BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petitions by AT&T Communications of the Southern States, Inc., MCI Telecommunications Corporation Transmission Services, Inc., for arbitration of certain terms and conditions of a proposed agreement with GTE Florida Incorporated concerning interconnection and resale under the Telecommunications Act of 1996.	)	DOCKET NO. 960847-TP DOCKET NO. 960980-TP

THIRD DAY -- AFTERNOON SESSION

VOLUME 16

Pages 1739 through 1905

PROCEEDINGS:	Hearing
BEFORE:	CHAIRMAN SUSAN F. CLARK COMMISSIONER J. TERRY DEASON COMMISSIONER JULIA L. JOHNSON COMMISSIONER DIANE K. KIESLING COMMISSIONER JOE GARCIA
DATE:	Wednesday, October 16, 1996
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	CATHY H. WEBSTER, RPR C & N Reporters

APPEARANCES:

(As heretofore noted.)

WITNESSES - VOLUME 16

EXHIBITS - VOLUME 16

NUMBER		ID.	ADMTD.
32	(Wood) Withdrawn		
33	(Wood)		1774
42	(Wood) DJW-5	1748	1772
43	(Wood) DJW-6	1748	1772
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45	(Wood) DJW-8	1748	1772
46	(Wood) Affadvait, AT&T re GTE proposed contract provisions (Late-Filed)	1774	
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48	(Duncan) GMD-2, deposition	1791	1794
49	(Trimble) DBT-1 - 4 attached to Rebuttal	1801	
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PROCEEDINGS

(Transcript follows in sequence from Volume 15.)

DON J. WOOD

having been called as a witness on behalf of MCI/AT&T, and being duly sworn, continues his testimony as follows:

CONTINUED CROSS EXAMINATION

BY MR. FUHR:

Q All right. Do you have a copy of your Rebuttal Testimony?

A Yes, sir; I do.

Q On page 2 of your Rebuttal Testimony you discuss or respond to the criticisms that Dr. Duncan has raised with respect to the relationship of the Hatfield Model and the benchmark cost model; is that correct?

A Well, nearly so. I describe here my interpretation of his criticisms. And what becomes clear when you read them is that he's looking at a version of the model that's based on BCM1, not one that's based on BCM-PLUS.

Q To the extent this language suggests that the models are unrelated, that's not exactly accurate, is it, given the explanation that you have tendered in terms of the genealogy of these different models?

A Well, I certainly didn't intend to state anything here that isn't fully accurate. Let me be very clear. Dr. Duncan has looked at several specific areas of criticism. He's not

talking about the models generally. He's named off four or five very specific issues. Those specific issues only relate to BCM1 and do not relate to BCM-PLUS. So with regard to the context of Dr. Duncan's testimony, it would be accurate to say that with regard to those issues the models are unrelated because they're simply different with regard to each of those issues.

Q But would you not agree that if BCM-PLUS is related to BCM1, then Hatfield Release 2 is necessarily related to BCM1?

A Well, I don't want to -- I have a lot of relatives and I wouldn't want to taint them based on my flaws. Certainly BCM1, no bones about it, is part of the ancestry to the current version of the Hatfield Model. There were some identified shortcomings in BCM1, including all of the criticisms made by Dr. Duncan that were fully addressed in BCM-PLUS, which is what is being used here. So, there were no -- There was nothing identified that was an uncorrectable flaw. And, in fact, all the flaws were in fact corrected that Dr. Duncan refers to. So in that sense, to the extent be BCM1 is on the ancestry, that's really not relevant with regard to the issues that I'm discussing in my Rebuttal Testimony.

Q You discuss in here and Dr. Duncan has discussed also the principle of linear homogeneity; is that right?

A Yes, sir.

Q And would you give a 30-second definition of what you

understand that principle to be?

