted average of the costs of debt and equity, where the weighting is derived from the capital structure.

$$WACC = W_D \cdot k_D + W_E \cdot k_E$$

where:

W_D = weight of debt in the capital structure;

k_D = cost of debt capital;

W_E = weight of equity in the capital structure; and

k_E = cost of equity capital.

This weighted-average cost of capital represents the compensation investors require, on a forward-looking basis, to hold claims on assets deployed to provide unbundled network elements. "*Cost of capital* reflects the rate of return required to attract capital, *i.e.*, the rate of return that investors expect to receive from alternative investments that have the same risk." [*Triennial Review Order*, ¶ 682.]

Q. How have the parties approached the cost of capital inputs for collocation cost studies in this proceeding?

A. BellSouth and Sprint have both proposed to use the cost of capital inputs that the Commission adopted in its most recent UNE pricing case for each company, and all parties apparently agree with those proposals. Verizon, however, has put forward a new and much higher recommended cost of capital through the testimony of its witness Dr. Vander Weide. In the rebuttal testimony of AT&T witness Steven E. Turner, AT&T objected to Verizon's proposal, instead recommending that the cost of capital inputs for Verizon

also be drawn from the Commission's most recent UNE pricing decision for that company. Staff also took issue with Verizon's proposed cost of capital inputs; however, through the testimony of Mr. Lester, Staff proposed an overall cost of capital that lies between Dr. Vander Weide's proposal and the last Commission-authorized cost of capital for Verizon.

Q. Please summarize your testimony in response to Mr. Lester.

A. Although I agree with Mr. Lester that the Commission should not adopt the cost of capital proposed by Verizon witness Dr. Vander Weide, I disagree with Mr. Lester's recommended alternative. Mr. Lester's recommendation shares many of the methodological flaws of Dr. Vander Weide's original analysis. In particular, neither approach correctly implements the FCC's "clarification" that the cost of capital in a TELRIC study should reflect the risks of a market in which there is competition from other facilities-based carriers. [*Triennial Review Order*, ¶ 682.]

Specifically, I disagree with Mr. Lester's proposed cost of equity. Although his recommendation is lower than Dr. Vander Weide's, it still exceeds the cost of equity that would result from the methodology that the FCC's own Wireline Competition Bureau applied in a recent arbitration decision that interpreted the new FCC *Triennial Review Order* cost of capital mandate. [Memorandum Opinion and Order, *In the Matter of In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon*

Virginia Inc. and for Expedited Arbitration (CC Docket No. 00-218); In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252 Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc.(CC Docket No. 00-251), DA 03-2738 (rel. August 29, 2003) (hereinafter "*Virginia Arbitration Order*").]

I also disagree with Mr. Lester's proposed cost of debt, which is the same as Dr. Vander Weide's recommendation. Both proposals exceed the current cost of debt that would be calculated pursuant to the methodology used in the *Virginia Arbitration Order*. Moreover, neither proposal recognizes that Verizon and other incumbents rely in part on significant amounts of very low cost short-term debt to finance their operations.

I further disagree with Mr. Lester's primary recommendation concerning capital structure, which is only slightly different from Dr. Vander Weide's proposal for a market-based capital structure. Market-based capitalization can fluctuate significantly from day-to-day and does not necessarily provide a good guide to investors' expectations about a firm's long-run capitalization.

I do, however, agree that Mr. Lester's secondary recommendation concerning capital structure is appropriate, for reasons somewhat different from those that he advanced. Mr. Lester's alternative 60% equity/ 40% debt capital structure closely replicates the available information concerning the target capital structure of incumbent local exchange carriers. Target capital

structure is the most appropriate basis for developing a forward-looking cost of capital.

I also agree with Mr. Lester that there is no need for an additional risk premium to account for collocation-specific risks.

Based on the analysis and conclusions described above, I conclude overall that the cost of capital that the Commission adopted in the last Verizon UNE proceeding (9.63%) is more than adequate as an estimate of a TELRIC-based cost of capital. Indeed, as AT&T witness Mr. Turner observed in his rebuttal testimony, if I were making a "blank slate" recommendation to the Commission in this proceeding, I would recommend a cost of capital even lower than the previous adopted cost of capital for Verizon.

II. COST OF EQUITY

Q. What approach did Mr. Lester use to estimate cost of equity?

A. Like Verizon witness Dr. Vander Weide, Mr. Lester used a Discounted Cash Flow ("DCF") method to estimate the cost of equity. [Lester Rebuttal, pp. 3 *et seq.*] A DCF model calculates investors' required rates of return for holding stock under the assumption that today's stock price for a company is equal to the present value of the cash outlays accruing to that company's stockholders. These cash outlays include both dividend payments and capital appreciation in the value of shares held. According to the DCF logic, investors implicitly require high returns from stocks with large current

dividend yields (the dividend paid to shareholders divided by the stock price) and high dividend growth rates.

Q. Is the DCF method that Mr. Lester (and Dr. Vander Weide) use to estimate cost of equity reasonable?

A. No. Like Dr. Vander Weide, Mr. Lester has used a form of the DCF model that employs particularly unrealistic assumptions under current financial market conditions.

The DCF model requires strong assumptions about the future dividends and growth rate of the firms included in the study group. Strictly speaking, a researcher employing the DCF model must make guesses about the cash flows accruing to each of these firms' shareholders that extend into the *indefinite* future.

Both Mr. Lester and Dr. Vander Weide rely on what is called the constant-growth or one-stage DCF model (one-stage meaning that the analysis assumes that there is a single, constant growth rate in perpetuity) to estimate the cost of equity. A one-stage DCF analysis of cost of equity adopts the unrealistic assumption that a company can continue to grow forever at a rate different from the economy—*i.e.*, the current dividend yield on the company's stock and current forecast of the company's growth will continue to be valid forever.

As a logical matter, a company cannot forever grow at a rate different from the economy unless the company either shrinks to an infinitesimally small and insignificant fraction of the economy or it eventually takes over the

entire economy. In its recent *Virginia Arbitration Order*, the FCC Wireline Competition Bureau recognized this flaw in the constant-growth DCF model, which Dr. Vander Weide presented on behalf of Verizon Virginia, Inc., in that arbitration. The Bureau rejected the constant-growth DCF unequivocally:

> If the growth rate used in the [constant growth DCF] model is substantially inconsistent with this assumption [*i.e.*, the long-term growth rate of the economy as a whole], however, the finance literature concludes without exception that the model is unlikely to produce an accurate cost of equity capital estimate. Verizon's use of the constant growth DCF model to estimate the cost of growth for its S&P proxy group stretches the reasonable limits of its use. .... As AT&T/WorldCom demonstrate, however, no company can grow forever at a greater rate than the economy as a whole, and therefore we conclude that Verizon's assumption is not reasonable. [*Virginia Arbitration Order*, ¶ 73.]

Q. Does Mr. Lester's assumed growth rate exceed long-term expected economic growth?

A. Yes. A particularly useful public forecast of long-term expected economic growth over the next 10 years appears in the Philadelphia Federal Reserve Bank's *Survey of Professional Forecasters*. This reputable government source makes its *Survey* results available, without charge, over the Internet. The Bank's website describes the *Survey* as follows:

The *Survey of Professional Forecasters* is the oldest quarterly survey of macroeconomic forecasts in the United States. The survey began in 1968 and was conducted by the American Statistical Association and the National Bureau of Economic Research. The Federal Reserve Bank of Philadelphia took over the survey in 1990.

[http://www.phil.frb.org/econ/spf/]

Although the *Survey* is published quarterly, long-term (10-year) forecasts appear only in the first quarterly release each year. Therefore, the most recent 10-year forecast for the average annual S&P 500 return appears in the first-quarter 2003 *Survey*, which was released on February 24, 2003. A copy of this forecast is included in Exhibit TLM-2. 37 professional forecasters participated in that *Survey*; 34 of them provided a ten-year forecast of the real Gross Domestic Product ("GDP") growth rate. The average (mean) annual forecasted real GDP growth rate was 3.206%, as shown on the last page of Exhibit TLM-2.

To convert this figure into a nominal growth rate, which is the relevant growth rate for comparison to the growth rates that Mr. Lester and Dr. Vander Weide used in their constant-growth DCF growth analyses, one must add back expected inflation. The last page of Exhibit TLM-2 also reports the average (mean) annual forecasted Consumer Price Index ("CPI") inflation rate, which is the form of inflation projected over the next ten years by 34 forecasters. Adding this average annual inflation rate of 2.474% to the 3.206% average

annual real GDP growth forecast produces a forecasted average annual nominal economic growth rate of 5.68%.