A I'll give you a 30-second definition that hopefully won't include any of the math that he included, although his calculations were impressive. Essentially it's a principle and it's a theoretical classroom principle that you then apply in practice, that essentially says if you look at all the inputs to a model and you increase them all systematically, say by 10%, that if the model is functioning correctly and theoretically perfectly, you would then see all of the outputs increase by exactly 10%.

Now in practice, you know, I'm just a nuts and bolts cost guy, so I'm not discussing Dr. Duncan's theory at all. I'm sure it's correct. But cost models, including Hatfield, including COSTMOD, including SCIS, are not built based on a derivation of theoretical cost functions. They're a nuts and bolts process that are built from the ground up. So you would expect them to very nearly fit this test and it's certainly reasonable to apply the test, but you don't expect a perfect ten. I would think if you, you know, you saw numbers on an increase of inputs at 10% and you saw numbers between 9 and 11%, that would certainly give me quite a bit of comfort that the model was in fact functioning correctly with regard to this constraint. And that's what you see with the current release of the Hatfield Model.

He provided some data in his Rebuttal Testimony that

would not occur in the current version of the Hatfield Model but would only occur in the BCM1 Model.

Q And would it be fair to say that as you move further away from the 9 and the 11% figures that you just referenced, your concerns with respect to the integrity of the model would increase?

A Would increase somewhat, although I can tell you that the results I have show that those in fact are the upper and lower bounds. Well, to be exactly precise, there's a lower bound of 8.999%, so we'll call that 9, and an upper bound of 10 and a fraction, perhaps 10.36. So, for an across-the-board 10% increase, we have results that increase between 9 and about 10 and a half percent. For real world actual working model, that's pretty tight. I would be very interested in seeing this analysis run on COSTMOD, because based on what I know about the model, I don't believe the range would be this small at all; I think it would be much larger.

Q So that I'm clear: You agree that the linear homogeneity principle is a principle that is and may be validly applied to this cost model; correct?

A Well, it can be applied to any cost model as long as you're very careful that you're taking a construct from the classroom and applying it out here in the real world and sometimes that works better than others. In this case what we find is that it works okay; that if you run this model, you do

the across-the-board 10%, you get a pretty tight range around 10% with regard to outputs. That's not to say that this model was developed the way Dr. Duncan describes, which is starting with a grand cost function and working from that; that's not how cost models get done in the real world. In this case, though, the test is borne out.

Q Do you have any criticism of any of the mathematical analysis that Dr. Duncan has provided?

A I am absolutely certain that Dr. Duncan's arithmetic is correct.

Q Okay. You are also familiar, are you not, with the derivative property?

A Yes.

Q And that is a second technical principle that may be applied to a cost model?

A Well, it's actually very related to this one. It's simply taking the first derivative of the cost function; so we're talking about change in both regards.

Q And what do you understand that that principle results in when you apply it?

A I'm not sure what you mean.

Q That's not well phrased. What is your understanding of that principle?

A Well, as I understand Dr. Duncan's testimony, we're not talking about really distinct concepts here. We're talking

about if you have -- If you take a first derivative of the cost function, what you're really trying to get at is this input/output change relationship. So I don't think we're talking about distinct principles here, at least not out here in the nuts and bolts real world.

Q Mr. Wood, have you attempted to compare the results for BCM2 for GTE Florida with your Hatfield Model results?

A No, sir.

Q So you simply would not know what those numbers are and how they compare; is that accurate?

A Well, based on what I know about BCM2, there really wouldn't be any reason to do that comparison because BCM2 includes expenses on a basis that really is a true-up to revenue requirement, if you will. It's what we generally refer to as something very near a fully distributed cost model and I don't think that's appropriate here. I don't think that's consistent with previous orders of this Commission. So there really wouldn't be any reason to look at it.

Q Are you aware that these results, meaning the BCM2 results, are included in the GTE cost filing in this proceeding?

A They may very well be.

Q And you simply haven't looked at those; correct?

A Well, that's right. Again, based on what I know about BCM2, there wouldn't be any reason to.