This 5.68% long-term annual average economic growth rate forecast is far below the annual average growth rate of 9.72% used in Mr. Lester's DCF analysis, which I have calculated from the Staff workpapers underlying Mr. Lester's Exhibit PL-1. Hence, Mr. Lester's DCF analysis runs afoul of the fundamental financial principles that led the Wireline Competition Bureau to reject Dr. Vander Weide's similar constant-growth DCF analysis in the Virginia arbitration.

Given Mr. Lester's unrealistic assumption that the firms in his sample will grow forever at a rate far higher than the expected growth for the economy as a whole, it is no wonder that Mr. Lester's DCF produces an estimated cost of equity (12.64%, as reported on page 1 of Exhibit PL-1) that far exceeds projected long-term returns for the average stock in the S&P 500. The Philadelphia Federal Reserve's *Survey of Professional Forecasters* reports an average (mean) annual expected return for the S&P 500 of only 7.47%. [*See* Exhibit TLM-2, last page.] This projection of overall stock market returns provides an important benchmark for assessing the reasonableness of the estimates of cost of equity in this proceeding. Mr. Lester has provided no reason to believe that the investor-required return on equity for a telecommunications carrier subject to facilities-based competition exceeds the average return on the market. In fact, as I will explain in more detail in subsequent answers, Mr. Lester's overall theory for selecting a proxy

group of companies for his analysis is consistent with the notion that the return granted for Verizon in this proceeding should roughly equal the return for the market as a whole.

Q. Are there other significant flaws in Mr. Lester's DCF analysis?

A. Yes. The group of firms included in his DCF analysis is inappropriate in two respects: (1) the firms are not linked in any reasonable fashion to the risks of a telecommunications carrier subject to facilities-based competition; and (2) Mr. Lester's method of excluding firms from his sample creates an upward bias in his analysis.

Q. How did Mr. Lester select his proxy group of firms?

A. Mr. Lester chose to analyze the returns for a proxy group of 657 firms covered by the *Value Line Investment Survey*, which he selected by restricting his sample to firms that had positive projected dividend and earnings growth over the next five years and then throwing out what he deemed to be outliers on both the low and high ends of the DCF results. [Lester Rebuttal, pp. 4-5.] He deliberately aimed to select a group of firms even larger and more inclusive than the S&P Industrials analyzed by Dr. Vander Weide. [Lester Rebuttal, p. 4.]

Q. Why do you say that the firms in Mr. Lester's proxy group are not reasonably linked to the risks of a telecommunications carrier facing facilities-based competition?

A. Visual inspection of Exhibit PL-1 reveals the enormous diversity of the firms included in Mr. Lester's proxy group. The range of firms includes pharmaceutical companies (*e.g.*, GlaxoSmithKline ADR); ice cream manufacturers (*e.g.*, Dreyer's Grand); retail outlets (*e.g.*, The Gap, Inc.); newspaper publishers (*e.g.*, The New York Times); and foreign financial institutions (*e.g.*, Bank of Nova Scotia).

Mr. Lester makes no attempt to link the risks that these diverse firms face to the risks of a telecommunications carrier subject to facilities-based competition other than to argue that the firms are a broad proxy group of "competitive companies." [Lester Rebuttal, p. 4.] That rationale is not sufficient to justify basing the cost of equity for a hypothetical efficient collocation provider on the simple average cost of equity (as calculated using Mr. Lester's constant-growth DCF model) for this highly diversified group of companies.

If the mere fact of being a "competitive company" were determinative of the cost of equity, one would expect the results for Mr. Lester's 657 firms to cluster tightly around an average "competitive firm" cost of equity. They do not. The estimated cost of equity for these firms reported in Exhibit PL-1 is all over the map, ranging from a low of 7.91% to a high of 26.44%.

The FCC's Wireline Competition Bureau took exception to Verizon's use of a similarly diverse group of companies, the S&P 500, in the cost of capital study put forward in the Virginia arbitration. According to the Bureau,

> The businesses of most of Verizon's S&P 500 based proxy group of companies have no obvious similarity to the provision of local exchange services, and Verizon did not describe any. Consequently, there is no basis on which to conclude that this proxy group best represents the risks that Verizon would face it if faced facilities-based competition.
> [*Virginia Arbitration Order*, ¶ 90.]

The Commission should reject Mr. Lester's 657-firm proxy group on the same basis.

Indeed, Mr. Lester's group is even less appropriate than the S&P 500 as a whole. The S&P 500 at least includes the major Regional Bell Operating Companies ("RBOCs"), Sprint and AT&T. Mr. Lester's 657-firm proxy group, by contrast, excludes the very firm whose cost of equity he is attempting to estimate, Verizon, as well as the closely comparable firm SBC Communications. Significantly, Mr. Lester calculates a cost of equity of only 8.36% for BellSouth Corp., the only RBOC included in his proxy group. [Exhibit PL-1, p. 1.] His workpapers also show (unused) calculations of the cost of equity of 6.58% for Verizon and 6.60% for SBC Communications. The inclusion of these obviously relevant data points would have lowered Mr. Lester's average DCF result.

Q. Why do you say that Mr. Lester's method for excluding firms from his sample introduced an upward bias into his results?

A. My response to the previous question provided an excellent illustration of this point. Mr. Lester excluded results for Verizon and SBC (along with many other firms for which he calculated a low cost of equity), apparently because the estimated cost of equity for these firms fell below the forecasted BBB bond return. There were 75 such firms excluded from the analysis. On the other hand, his rule for excluding results at the high end of his range of calculated equity costs was to eliminate firms more than three standard deviations from the mean. There were only 11 such firms excluded. [Lester Rebuttal, pp. 4-5.] The disparity between the number of firms eliminated on the low end (75) versus the number of firms eliminated on the high end (11) immediately suggests that the "outlier" elimination systematically increased the average result. Mr. Lester's workpapers bear out this surmise, showing a 12.16% average return for the group before he eliminated his supposed "outliers."

This increase lacked a solid and symmetric rationale. Although I agree with Mr. Lester that the cost of equity generally does not fall below the cost of debt [Lester Rebuttal, p. 4], use of the projected return for the BBB bond (the riskiest category of investment-grade bonds) is too high a cutoff for less risky companies with higher bond ratings. Notably, both Verizon and SBC have much better than BBB bond ratings. In fact, Mr. Lester's lower-bound cutoff is much more stringent than his upper-bound cutoff. His workpapers show that the standard deviation of the estimated cost of equity was 4.45%, not surprising given the large variability shown in Exhibit PL-1, even after the

elimination of "outliers." Had Mr. Lester applied the same "three standard deviations from the mean" cutoff for both the upper and lower bounds of his analysis, he literally could not have eliminated *any* results at the low end. Three standard deviations equals 13.36%, which, when subtracted from the mean result for the entire sample (12.16%), would produce a negative cost of equity.

Mr. Lester's other rule for exclusion ensured that there would not be any firms in the analysis with an estimated negative cost of equity. Specifically, he only included dividend-paying firms in the *Value Line* database that had both positive projected dividend growth and positive projected earnings growth. [Lester Rebuttal, p. 3.] This rule further increases the overall estimate of the cost of equity relative to the estimate from an unbiased sample of what Mr. Lester deemed to be "competitive companies."

Taken in combination, therefore, these rules for excluding companies from the *Value Line* database introduced a systematic upward bias in Mr. Lester's cost of equity calculation.

Q. Are the flaws that you have described above the only aspects of Mr. Lester's DCF analysis with which you disagree?

A. No. There are other aspects of his analysis (specifically, the use of the quarterly form of the DCF model and the inclusion of a flotation cost premium) with which I disagree. But, these flaws pale in comparison to the overarching errors that I have discussed above. Similar errors, and a general concern about the ability to estimate appropriate growth rates for use in the

DCF model, led the FCC's Wireline Competition Bureau to give no weight whatsoever to the parties' DCF results in its *Virginia Arbitration Order*, and to give exclusive weight to a Capital Asset Pricing Model ("CAPM") analysis. [*Virginia Arbitration Order*, ¶ 90.]