MR. FUHR: Chairman Clark, that concludes my examination.

CHAIRMAN CLARK: Staff.

CROSS EXAMINATION

BY MS. BARONE:

Q Good afternoon, Mr. Wood.

A Good afternoon.

Q Do you have Staff's Exhibits DJW-5 through 8?

A Yes, I do.

Q Have you had an opportunity, with respect to DJW-5 through 7, an opportunity to review those?

A Yes.

Q And were they prepared by you or under your supervision?

A The responses themselves were. With regard to No. 7, of course, we're attaching a document that was not prepared by me but was supplied by me. But, yes, all of the responses were prepared subject to my supervision; that's right.

Q Thank you. And are they true and correct to the best of your knowledge and belief?

A I believe they are, yes.

MS. BARONE: Thank you. Madam Chairman, Staff requests that DJW-5, 6 and 7 be marked for identification separately at this time.

CHAIRMAN CLARK: Separately?

MS. BARONE: Yes, ma'am.

CHAIRMAN CLARK: Okay.

MS. BARONE: I believe that begins with 42.

CHAIRMAN CLARK: That's right. DJW-5 will be 42. DJW-6 will be 43 and DJW- 7 will be 44.

(Exhibit Nos. 42, 43 and 44 marked for identification.)

BY MS. BARONE (Continuing):

Q Sir, with respect to DJW- 8, that is your deposition transcript dated 10/1/96, do you have any changes or corrections to make?

A No, other than the normal, occasional transcription typographical error, there is nothing that I've seen of substance. So I would not propose changes to that document.

MS. BARONE: Thank you. Madam Chairman, Staff requests that this exhibit be marked for identification as Exhibit No. 45 at this time.

CHAIRMAN CLARK: It will be marked as Exhibit 45.

MS. BARONE: Thank you.

(Exhibit No. 45 marked for identification.)

BY MS. BARONE (Continuing):

Q Sir, a forward-looking network operations factor with a value of .700 was used in the model; is that correct?

A Yes, that's right.

Q And am I correct that most factors in the model are

based on ratios of historic expenses to the investments to which they're associated?

A It's based on the ratio, yes, not the absolute levels; that's right.

Q And what was the primary source you used to derive the expense factors that were used in the model?

A Well, again, going with the best available public strategy, most of these came from ARMIS and then whether it has been publicly provided data that suggests that an adjustment is appropriate, those type of adjustments have been made and the example you gave here of the network operations factor is that type of adjustment.

Q Sir, was that the 1995 ARMIS Report?

A Yes.

Q So am I also correct that by using the default value for the forward-looking network operations factor, it is assumed that network operations expenses will be reduced by 30% from the historic levels?

A That's right. And, again, there's data that suggests 30, there's data that suggests about 56; so we took the low end of that range to go with the 30.

Q Sir, Staff now is handing you an excerpt from Part 32 of the Code of Federal Regulations; that's also known as the Uniform System of Accounts. Would you refer to that and tell me specifically what expense account items are included in

network operations expense, please?

A Yes. It actually encompasses all of 32.6530. Of course, that account is the roll up of the subsequent accounts that are listed after it, but it's based on that account.

Q And would you enumerate those for me, please?

A Sure. Within I guess what I'd call sub accounts, within "Network operations expenses" are "Power expense, Network administration expense, Testing expense, Plant operations administration expense, and Engineering expense." And then I think the next accounts starts out with a different category, so we're talking about those five.

Q With respect to "Power expense," would you please read the description for me.

A "This account shall include the cost of electrical power used to operate the telecommunications network."

Q By applying the .700 forward-looking network operations factor, isn't it true that the effect is to assume that the power expense will be reduced by 30% relative to the 1995 levels?

A Not quite. The .7, the 30% reduction is being applied to the roll-up account, the 6530 account. It doesn't necessarily assume that all of the sub accounts will necessarily decrease by that same amount. Some may decrease very little. Some may decrease quite substantially. It's a netting-out process at the roll-up account, the 6530 level, at

which the factor is applied.

Q Would that also hold true for testing expense and general engineering?

A Yes. It will hold true for all of these. And, quite honestly, I would expect power not to constitute a big piece of that 30%, although it may be some, because there is certainly equipment that can be purchased today that is not the power hogs that we used to see in central offices, so there may very well be some. Certainly some of the engineering and the plant operations are more likely sources for these decreases.

Q Do you know what the impact of using this forward-looking network operations factor is on the model's computed total loop costs?

A No, I have not run that particular sensitivity analysis.

Q Would you accept, subject to check, that using the .700 factor reduced total loop costs by 62 cents per month?

A That sounds reasonable to me. I'm sure if Staff has run that particular sensitivity that it's correct.

Q Sir, I would like to turn to page 2 of your Exhibit, DJW-2?

A I'm sorry, I'm not marked completely. So if you could describe it to me I can find it quicker.

Q Okay.

A Oh, yes.

Q And I'm referring to the structure fraction assigned to telephone numbers and that's page 2 of 25 at DJW-2, it was attached.

A I'm getting the document. It's the .33 is the fraction I think you're referring to.

Q Yes, sir.

A Yes. And, yes, I now have it in front of me.

Q Could you explain what these numbers are and how they are used in the model?

A Sure. It's very rare that a telephone company or a power company or a cable company actually goes out, puts poles in for its exclusive use and runs only its facilities and then next door to those you'd have another set of poles for the other company and another set of poles. In fact, utilities make use of each other's structure quite often, often enough that they get into disputes about what the lease rates ought to be from the company that placed the structure to the company that is utilizing it.

If we just ran the model to say that we assume that, in this case, GTE Florida is going to place all its own poles, won't lease out any of that space to anybody else or won't take advantage of existing poles and leasing space on them, then we're going to overstate the structure costs perhaps significantly, certainly to some degree. And this -- I'm using poles as an example. This would also apply to conduit and

trenches and that sort of thing.

What this assumes is that there will be -- In the most likely scenario is that there will be three utilities, perhaps power, telephone and cable, that will be making use of these facilities. So, rather than assign the full cost of the facility just to telephone, we've given it its one-third share and power and cable, for example, the other one-third share.

Q Sir, I think earlier you stated in response to Mr. Fuhr's questions that a scorched node approach is used. In reference to that, why is it appropriate to assume that structures, that there will -- that the structures will be shared?

A Well, we don't want to do selective scorching here. If we're going to scorch the telephone, we'd better go ahead and scorch power and cable at the same time or not scorch them, as the case may be.

If we're looking at existing switch locations and then working from those routes as they emanate from the central office, what we're scorching is the location of those specific routes necessarily. To the extent that telephone, power and cable were all going to rebuild in that environment at the same time, we'd probably find an even greater incidence of sharing of these facilities than we find historically because as time goes on, at least with regard to tele- -- certainly with regard to telephone and increasingly with regard to cable and power,

they're finding new incentives to decrease costs and be more efficient. So if we really scorched everybody and had everybody build from these locations going out from scratch, we'd probably see even more sharing of facilities rather than less, but certainly it would still be reasonable to assume the sharing.

Q Am I correct that the model run for GTE Florida assumed there would be buried cable?

A I'm sorry; assumed it would be --

Q Buried cable.

A Depending on the type of plant you're talking about, there will be some buried cable; I think that's right.

Q So you assumed it in the model, that there would be?

A That's right. And it will be a different amount percentage that's buried for feeder or distribution, for example, but there is some buried cable.

Q Now to install buried cable, a LEC incurs costs associated with trenching; correct?

A Sometimes yes and sometimes no. The actual instrument that's used or piece of machinery, I guess is a better term, doesn't really dig a trench. And I've been watching one recently in my subdivision. So I've got at least that bit of firsthand experience. It actually has a blade that cuts a hole, the fiber or the cable is actually fed down through the blade and placed directly, and the blade moves on, so there's

not an opening of a trench and a closing of a trench. It's -- I don't know what the engineering term would be -- sticking it down there directly comes to mind, but it's not necessarily a trenching process. And I think this is actually much cheaper than opening and closing a trench.