Q. What are the basic assumptions of the CAPM?

A. The CAPM assumes investors require high returns for stocks that are sensitive to fluctuations in the overall stock market. The most common measure of a stock's market sensitivity is its beta—a number that equals the covariance of a stock's return with the market return divided by the total variance of the stock's return. (Covariance refers to the tendency of two variables to move together, independent of where the two variables happen to be centered—that is, their average absolute value. In this case, the two variables are the return on the stock of a particular company and the return on the market as a whole.)

Specifically, the CAPM requires three inputs to estimate the investor-required rate of return for a given stock: a stock's sensitivity to the market, the market risk premium and the riskless rate of return. Thus, the CAPM estimate of the investor-required return on a stock can be expressed as:

$$k_E = r_f + (\beta \cdot ERP)$$

where:

k_E = the cost of equity for the company;

r_f = the expected return of the riskless asset;

β = the beta of the company's stock; and

ERP = the expected equity risk premium.

Q. How did the Wireline Competition Bureau apply the CAPM in its *Virginia Arbitration Order*?

A. The Bureau averaged two different CAPM calculations, one using the 30-day Treasury bill rate as the risk-free interest rate and the other using the 20-year Treasury bond as the risk-free interest rate. [*Virginia Arbitration Order*, ¶ 80.] In each case, the Bureau applied the pertinent historical equity risk premium based on results published by Ibbotson Associates. [*Id.*, ¶ 83.] In both cases, the Bureau used a beta of 1, the beta for the market as a whole, which it found to be "a useful benchmark for the risk faced on average by established companies in competitive markets." [*Id.*, ¶ 90.]

Q. How does the cost of equity using the Wireline Competition Bureau's CAPM approach compare to the cost of equity estimates proposed in this proceeding?

A. Applying the CAPM approach adopted in the *Virginia Arbitration Order* to current data, I estimate a cost of equity of 10.70%. Exhibit TLM-3 shows the details of this calculation and provides the supporting documents for the risk-free interest rate and equity risk premium. This result demonstrates the unreasonableness of Mr. Lester's proposed 12.64% cost of equity, and even greater unreasonableness of Dr. Vander Weide's recommended 14.13% cost of equity.

Q. Is the CAPM estimate that you have produced using the most literal application of the methodology employed in the *Virginia Arbitration*

Order your best estimate of the forward-looking cost of equity for a telecommunications carrier subject to facilities-based competition?

A. No. Literally applying the Bureau's CAPM methodology required me to use the estimated equity risk premiums that Ibbotson Associates produces using historical data going back to 1926. There is a substantial body of literature, which was not referenced or considered in the *Virginia Arbitration Order*, showing that such historical averages no longer provide an accurate estimate of the equity risk premium that investors demand on a forward-looking basis.

For example, Fama and French argue that estimates of the equity premium based on historical returns are biased upwards because the expected premium has declined over the past 50 years. [Eugene Fama and Kenneth French, 2002, "The Equity Premium," *Journal of Finance* **57**(2), 637-59.] When investors' discount rates decline unexpectedly, realized stock returns will exceed expected returns, thereby biasing historical estimates of the equity premium. The Fama and French models published in 2002 suggest the current equity premium is around 4% relative to the 6-month LIBOR interest rate.

Another prominent study by Claus and Thomas, published in 2001, applies a DCF model to stock returns to determine investors' required rates of return. [James Claus and Jacob Thomas, 2001, "Equity Premia as Low as Three Percent? Evidence from Analysts' Earnings Forecasts for Domestic and International Stock Markets," *Journal of Finance* **56**(5), 1629-1666.] Similar to a standard DCF analysis, Claus and Thomas use information from analyst forecasts to calculate firms' expected growth rates, enabling the

authors to infer the equity premium from observed stock prices. Consistent with Fama and French, they estimate that the current equity premium is much lower than historical returns would suggest—around 3% relative to the 10-year Treasury bond rate.

A recent study by Gebhardt, Lee and Swaminathan confirms the findings of Claus and Thomas using a different version of the DCF model called the residual-income valuation model. [William Gebhardt, Charles Lee and Bhaskaram Swaminathan, 2001, "Toward an Implied Cost of Capital," *Journal of Accounting Research* **39**, 135-76.] Their estimates of the equity premium are just under 3%, also relative to the 10-year Treasury bond rate.

Finally, as I noted above, the estimates of expected equity returns from the *Survey of Professional Forecasters* conducted by the Federal Reserve Bank of Philadelphia average 7.47%. [Exhibit TLM-2, last page.] This average forecast implies an equity premium between 3% and 4%, based on current bond returns.

Although there is a growing consensus among academics and other experts that the equity premium is slightly below 4%, many practitioners still use historical equity premium data from Ibbotson Associates. Measured over the horizon 1926-2002, the Ibbotson Associates historical premium equals approximately 7% for the "long-horizon" version and 8.4% for the "short-horizon" version used in the Wireline Competition Bureau's CAPM calculations [*see* Exhibit TLM-3]—significantly higher numbers than the forward-looking figure of around 4% advocated by most experts.

Significantly, Roger Ibbotson, President of Ibbotson Associates and Professor of Finance at Yale, has expressed the opinion that the historical equity premium estimates no longer reflect investors' expectations and that the forward-looking risk premium is around 4%. [Roger G. Ibbotson, "Building the Future from the Past," *TIAA-CREF Investment Forum: Idea Exchange*, June 2002, p. 12.] Based on this risk premium, he estimates the long-run return for the stock market at something over 9 percent. [*Id.*]

Moreover, in the same publication, respected Harvard finance professor John W. Campbell echoed Dr. Ibbotson's belief that investors' expectations going forward are much different from the historical averages. Professor Campbell, however, anticipates a shakeout period in which actual equity returns are somewhat *below* debt returns, leading to a long-term expected equity risk premium of only about 1-1.5%. This corresponds to a compound average real (*i.e.*, holding the value of the currency constant) return for stocks in general of 5.0-5.5%. [John Y. Campbell, "Stock Returns for a New Century," *TIAA-CREF Investment Forum: Idea Exchange*, June 2002, p. 12.] Adding the roughly 2.5% average annual inflation rate forecasted over the next ten years, as reported in the *Survey of Professional Forecasters* [Exhibit TLM-2], would convert this figure into an average nominal return of 7.5%-8.0%, which comports closely with the 10-year S&P 500 return projected in the same forecast.

Therefore, my own best estimate of the cost of equity would incorporate these forward-looking estimates of the equity risk premium, while

giving some weight to the results of a CAPM calculation using the historical risk premium estimates from Ibbotson Associates. Specifically, I would calculate an average of the CAPM results based on the four prominent recent sources described above (not including the recent opinions expressed by Professors Ibbotson and Campbell), and then average this "forward-looking" CAPM result with the result I described above based on applying a literal interpretation of the *Virginia Arbitration Order*, using the Ibbotson Associates historical risk premium estimates.

Q. What result would you obtain using your "best estimate" approach?

A. My "best estimate" approach produces an estimated cost of equity of 8.77%, using current interest rates. (Exhibit TLM-4 provides the calculations supporting this estimate.) I note that this estimate falls between the long-term forecasts of Professors Ibbotson and Campbell, which I did not incorporate in my analysis. Their independent forecasts provide corroboration of the reasonableness of my "best estimate" approach.

III. COST OF DEBT

Q. What cost of debt did Mr. Lester use in his cost of capital calculations?

A. Mr. Lester accepted Verizon Florida witness Dr. Vander Weide's recommended 7.54% cost of debt. [Lester Rebuttal, p. 8.] Dr. Vander Weide's recommendation is based on the average yield-to-maturity on Moody's A-rated industrial bonds for April 2002. [Vander Weide Direct at 55.]

Q. Is it appropriate to use a debt cost of 7.54% in cost of capital estimates for this proceeding?

A. No. The Lester/Vander Weide recommended debt cost is inappropriate for at least three reasons.

First, it is too outdated to use in current cost of capital estimates. Long-term debt costs have decreased since Dr. Vander Weide's analysis, on which Mr. Lester relies. In fact, even Verizon Florida's embedded debt costs are lower. Verizon provided a Verizon-Florida specific embedded yield-to-maturity as of March 31, 2003, which was 6.92%. [Verizon Florida Response to AT&T's 2nd Set of Interrogatories, Request No. 4.] Given the downward trend in interest rates, embedded debt costs should exceed forward-looking yields-to-maturity; therefore, Verizon's embedded debt cost illustrates that the 7.54% figure is excessive.

Second, it represents a generic debt cost for A-rated debt, rather than a debt cost specific to telecommunications carriers such as Verizon. The FCC Wireline Competition Bureau's recent order in the Virginia arbitration between AT&T Communications of Virginia, Inc. and WorldCom Inc. and Verizon Virginia Inc. endorses the use of current yield-to-maturity for ILEC-specific debt, rather than generic debt of a particular bond rating. [*Virginia Arbitration Order*, ¶ 67.]

The yield-to-maturity data available as of September 22, 2003, show that the yield-to-maturity for the Verizon companies' publicly traded bonds ranges from 4.676% to 6.160%, depending largely on the maturity date of the

bond (bonds with longer maturities have higher yields). (The data reviewed are provided in Exhibit TLM-4.) The weighted-average of these forward-looking yields-to-maturity is 4.97% (this calculation is also provided in Exhibit TLM-4), which provides a better estimate of the forward-looking long-term debt cost for a carrier such as Verizon.

Third, Dr Vander Weide's analysis of debt costs inappropriately ignored short-term debt. By accepting Dr. Vander Weide's figure, Mr. Lester likewise failed to take into account short-term debt, even though Mr. Lester did include short-term in his proposed capital structure calculation. Short-term debt is *very* inexpensive. Verizon's response to AT&T's Second Interrogatories, No. 5, indicates that the company's cost of short-term debt was only 1.285% as of March 31, 2003. The huge discrepancy between this figure and the yield-to-maturity for publicly traded long-term debt makes use of the long-term yield-to-maturity a conservatively high statement of debt cost.

IV. CAPITAL STRUCTURE

Q. What approach does Mr. Lester support for estimating the overall capital structure, or mix of debt and equity financing?

A. Mr. Lester supports a "market value capital structure" for use in a weighted cost of capital calculation. [Lester Rebuttal, p. 6.] A market-based analysis of capital structure estimates the equity share of total capital by looking at the

total market value of equity divided by the sum of the market value of equity plus the value of debt.

The estimation of total debt does not usually vary between a market- and a book-based analysis of capital structure. In practice, most economists estimate the value of debt in the capital structure by looking at its book value, as Mr. Lester has done [Lester Rebuttal, p. 7], because so little debt is publicly traded.

Q. Is a market-based capitalization appropriate for estimating the overall capital structure of a hypothetical efficient carrier providing UNEs in Verizon Florida's service territory?

A. No. The relevant capital structure for determining the cost of capital at which investors will provide an efficient amount of funds for the firm's investment projects is the firm's *target* capital structure, not its market-based capital structure. A market-based valuation fluctuates too much to represent investors' long-term expectations. Ibbotson Associates states: "Ideally, a firm's target or optimal capital structure should be used in weighting the cost of equity and cost of debt." [Ibbotson Associates, *SBBI: Valuation Edition, 2003 Yearbook*, at 14 (hereinafter, "Ibbotson *2003 Yearbook*").] Ibbotson recommends market value weights only in the absence of target capital structure information.

Market capitalization can change radically in a matter of days or weeks as stock prices fluctuate, whereas both book capitalization and target capital structures change much more slowly. By the time of its decision in

this proceeding, the Commission could easily find that the average market capitalization for the companies in my comparison group is far different from any value in the record of this proceeding, which would result in drastic shifts in the final adopted cost of capital. These dramatic shifts would not necessarily have anything to do with investors' expectations about the long-run or optimal capital structure for a hypothetical efficient carrier that provides collocation.

For this very reason, the District of Columbia Public Service Commission found target capital structures to be preferable to current market capital structures. "Target capital structures," the DC PSC correctly found, "are based more on careful management consideration of risks than on current market prices, which can fluctuate for reasons not specifically related to the entity in question." [DC PSC Order No. 12610, ¶ 161.] (The findings of the DC PSC are particularly pertinent because that commission chose to base its adopted cost of capital on risk assumptions that closely parallel the requirements subsequently "clarified" in the FCC's *Triennial Review Order*. [*Id.*, ¶¶ 182, 183, 185, 186, and 189.])

Rational investors may well expect that, in the long run, market equity will tend to move toward book equity. That expectation would be consistent with the findings of respected researchers in economics and finance. [Eugene F. Fama and Kenneth R. French, 1992, "The Cross-Section of Expected Equity Returns," *Journal of Finance* **47**, at 441; Josef Lakonishok, Andrei

Shleifer, and Robert W. Vishny, 1994, "Contrarian Investment, Extrapolation and Risk," *Journal of Finance* **49**, 1541-78.]

For all of these reasons, it is far better to attempt to identify a target capital structure than to rely solely on current market capitalization. By definition, in an efficient market, a firm's capital structure will adjust toward its target structure in the long-run.

Q. How can one identify the "target" capital structure of an efficient carrier?

A. Unfortunately, when one is dealing with the capital structure of a hypothetical efficient firm, one cannot simply "ask" the hypothetical firm to identify its target capital structure. Moreover, few firms provide public information about their target capital structures, so it can be very difficult to "average" the target capital structures of firms in a comparable group. For example, Verizon Florida claimed in response to discovery by AT&T that neither it nor its parent has a target structure. [Verizon Florida Responses to AT&T's Second Interrogatories, Nos. 10 and 11.]

However, both Sprint and BellSouth provided specific figures in response to AT&T requests regarding their target capitalization. Sprint indicated that its target capital structure is 60% equity and 40% debt (while denying its applicability to the cost of capital determination). [Sprint Response to AT&T's Second Interrogatories, No. 13.] BellSouth placed its target structure at between 65% equity and 35% debt and 55% equity and 45% debt. [BellSouth Response to AT&T's Sixth Interrogatories, No. 48.] The

mid-point of BellSouth's range is a capital structure of 60% equity and 40% debt.

Q. Has Mr. Lester offered an alternative to his market value capital structure?

A. Yes. Although Mr. Lester derived a market-based capital structure, he recommends a "conservative approach." He acknowledges that "market values for equity vary considerably and can result in very high levels of equity in the capital structure" [Lester Rebuttal, p. 7] and notes that "ILECs evidently use significant amounts of debt to finance their networks" [*Id.*]. Mr. Lester also points out that "[m]arket value structures have not been widely employed in UNE proceedings." [*Id.*] Based on these observations, should the Commission reject a market value capital structure, Mr. Lester recommends an alternative capital structure of 60% equity and 40% debt. He notes that this would be consistent with this Commission's previous decisions regarding the appropriate capital structure for UNEs. [*Id.*, pp. 7-8.]

Q. Is a capital structure of 60% equity and 40% debt reasonable?

A. Yes. I find Mr. Lester's alternative to be more reasonable than his market value capital structure of 71% equity and 29% debt. Based on the target capital structure information provided by Sprint and BellSouth, as well as Commission precedent on capital structure, I recommend that the Commission use a capital structure of 60% equity and 40% debt in this proceeding.

Q. Even if the Commission were to adopt Mr. Lester's market value capital structure, would the forward-looking cost of capital be as high as Mr. Lester has calculated?

A. No. As I have explained, both the equity and debt component costs should be lower than Mr. Lester has proposed. Therefore, even using the unreasonably high 71% equity ratio, the forward-looking cost of capital would not be as high as Mr. Lester calculates. Based on a 10.70% cost of equity and a 4.97% average cost of debt, the weighted-average cost of capital would be only 9.04% (applying the most literal interpretation of the *Virginia Arbitration Order*). Substituting my "best estimate" of the cost of equity (8.77%) for the 10.70% "literal" interpretation of the *Virginia Arbitration Order* reduces the weighted-average cost of capital to 7.67%—again, still using Mr. Lester's market-value capital structure.

In fact, adjusting only the cost of equity to 10.70% (which, again, is the most literal possible interpretation of the *Virginia Arbitration Order*) and retaining the (outdated) cost of debt and market capital structure that Mr. Lester recommends would produce a weighted-average cost of capital of 9.78%, which is trivially different from the 9.63% cost of capital adopted in the last Verizon UNE decision. Exhibit TLM-3 shows the derivation of all of these figures, each of which independently supports a Commission decision to apply the 9.63% cost of capital adopted in the last Verizon UNE decision.