Q But the Hatfield documentation assumes that there is going to be trenching costs of $45 per foot; is that correct?

A That's right. And to the extent that there is a cheaper way to do it, there is some overstatement of costs here.

Q Now by using a structure factor .33 then, there's only $15 per foot for trenching attributed to telephone service; is that correct?

A If I understand your question correctly, you're right. Actually no one has asked it quite that way before. Let me think about that for a minute. Yes, the answer is yes.

Q But the LEC presumably spent $45 per foot for trenching, so who's paying the other $30?

A Well, actually, the middle assumption is the one that may not be right and, that is, when you look at areas that are being developed -- And I happen to be living in the middle of a construction zone, so I'm seeing some of this stuff. You're seeing trenches opened and three or four utilities actually coming out and using that. And it's probably not even any of the one of the three utilities that's digging the trench. What

I've seen are subcontractors digging a trench, utilities making use of it jointly, they're coordinating their efforts as they put their facilities in place to save money. And as the incentive to save money increases, I think we'll see these guys getting together more.

So, the answer to who else pays for it is whoever else is putting facilities in that trench and at least in this case it was cable and power.

Q So in your opinion would it be normal procedure for a LEC to seek out other service providers to share the costs of trenching before they install the buried cable?

A If it hasn't been standard procedure in the past in a rate of return environment, and I can see where maybe it wouldn't be, going forward, if they're right in what they tell us about the new incentives of competition and the new incentives of a price cap arrangement, then I think we have every reason to expect it to become standard procedure. I think they're going to find -- They're some very qualified people running these companies; they'll find ways to save money and this one appears to be a pretty obvious one that they can make use of.

Q Do you know what percent of GTE Florida's conduits are shared by other kinds of providers?

A No, I don't.

Q Do you know what percent of GTE Florida's telephone

poles are shared by other kinds of providers?

A No. And, again, we don't want to look at what's in place today. We want to look at on a going-forward basis what the number would be and what the sharing would be and if they have got more incentive to share in the future, we're going to see more of it, but certainly there is some today.

Q Mr. Wood, would you accept, subject to check, that using the .33 factors reduced the total loop costs computed by the Hatfield Model for GTE Florida by almost $4 a month, $3.90 to be exact?

A Again, I haven't run that analysis, but if Staff has run it, I'll accept your figures. Again, I guess I'm glad to see that Staff has made use of the model to run the sensitivity analysis.

Q When a telephone company installs copper cable, is the kind of cable that could be suspended on telephone poles identical to the kind of cable that could be buried in the ground?

A No, it will be a little bit different. Often the suspended cable will have additional facilities that will control the stretch. If you have ever looked at lines on a pole in the summer, they sag quite a bit more than they do in the winter. And, similarly, if you're going to bury cable directly and not put it into a conduit, you're going to make sure that there is a sheath that will protect from water entry.

So there is going to be some difference. There's not always a big cost difference. It's a much bigger driver to go to, from a, say a 20-pair cable to 3600-pair cable. That makes much more difference than some of these other characteristics, but there will be some different ones.

Q Is the price of cable that could be suspended on poles identical to the price of cable that could be buried in the ground?

A No, again, it won't be identical. It will be different but it won't necessarily -- That won't necessarily be the factor that drives the difference.

Q So does the Hatfield Model assume that the materials price of aerial cable differs from that of underground cable?

A Well, it's got a different set of assumptions. And let me get on the right page. The costs that you see there are not always different, but they're changeable to reflect the possibility.

Q I believe that's C-1.