V. RISK PREMIUM

Q. Mr. Lester contends that Dr. Vander Weide's proposed required risk premium is unnecessary. [Lester Rebuttal, p. 11.] Do you agree?

A. Yes. Mr. Lester concludes that new technology has little effect on collocation. [Lester Rebuttal, pp. 9-10.] In addition, he finds the risk of a competitor canceling its collocation lease to be comparable to the risk faced by companies in competitive markets of a customer not buying a product or service. [*Id.* at 11.] As such, this risk is already captured by a cost of capital for companies in competitive markets. [*Id.*] Finally, Mr. Lester observes that "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." [*Id.*]

I agree with Mr. Lester's reasoning and his conclusion.

Q. Are the risks associated with providing collocation somehow unique within the competitive market?

A. No. Much of the capital cost associated with collocation is for buildings, power, *etc.*, which are shared with other UNEs and therefore constitute no unique risk for collocation. Indeed, if anything, the risk for collocation buildings is much lower than the risk associated with other UNEs and the risk for competitive firms in general because, as Mr. Lester points out [*Id.*, p. 10], Verizon need only rent spare space and is not required to add building space to meet additional demand. Moreover, there are no long-term contracts for

any UNE, so Dr. Vander Weide's attempt to distinguish collocation risk from the risk associated with UNEs in general is misguided.

VI. CONCLUSION AND RECOMMENDATIONS

Q. Please summarize your conclusions.

A. I conclude that the Commission should reject Mr. Lester's recommended cost of capital and instead use the most recent Commission-approved UNE cost of capital inputs for Verizon to calculate collocation costs, as recommended in the rebuttal testimony of AT&T witness Mr. Turner. The 9.63% weighted-average cost of capital is a conservatively high estimate of the current forward-looking cost of capital for a telecommunications carrier subject to facilities-based competition. Indeed, if I were to recalculate the cost of capital on a blank slate, I would recommend a much lower figure, such as the 7.25% weighted-average cost of capital that results from applying my best estimates of the forward-looking cost of equity and debt (8.77% and 4.97%, respectively) to the 60% equity and 40% debt "target" capital structures supported by the BellSouth and Sprint responses to AT&T's interrogatories. [*See* Exhibit TLM-3 for the derivation of the 7.25% figure.]

Q. Does that conclude your testimony at this time?

A. Yes, it does.

CHAIRMAN BAEZ: All right. Next, we have some staff witnesses, Mr. Teitzman.

MR. TEITZMAN: Staff would move that the rebuttal testimony of Pat Lee consisting of 23 (sic) pages filed April 18, 2003 be entered into the record as though read.

CHAIRMAN BAEZ: Show the rebuttal testimony of Pat Lee moved into the record as though read. And are there any exhibits, Mr. Teitzman?

MR. TEITZMAN: There are five exhibits that we'd request to be entered into the record as a composite hearing exhibit entitled, "PSL-1, PSL-2, 3, 4, and 5."

CHAIRMAN BAEZ: Show exhibits identified as PSL-1 through 5 marked as Composite Exhibit 32 and moved into the record without objection.

(Exhibit 32 marked for identification and admitted into the record.)

REBUTTAL TESTIMONY OF PATRICIA S. LEE

Q. Please state your name and address.

A. My name is Patricia S. Lee. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399-0850.

Q. By whom are you employed and in what capacity?

A. I am employed by the Florida Public Service Commission as a Senior Analyst - PSC in the Division of Economic Regulation.

Q. Please provide a brief description of your educational background and business experience.

A. I graduated from Appalachian State University in Boone, North Carolina in December 1970, receiving a Bachelor's degree in mathematics. I was employed as a high school mathematics teacher from 1971-1974, when I began working in the area of statistical analysis for the State of Florida. I joined the Public Service Commission staff in 1978. While my position has changed over the years, my areas of primary focus are depreciation and capital recovery. I have also reviewed and analyzed cost studies for the purpose of determining unbundled network element prices and universal service cost levels. In this regard, I have been responsible for depreciation issues and other issues such as determining the appropriate cost model inputs for copper and fiber material and installation costs, loading factors, and interoffice transport. In 1999, I gained the professional status of Certified Depreciation Professional (CDP) by the Society of Depreciation Professionals (SDP).

Q. What is the SDP?

A. SDP is an international organization whose goals include the promotion

of professional development within the depreciation field, the collection and exchange of information about depreciation engineering and analysis, and the provision of programs and publications concerning depreciation. The CDP distinction requires a written examination where the depreciation professional is tested on his or her knowledge of depreciation theory and application.

Q. What are your duties as a Senior Analyst - PSC?

A. I direct the analysis of depreciation rates and the capital recovery positions of Florida regulated utilities and the valuation of assets in a competitive market. In this capacity, I investigate, analyze, and evaluate valuation and depreciation methods and concepts. The determination of appropriate depreciation lives and salvage values requires an understanding of the plans, needs, and pressures facing an individual company. It also requires a knowledge of the various types of plant under study or review and the various factors impacting the depreciation parameters, such as competition and technological advancements.

I also confer with company officials, other state and federal agency personnel, and consulting firms on capital recovery matters in both the regulated and deregulated environments. Additionally, on behalf of the Commission, I have been a faculty member of the National Association of Regulatory Utility Commissioners (NARUC) Annual Regulatory Studies Program and also for the Society of Depreciation Professionals. I am also currently a member of the NARUC Staff Subcommittee on Depreciation and Technology. In this regard, I co-authored the NARUC 1996 *Public Utility Depreciation Practices* manual and three NARUC papers that addressed the impact of depreciation on infrastructure development, economic depreciation, and

stranded investment. Two of these papers were published in the 1996-1997 and 1998 SDP Journals.

Q. Have you previously testified before the Commission?

A. Yes, I have. I have proffered testimony in telecommunications, electric, and gas cases regarding depreciation-related issues.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to the testimony of Verizon FL witness Sovereign regarding the depreciation lives and salvage value inputs to be used in the Total Element Long-Run Incremental Cost (TELRIC) study presented in this proceeding to develop recurring costs for collocation. I address the adequacy of the support witness Sovereign offers in his testimony and provide alternatives for the Commission to consider.

Q. Do you have any exhibits accompanying your testimony?

A. Yes. Attached to my testimony are Exhibits PSL-1 through PSL-5.

Q. Please comment on the need for the Commission to address the life and salvage values for Verizon's depreciable accounts as shown on witness Sovereign's Exhibit AES-1.

A. According to Exhibit BKE-1 of Verizon witness Ellis' testimony, page 231, only data for Buildings, Digital Switching, Circuit Equipment, Underground Cable - Metallic, Underground Cable - Fiber, and Conduit Systems are used to calculate the annual cost factors (ACFs) found in Verizon's collocation cost study. At this time, I am awaiting discovery responses to confirm that these are the only accounts involved. I believe that the Commission need only address the depreciation inputs for the accounts germane to the cost study at hand. For this reason, my testimony will address the

accounts for which I am assured at this point affect collocation recurring rates.

Q. What support does witness Sovereign offer for his recommended depreciation life inputs?

A. Witness Sovereign supports his recommended depreciation life inputs by the following:

1. They are the same lives that Verizon FL uses for financial accounting purposes.

2. They are in line with the lives reported by other competitors in their annual reports to stockholders.

3. They are in line with the lives used by cable television companies.

4. They are in line with the lives recommended by Technology Futures, Inc. (TFI).

Q. Has witness Sovereign provided any data, analyses, or study to support his recommended life and salvage inputs?

A. No, he has not. The only support witness Sovereign has provided is that outlined above. In this respect, I believe Verizon FL's life and salvage value inputs are not adequately supported.

I. ECONOMIC LIVES VS. FINANCIAL REPORTING LIVES

Q. Witness Sovereign testifies that Verizon FL continues to advocate the use of economic lives (also known as financial reporting lives). Do you agree that economic lives and financial reporting lives are one and the same?

A. I believe that "economic lives", "financial reporting lives", and "useful lives" are terms that are often times used synonymously. However, the underlying assumptions used in the development of these lives can often be different.

Q. Are Verizon FL's recommended depreciation life inputs consistent with Generally Accepted Accounting Principles (GAAP)?