A It's on C-1. I was actually also looking at the document that has the column that describes the sources. But, at any rate, you're going to see -- Where you see, you're going to see two different columns here for Hatfield inputs, so that it's clear that for different types of cables that will be used in different ways like that, that the model will accommodate differences in costs. To the extent that a significant

difference in costs hasn't been identified, then you'll see essentially the same inputs being used but these are user definable. So if there were a demonstration made, that there were a very significant difference, we could plug that straight into the model; it wouldn't require any additional effort to accommodate that.

Q So are you saying the Hatfield Model does not assume that the materials price of aerial cable differs from that of underground cable?

A Well, I'm sorry, let me catch up with you on C-1. In this case, well, I guess let's pick one. If we look at fiber feeder cable investment per foot for an underground and for aerial, there are two columns and two sets of inputs to accommodate differences in costs. Now in this case, there haven't been significant costs that are identified, so the numbers are the same. But it's possible to make the numbers different within the structure of the model without any problems.

You are going to have some tradeoffs. If you want to suspend a cable, you'll have to make it a little stronger but the sheathing doesn't have to be as significant. If you're going to bury it, you'll need to make it, add some water protection but it doesn't have to be as strong. So there are some tradeoffs that ultimately the costs aren't dramatically different. But if we were to find that they were different,

the model is set up to accommodate that.

Q And, sir, for the record are you looking at "BCM-PLUS Loop Module Inputs"?

A Yes, that's right.

Q And you are referring to "fiber feeder cable investment per foot"?

A That's right, which is on the left, kind of in the left hand middle, I guess. And what you see there is the cable size makes a very big difference in the cost per foot, but that we haven't identified a big difference in the cost per foot with regard to aerial versus underground.

Q And are those figures identical or not?

A Yes, they are. That's what I'm saying. The cables are certainly different for aerial and underground, but there are tradeoffs that make the costs very similar. To the extent that the costs are found to be different, we can plug that right in. It's not a big exercise.

Q Mr. Wood, would you please turn to page 6 of your Direct Testimony, beginning on line 15, continuing through to 19, where you state, "In contrast to the difficulty often experienced when attempting to evaluate ILEC cost studies and the underlying models, a review of the Hatfield Model can be direct and straightforward. Complete and detailed documentation of the model is available including descriptions of both the model algorithms and the inputs and assumptions

used."

Is the documentation to which you refer as a document titled "Model Description, Hatfield Model, Version 2.2 Release 2"?

A Well, it's certainly that in part. And I think that's the DJW-4 Exhibit, and that certainly comprises a very significant part of this documentation. The follow-up list of inputs and the description of the sources is another piece of that puzzle, if you will. And certainly the availability of the software on the public basis to be reviewed is part of that documentation process.

What I'm describing here is not intended to refer to some single document so much as everything that's being provided here, which contrasts quite starkly with what's typically provided publicly by the incumbents.

Q I would just like to clarify something. I have DJW-4 and it states that it's the Hatfield Model Unbundled Network Element Summary; it's not all of the documentation?

A Okay. Then I've just missed -- I made a reference that's incorrect. I thought that what was added to -- Yes, the document that Mr. Melson has was DJW-4. If it's not, we can dispense with the exhibit number and go straight to the title.

Yes, I'm sorry. Is this what we're talking about?

Q We're talking about the Hatfield documentation and I believe it's now Staff's Exhibit previously identified as 6.

MR. MELSON: Madam Chairman, I believe it's also Exhibit 41, which was DJW-4. I don't know if they're talking about two different documents or the same one.

MS. BARONE: Okay. Thank you.

BY MS. BARONE (Continuing):

Q Sir, on what date did you file your Direct Testimony?

A Let's see. I'm sorry. The AT&T testimony was filed earlier, but as I understand the process we went through, we're actually adopting the August 26th MCI testimony for both proceedings. So, August 26th.

Q When did you file the AT&T testimony?

A Before then. I don't have a cover page with a date.

Q Would you agree, subject to check, that you filed that on August 16th, 1996?

A That sounds about right.