A. I am not an accountant, although as a lay person and as a depreciation expert, I would say that the answer is yes. My reading of GAAP principles is that GAAP provides very general guidelines and only requires that the cost be spread in a consistent and rational manner over the expected useful life of the property. The term "useful life" is one which can mean a number of different things and be used in different ways.

Q. Please define useful life.

A. Useful life is a broad term that generally represents the period of time a group of assets will be useful, thereby providing service. The term is often used synonymously with terms such as service life, projection life, realized life, tax life, remaining life, or **economic life**.

Q. Is useful life different from physical life?

A. Yes. Physical life represents the entire period that the given group of assets will physically be in service. Physical life is usually longer than useful life. For example, manual cord boards, if you can find any these days, are still capable of providing service. Therefore, the physical life continues. Technology and economics caused this equipment to be retired, not the physical characteristics.

Q. Please comment on witness Sovereign's support that his recommended life

inputs are the same as the depreciation lives Verizon uses for financial reporting.

A. I don't think that the fact that witness Sovereign's recommended depreciation life inputs are the same as those that Verizon FL uses for financial reporting purposes lends support to the appropriateness of their use in determining collocation rates. Referring to the FCC's Tenth Report and Order on Universal Service, paragraph 429 states:

> ... the depreciation values used in the LECs' financial reporting are intended to protect investors by preferring a conservative understatement of net assets, partially achieving this goal by erring on the side of over-depreciation. These preferences are not compatible with the accurate estimation of the cost of providing services that are supported by the federal high-cost mechanism. We, therefore, decline to adopt the proposed life values used by LECs for financial reporting purposes.[1]

While universal service is different from unbundled network elements and collocation, the reasoning for not using depreciation input values that are used for financial reporting purposes is the same.

Moreover, as noted in *Depreciation Systems*, a company's income depends on the amount of depreciation charged against the revenues in any period. For this reason, many methods of arriving at depreciation expense have been developed over the years, each with a different point of view. "Stockholders, bondholders, consumers, regulators, and taxpayers each have a somewhat

different idea of what the income ought to be. Each group makes that judgment based on its relationship to the entity."[2]

Q. Does the FCC have any rules regarding the depreciation inputs to be used in pricing collocation?

A. Yes. Title 47, Part 51, of the Code of Federal Regulations, addresses interconnection. Specifically, Section 51.505 addresses the forward-looking economic cost of elements including collocation.

Section 51.505(b) defines TELRIC as "the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements." The FCC further states that the TELRIC cost should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the incumbent's existing wire centers. Additionally, the TELRIC cost should include a forward-looking cost of capital and depreciation rates. Specifically, Section 51.505(b)(3) requires that TELRIC compliant depreciation rates should be **economic depreciation rates**.

Q. What are economic depreciation rates?

A. There is really no such thing as economic depreciation rates. FCC Order FCC 96-325 explains that depreciation rates should reflect changes in economic value. "Properly calculated economic depreciation is a periodic reduction in the book value of an asset that makes the book value equal to its economic or market value."[3] This concept is known as economic depreciation, not economic depreciation rates. Based on FCC Order FCC 96-325, I believe the FCC intended

to require that TELRIC-compliant depreciation rates be developed under the economic depreciation concept.

Q. Please explain the economic depreciation concept.

A. Economic depreciation is a term that has evolved over time. In the 1960s, for example, economic depreciation was defined as ". . . the cost of depreciable assets consumed during a year, expressed in terms of purchasing power of the original investment. Economic depreciation can be calculated by adjusting either the actual-cost depreciation base or the actual-cost depreciation accrual so as to produce an annual depreciation accrual reflecting changes in the value of money brought about by price-level changes."[4] During the 1980s, the term economic depreciation was attached to the theory that measures depreciation by the periodic change in present value of an asset during a given year.[5] The 1996 NARUC depreciation manual defines economic depreciation as "the change in economic value of an asset from one time period to the next."[6]

Economic depreciation is the **method** by which the depreciation accruals or expenses are patterned and is driven by the income generated by an asset or group of assets. Generally, with a forecast of increasing revenues, the economic depreciation model will result in an accelerated form of depreciation accruals; a forecast of decreasing revenues results in a decelerated form of depreciation accruals.[7] Economic depreciation is closely related to the appraisal method.[8]

Q. How does traditional regulatory depreciation compare with economic depreciation?

A. In simplest terms, traditional regulatory depreciation is an accounting

issue based on the concept of allocation. Economic depreciation is based on the concept of valuation.

Traditionally, depreciation accounting is the systematic allocation of the cost of an asset or group of assets over the associated useful or service life, on a straight-line basis. This is achieved by charging a portion of the consumption of the assets to each accounting period, an accounting principle known as the matching principle. The goal is to provide a reasonable and consistent matching of expenses to the related period of service being rendered. In the case of depreciation, this means that depreciation expense should be spread as evenly as possible over the years the associated assets are providing service (estimated useful life or service life). The straight-line method of depreciation provides a uniform allocation of expense to each accounting period during the service life of the assets.

In comparison, economic depreciation is a valuation issue. Economic depreciation is driven by the income generated by an asset or group of assets. It is therefore a measure of change in the value of a group of assets from one year to the next. In theory, economic depreciation differs from traditional regulatory depreciation in that economic depreciation accruals will not be on a straight-line basis. This is because future income used in the economic depreciation model varies from year-to-year. In an economic depreciation model, items such as future interest rates, demand, and future revenues are forecasted to determine the depreciation accruals or expenses.[9]

Q. Where would economic depreciation be modeled in Verizon FL's cost study?

A. If Verizon FL is using economic depreciation in its collocation cost study, it would be reflected in the calculation of the annual depreciation

accruals in the annual cost factors (ACFs). Additionally, any accelerated depreciation mechanism would be modeled in the ACF calculations. These both relate to the calculation of depreciation accruals, not the determination of life.

Q. Please explain the term "service life."

A. The life of an asset refers to the period of time during which the depreciable plant is providing service and thus providing revenues to the company. As with the term useful life, service life is often used synonymously with terms such as average life, average remaining life, **economic life**, life characteristics, life indication, location life, probable life, realized life, average service life, and unrealized life.[10] All such terms relate to a measurement of the period of time the assets are expected to provide service.

Q. How are service lives and economic lives determined?

A. Service lives are determined by considering past as well as future forces of retirement. These forces, as Verizon witness Sovereign enumerates, include wear and tear, action of the elements, inadequacy, economic and technological obsolescence, changes in demand, and management decisions. Economic lives also consider forces of retirement as they relate to future revenues generated by a particular group of assets. Service lives, using either traditional or economic viewpoints, should therefore be expected to be similar when considering the same future forces of retirement.

The period of time the depreciable assets are in service is the service life. The period of time the assets are producing revenues is the economic life. If the assets are in service, it then follows that the assets are

producing revenues. Perhaps the revenues are not the same amount as in the past; however, this is not a life issue. Depreciation charges are based on service life/economic life rather than the time value of money.

Q. If service life and economic life are synonymous, what is the controversy and debate with witness Sovereign's recommended economic lives?

A. In this proceeding, witness Sovereign's testimony purports to support the depreciation lives and future net salvages used in Verizon's collocation cost studies. However, the support witness Sovereign offers is simply the fact that his recommended lives are the same lives Verizon uses for financial reporting purposes and intrastate reporting purposes. Furthermore, witness Sovereign asserts that Verizon FL's recommended lives are reasonable in comparison to the financial reporting lives of competitive telecommunications providers. Witness Sovereign would have the Commission believe that the lives and salvage values Verizon uses for financial reporting purposes originated without some type of analysis within Verizon. I find this very hard to believe given that BellSouth performs data analyses when determining its financial reporting depreciation lives.[11] Without company-specific data or analyses supporting witness Sovereign's allegations of shorter lives, I have difficulty in attesting to the reasonableness of his recommendations.

In the telecommunications industry, as has been the case for the past 20 years, such factors as technological change, competition, and governmental actions are primary considerations in estimating lives. In evaluating these factors, I believe it is important to draw on input from company planners, consultants, and even manufacturers, to the extent such is provided. For obsolete or threatened technologies, planning should be available within the

company. Telecommunications companies should be quite alert to their individual needs and in tune with plans for treatment of obsolete or threatened technologies and reactions to the competitive market.

II. BENCHMARKING

Q. Please comment on witness Sovereign's benchmarking with other competitors as a guide in determining the reasonableness of Verizon's life inputs.