Q Sir, earlier you said that 2.2.2 was available on August 20th, 1996. How would GTE Florida have gone about obtaining the model and its documentation at that time?

A The models, it's International Transcription Service, I think. It's ITS. It's a service that provides these type of documents and they would contact them directly. I believe there's a reference in the documentation and was a -- There was also a reference in the earlier version of the documentation, which they would have had access to, that tells you how to get in touch with those folks.

Q Is the Hatfield Version 2.2 Release 2 that you used to prepare your exhibits the same model that was submitted as an ex parte filing with the FCC in CC Docket 96-45, and that's the universal service docket?

A I'll have to -- I don't recall the date on 96-45. I'm sorry.

Q Do you recall filing that in that docket?

A I believe that AT&T did, yes, but, quite honestly, depending on the date of the filing, it would have been a different version of the model. And I honestly don't recall what the current version of the model was at the time that filing was made.

Q Are you stating that there were two different versions filed as an ex parte filing?

A No. No, no, no. No. Only that there's been a Release 1 and now a Release 2 and I simply don't recall the date of the FCC filing to know whether it was made before or after Release 2 became available.

Q Sir, I'm not looking for the date. I just want to clarify that the 2.2 Release 2, that you prepared or you used in preparing your exhibits was the same model that was submitted as an ex parte filing in that docket. I don't want to know the date. I just want to know whether it's the same documentation that was filed.

A Well, and that's what I'm trying to figure out and the

date is kind of a key piece of that. I know that this version has been provided as an ex parte filing, but with regard to the specific docket you referenced, I don't know whether it was this version or the previous version. And I simply don't know. If I had the date, it would be a pretty good hint, but I don't have it here.

Q Would you agree, subject to check, that Hatfield 2.2 was filed with the FCC on September 10th, 1996?

A I would certainly agree to that, subject to check.

Q And with respect to what was filed, do you know -- I know you don't know the date -- but do you know exactly what was filed, whether it was the documentation, whether model printouts were filed, whether the model was filed on CD-ROM?

A I expect the answer is all of the above, but I was not responsible for preparing that package and I really wasn't involved in preparing it. So, that's the best answer I can give you.

Q Sir, earlier you referred to ITS. Am I correct that once the ex parte filing was made, the model on CD-ROM was then available for purchase from ITS?

A It's my understanding that that's the requirement, yes, associated with ex parte filings.

Q So the first time the model was publicly available then for review and evaluation was on or after September 10th 1996; is that correct?

A With regard to this version from the ITS source, I guess that's right. To the extent -- It's certainly been provided publicly prior to that date because the FCC ex parte filing was not the first time that 2.2.2 had been provided. It's been provided to the staffs of a number of different commissions, state commissions, prior to the FCC filing. We don't always want to wait on the FCC. And it has been made available to some intervenor parties prior to that date, too, I believe.

Q But it wasn't distributed broadly or, in other words, did GTE Florida have access to it at that time?

A I don't know whether GTE Florida had access to it or not. I know other companies asked for it and were given a copy. I know specifically that US West did so. So I suspect that if GTE asked, they got it on the same basis.

Q So, in other words, if people asked or companies asked for it, they could get it, but it wasn't publicly available until September 10th, 1996, or thereafter?

A Yeah, I mean, it's not that we were holding it back. It's just that we don't really have a distribution system in place for this thing. It was purely a case of developing the current version to be released and then, once it was ready, certainly provided to anyone who asked for it. And once we then went through the ex parte filing process at the FCC, we then had the ITS form of distribution that people could avail

themselves of. But it wasn't a case of wanting to hold the model back; it was simply a case of neither Hatfield, AT&T or MCI are really in the computer software distribution business, so we really didn't have those distribution channels to use.

MS. BARONE: Thank you, Mr. Wood. That's all I have.

CHAIRMAN CLARK: Questions, Commissioners.

Mr. Melson.

MR. MELSON: I have just a few.