A. Let me respond this way. I believe it is important to avail yourself of as much information as possible in determining depreciation lives. Benchmarking is another tool the depreciation professional should use. This being said, I also believe that with benchmarking we must be very careful to ensure that the comparison is apples-to-apples. In my opinion, it is important to understand the underlying assumptions of those lives used in a benchmarking comparison, whether the basis of the lives is technological obsolescence, wear and tear, tax considerations, or some other basis. Without such an understanding, any comparison is meaningless. Additionally, I believe that competitors are likely to be less capital intensive than an incumbent telecommunications company. With fewer switches and cables, replacement of equipment can be achieved much faster and easier.

Witness Sovereign compares his recommended lives to those reported by AT&T and WorldCom. As the witness notes, AT&T's 2001 annual report lists useful life ranges of 3 to 15 years for communications and network equipment. One of my concerns with drawing the conclusion that this is comparable to

Verizon's recommended lives is that I am unsure what AT&T considers in its grouping of communications and network equipment. The second concern I have is not having an understanding of the basis for AT&T's life ranges. These ranges could represent service lives, remaining lives, or even tax lives. While any would represent "useful life" under GAAP, they might not be comparable to Verizon FL's recommended lives.

For WorldCom and the MCI Group, I have similar concerns. The useful life ranges for transmission equipment reported by the MCI Group are 4 to 10 years; for the WorldCom group the life ranges are 4 to 40 years for the same group. The question that immediately surfaces is why is there so much difference in the high end of the life ranges. Certainly, a conclusion could be made that different equipment is included in transmission equipment reported by the WorldCom group.

Q. Have you conducted a benchmarking analysis?

A. At this time, there is outstanding discovery that will hopefully shed some light on the lives of Verizon's competitors. I will have to wait for that information to be received before I can analyze it. Again, I believe that benchmarking could be a useful tool in determining life inputs, but not the only tool that should be used. I also believe that it is imperative to understand the underlying assumptions in the benchmarked companies' reported lives to ensure that the comparison is apples-to-apples; that is, lives are measured in the same manner, determined by the same methodology, and correspond to the plant held by Verizon FL.

Q. Please comment on witness Sovereign's comparison to the lives used by the cable television operators.

A. Witness Sovereign's comments begin with the FCC's Second Report and Order, First Order on Reconsideration and Further Notice of Proposed Rulemaking, Order FCC 95-502, where the FCC established depreciation schedules for cable television operators. I have read the order and interpret it a little differently than witness Sovereign. The FCC ranges were simply the result of a staff survey of cable television cost of service filings. The FCC staff did not perform any detailed study or analytical review of the lives reported by the cable television operators in their annual reports to stockholders. Again, I do not believe such lives are relevant for TELRIC.

Q. Does the fact that Verizon FL's recommended lives are in line with those recommended by Technology Futures, Inc. (TFI) provide validity to witness Sovereign's recommended depreciation life inputs?

A. Not necessarily. While I believe the TFI reports provide another tool to use in developing depreciation lives, I have reservations with their results.

The TFI industry studies are commissioned by the Telecommunications Technology Forecasting Group (TTFG), an industry consortium founded in 1984. Member companies of TTFG include Verizon, Sprint, SBC Communications, Bell Canada, BellSouth Telecommunications, and Qwest.

The TFI studies rely largely on "substitution analysis" which attempts to forecast the pattern by which new technology will replace old technology. An inherent flaw in the substitution model is that it assumes that new technology will completely replace, not supplement, the old technology. For example, it is my understanding that Asynchronous Transfer Mode (ATM) switching will be deployed as a supplemental technology to existing digital

switches, not as a replacement technology. ALEC testimonies presented in other state proceedings proffer that not all cost-reducing technologies operate to the detriment of existing technologies; some cost-reducing technologies are complementary to existing technologies and increase cash flows over time. Further, "demand-enhancing technological progress" should be considered. It is my understanding that such can cause the demand curve to shift upwards, perhaps as a result of improvements in quality or in the form of new products brought about by the technological change. The result of demand-enhancing technological progress is not to reduce the value of existing networks, but to increase their value.[12]

Q. What other concerns do you have with relying on TFI's recommended lives?

A. Witness Sovereign notes that TFI specifically addresses lives to be used for outside plant cable, central office switching, and circuit equipment. In a 1997 presentation by Fatina K. Franklin of the FCC at the Annual Meeting of the Society of Depreciation Professionals, it was demonstrated that TFI's 1989 predictions for circuit equipment sorely overstated actual retirements. Chart 3 of Exhibit PSL-1 shows TFI predictions that only 21 percent of the circuit investment would be surviving at the end of 1996, while companies 1996 and 1997 depreciation studies showed actual survivors of 60 percent at the end of 1996. TFI predicted nearly three times the retirements as actually occurred.

Exhibit PSL-2 provides an analysis of TFI's fiber in the feeder projections. The data shown on page 1 of the exhibit shows the percent of fiber in the feeder to working lines predicted by TFI in 1988, 1994, 1997, and 2002.[13] If we look at the projections of substitution by 2001, a 78.54 percent

substitution was predicted in 1988, dropping to 45.90 percent in 1994, and 34.60 percent in 1997. The actual copper feeder substitution in 2001 was 32.7 percent. A similar analysis of TFI's fiber in the distribution portion of the network is found in Exhibit PSL-3. As shown on page 1 of the exhibit, the 1994 TFI study predicted a substitution of 42.4 percent by 2003, the 1997 study predicted a substitution of 16.8 percent, and the 2002 study predicted a substitution of 0.5 percent.[14] Page 2 of Exhibit PSL-3 provides a graphic display of the data. Both Exhibits PSL-2 and PSL-3 clearly indicate the change that can take place over time with substitution analyses. Compared with actual substitution of copper facilities, the 1988-1997 TFI forecasts have proven to be overly optimistic and slower displacement has actually occurred. This is important as these analyses are the basis for TFI's recommended economic lives. The decreases in substitution rates reflect lengthened life estimates as actuals have become available.

It should also be mentioned that the TFI studies note that their life estimates are for the industry; some companies may have higher or lower lives. The results are average remaining lives. The projection life (that is, the life for new additions) is computed from the remaining life and depends on the particular age distribution of plant for a given company.

III. ADDITIONAL CONCERNS

Q. What other concerns do you have with Verizon's recommended lives?

A. I have reservations with witness Sovereign's recommended 15-year economic life for underground metallic cable. I am assuming this short life

is predicated largely on a presumption of a rapid displacement of metallic cable in the feeder and distribution portions of the network. In this regard, the U.S. Supreme Court dismissed Verizon's arguments regarding the rapid obsolescence of loop facilities and the inappropriateness of the FCC's prescribed life and salvage ranges. Specifically, the Supreme Court found:

> As to depreciation rates, it is well to start by asking how serious a threat there may be of galloping obsolescence requiring commensurately rising depreciation rates. The answer does not support the incumbents. The local-loop plant makes up at least 48 percent of the elements incumbents will have to provide . . . and while the technology of certain other elements like switches has evolved very rapidly in recent years, loop technology generally has gone no further than copper twisted-pair wire and fiber optic cable in the past couple of decades. . . . We have been informed of no specter of imminently obsolescent loops requiring a radical revision of currently reasonable depreciation. This is significant because the FCC found as a general matter that federally prescribed rates of depreciation and counterparts in many States are fairly up to date with the current state of telecommunications technologies as to different elements.[15]

Additionally, the technological view of twisted pair copper cable plant does not suggest that utilization of this technology is lessening. Factually, the quantity of services provided over copper is expanding. Further, in situations where fiber cables are placed in the feeder portion of the network

parallel to existing copper cables, the placement of digital loop carrier systems allows for the functional replacement of the copper feeder and their reuse as distribution without any physical retirement. This permits continued utilization of the copper cables.

I do not have Verizon FL-specific data at this time. However, assuming that Verizon FL is experiencing a similar pattern of retirements as BellSouth, retirements of copper plant have generally not been much different in recent years than they were before the advent of fiber technology and competition.[16] If one were to rely totally on history, it would then follow that the life expectancy for copper cable today would be in the 40+ year range. However, lives are much shorter to recognize that fiber technology or even wireless technology will impact the life of copper facilities. The point of contention is how much impact there will be.

IV. SALVAGE VALUES

Q. Please comment on witness Sovereign's recommended salvage values.

A. Witness Sovereign's recommended salvage values for Buildings and Conduit Systems are the same as those the Commission adopted for Verizon FL in Order No. PSC-02-1574-FOF-TP, issued November 15, 2002, in Docket No. 990649B-TP. Minor differences exist in Circuit Equipment, and metallic and fiber Underground Cable.

Witness Sovereign's testimony is void of any support or justification for his salvage value recommendations. For this reason, I am unable to comment on the reasonableness of the recommendations. However, I have

requested data through discovery that hopefully will help in assessing the appropriate salvage values.

IV. RECOMMENDATION

Q. What alternatives do you recommend regarding depreciation life and salvage value inputs to use for the purpose of this proceeding in developing recurring collocation rates for Verizon FL?

A. I believe there are several alternatives to witness Sovereign's recommended life and salvage value inputs that the Commission may consider. A comparison of the alternatives are shown on Exhibit PSL-4.

The first alternative is that the Commission could adopt the same depreciation life and salvage value inputs it adopted for Verizon by Order No. PSC-02-1574-FOF-TP. This decision was made relatively recently, and I see no reason why the life and salvage value inputs used in developing unbundled network element (UNE) rates should be any different than those to be used in developing collocation recurring rates. Certainly, witness Sovereign has not presented any new information or evidence to warrant a different decision.

Q. Please respond to witness Sovereign's allegation that the Commission's decision in the recent UNE order did not appropriately reflect Verizon's forward-looking lives and should not be adopted in this proceeding.

A. That case is currently on appeal, but I believe the Commission's UNE decision is a valid determination of the forward-looking depreciation life and salvage value inputs to use in Verizon FL's cost study.

Q. What is your second alternative?

A. A second alternative is that the Commission could rely on the FCC's established ranges of depreciation lives. In this regard, witness Sovereign asserts that the FCC's ranges are not forward-looking. However, in the 1998 review of depreciation requirements for ILECs, the FCC concluded that:

> These ranges can be relied upon by federal and state regulatory commissions for determining the appropriate depreciation factors for use in establishing high cost support and interconnection and UNE prices.[17]

The FCC also affirmed that its life and salvage ranges are forward-looking. Specifically, the FCC stated that:

> In adopting a forward-looking mechanism for high-cost support, we found that depreciation expense calculations based on the Commission's prescribed projection lives and salvage factors represent the best forward-looking estimates of depreciation lives and net salvage percentages.[18]

I have attached as Exhibit PSL-5, the FCC prescribed ranges of lives and salvage values. There are no FCC ranges for the account Buildings. As noted in the Third Report and Order, FCC 95-181, the ILECs have been permitted great flexibility in subcategorizing the Buildings account to meet an individual company's circumstances.[19] Because of the significant differences among the categorization methods, the FCC concluded it could not establish nationwide

ranges without a great deal of work. Recognizing that the planning of the companies did not indicate significant additions or retirements in the near future, the FCC concluded that the underlying factors for buildings were not likely to change, and an extensive analysis of the buildings account was not necessary.

Q. Are there any other alternatives the Commission should consider?

A. Not at this time, as responses to discovery are pending. However, upon review of the record evidence presented at the scheduled hearing, additional alternatives may be able to be formulated for the Commission to consider.

V. CONCLUSION

Q. Please summarize your testimony.

A. The Commission need only address the depreciation inputs for accounts for which data are used in determining Verizon FL's recurring collocation rates. These accounts are Buildings, Digital Switching, Circuit Equipment, Underground Cable - Metallic and Fiber, and Conduit Systems. I disagree with witness Sovereign's recommended life and salvage value inputs for these accounts. He has provided no company-specific data or analyses supporting the allegations of shorter lives. Furthermore, witness Sovereign has provided no support whatsoever for his recommended salvage values. As an alternative to witness Sovereign's recommendations, I believe the Commission could adopt the economic lives and salvage values recently ordered in determining UNE recurring rates for Verizon FL based on the fact that no new information or evidence has been presented to warrant a different conclusion. Another

alternative for the Commission to consider is to adopt economic lives and salvage values in line with the FCC-approved life and salvage ranges.

Q. Does this conclude your testimony?

A. Yes it does.

ENDNOTES

1. Tenth Report and Order, FCC 99-304, CC Docket No. 96-45 and Docket No. 97-16, released Nov. 2, 1999, ¶ 429. (Order on Federal-State Joint Board on Universal Service and Forward-Looking Mechanism for High Cost Support for Non-Rural LECs)

2. *Depreciation Systems*, Frank K. Wolf and W. Chester Fitch, Iowa State University Press, Ames, Iowa, 1994, pp. 5-6.

3. First Report and Order, FCC 96-325, CC Docket No. 96-98 and Docket No. 95-185, released Aug. 8, 1996, ¶ 703.

4. Paul J. Garfield, Ph.D. and Wallace F. Lovejoy, Ph.D., *Public Utility Economics*, (Prentice Hall, Inc. 1964).

5. See, for example, Michael L. Katz and Harvey S. Rosen, *Micro economics*, 2nd Edition, (Burr Ridge, IL: 1994), p. 213.

6. NARUC *Public Utility Depreciation Practices*, 1996, p. 318.

7. Journal of the Society of Depreciation Professionals, 1998, pp. 72-74.

8. NARUC *Public Utility Depreciation Practices*, 1996, p. 54.

9. Journal of the Society of Depreciation Professionals, 1998, pp. 74-75.

10. NARUC *Public Utility Depreciation Practices*, 1996, pp. 321, 324.

11. See Direct Testimony of G. David Cunningham, Docket 990649-TP, Exhibit GDC-1.

12. See Direct Testimony of Dr. Michael A. Crew on behalf of AT&T Communications of the Midwest, Inc. and MCIMETRO Access Transmission Services, Inc., State of Iowa Department of Commerce Utilities Board, Docket No. RPU-96-9, Apr., 1997. See also Direct Testimony of Richard B. Lee on behalf of AT&T Communications of Delaware, Inc. Before the Public Service Commission of Delaware, Docket No. 96-324, Feb., 1997.

13. *Technology Substitution in Transmission Facilities for Local Telecommunications*, Lawrence K. Vanston and Ralph C. Lenz (1988), Exhibit 4.10; *Transforming the Local Exchange Network: Analyses and Forecasts and Technology Change*, Lawrence K. Vanston (1994), Exhibit 3.9; *Transforming the*

Local Exchange Network: Analyses and Forecasts and Technology Change, 2nd Edition, Lawrence K. Vanston, Ray L. Hodges, and Adrian J. Poitras (1997), Exhibit 3.9; *Transforming the Local Exchange Network: Review & Update*, Lawrence K. Vanston, Ray L. Hodges (2002), Table 7.1.

14. *Transforming the Local Exchange Network: Analyses and Forecasts and Technology Change*, Lawrence K. Vanston (1994), Exhibit 3.15; *Transforming the Local Exchange Network: Analyses and Forecasts and Technology Change*, 2nd Edition, Lawrence K. Vanston, Ray L. Hodges, and Adrian J. Poitras (1997), Exhibit 3.37; *Transforming the Local Exchange Network: Review & Update*, Lawrence K. Vanston, Ray L. Hodges (2002), Table 7.4.

15. Verizon Communications, Inc., et. al. V. Federal Communications Commission, et. al., 152 L. ed. 2d 701, 122 S. Ct. 1646 (2002).

16. Order No. PSC-01-1181-FOF-TP, issued May 25, 2001, Docket No. 990619-TP, p. 170.

17. 1998 Biennial Regulatory Review-Review of Depreciation Requirements for Incumbent Local Exchange Carriers, CC Docket 98-137, Report and Order, FCC 99-397, released Dec. 30, 1999, ¶ 34.

18. United States Telephone Association's Petition for Forbearance from Depreciation Regulation of Price Cap Local Exchange Carriers, ASD 98-91, Memorandum Opinion and Order, FCC 99-397, released Dec. 30, 1999, ¶ 61.

19. Third Report and Order, FCC 95-181, CC Docket No. 92-296, Simplification of the Depreciation Prescription Process, released May 4, 1995, ¶ 17.

STATE OF FLORIDA)
: CERTIFICATE OF REPORTER
COUNTY OF LEON)

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

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

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 the action.

DATED THIS 9th DAY OF FEBRUARY, 2004.

Tricia DeMarte

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