REDIRECT EXAMINATION

BY MR. MELSON:

Q Mr. Wood, if you could go back to Exhibit 41, which is the model description for the Hatfield Model.

A Yes, sir.

Q I believe Mr. Fuhr asked you if there was a description in there of the relationship between effective fill factors or realizable fill factors and engineered fill factors. Could you turn to page 20 and see if that is the discussion you were attempting to locate earlier?

A Yes, I believe this paragraph actually appears in more than one location, but this is certainly one of them. It's a paragraph in the middle of the page that says, "The effective fill factors achieved by the Hatfield Model are even lower than the engineered fill factors because the model requires that the next larger available cable size be installed to accommodate the engineered fill."

And, of course, the engineered fill are the figures that are in the documentation that Mr. Fuhr and I were looking at. So, this is at least one instance of the paragraph that I was looking for at the time.

Q As a follow-up to Staff's last line of questioning, if Dr. Duncan stated in one of his exhibits that he received a working version of 2.2 Release 2 on August 26th, you wouldn't have any reason to doubt that; would you?

A No, not at all. Again, anybody who asked for it was provided a copy, so that he could certainly very well have had that version earlier.

Q Let me ask you to assume for a moment that the FCC Order did not exist.

A Yes, sir.

Q In your opinion would the Hatfield Model comply with the pricing standards of the Telecommunications Act of 1996?

A Yes, sir. And that's one thing I described before. Good economic costing principles really are good economic costing principles with or without the FCC interpretation. So, in that regard I think the Hatfield Model would be fully compliant with the Act and fully compliant with previous decisions of this Commission regarding TSLRIC calculations.

Q I believe in response to a question by Mr. Fuhr about linear homogeneity, you indicated that you believe that the model, if you varied the input assumptions by 10%, the model

would produce output results that varied from the base case, I believe you said by 8.999 to 10.36%; is that correct?

A Yes, that's right.

Q What's the basis for that statement?

A Well, in response to the expression of Dr. Duncan's concerns, clearly in his testimony he was talking about Release 1, which is not what's being filed, but I wanted to make sure that once the changes that had been made from BCM1 to BCM-PLUS had been made, that the Hatfield Model Release 2 was much tighter range, as I fully expected it to be. I had the model run; now it takes a while to change 200 inputs or 400 inputs. So we weren't able to do all the states, but I did have it run for the State of Texas because that's Mr. Steele's home state and I thought he might enjoy that. The results of that run are a total loop change of 9.52% on the outputs and a range among all the elements of the 8.999 to the 10.360.

Q I believe you also indicated in response to a question that you would like to see a linear homogeneity test applied to COSTMOD. Can you tell me what COSTMOD is?

A Yes, COSTMOD is the primary costing model that GTE uses to conduct its studies and it's been using some version of this model for several years now. Like the Hatfield Model, there are multiple versions of COSTMOD and it has a version number on it as they use it. It also, having reviewed it, although on a limited and proprietary basis, in other places

and, in fact, including here, in 900633, what's clear is that without divulging anything proprietary, that model uses the type of multipliers --

MR. FUHR: I'm going to object to the answer to the extent it goes on and it's not responsive to the question. It was not disclosed in the deposition and apparently it's also based on some sort of review of proprietary information.

MR. MELSON: I believe it was an appropriate follow-up to a question that Mr. Fuhr asked today. If they neglected to ask it in the deposition, I don't think that should limit the witness' response.

CHAIRMAN CLARK: I will allow the question.

WITNESS WOOD: Well, if you look at -- And I won't divulge anything proprietary because I'm very careful about that. But having looked at that model, it contains the type of multipliers that Dr. Duncan referred to as I guess what I'd call his primary suspect of where the lack of linear homogeneity in BCM1 might come from. Based on that type of examination, I'd be very interested to see this analysis of COSTMOD because I believe it contains exactly the type of calculations that Dr. Duncan expressed a concern about.

BY MR. MELSON (Continuing):

Q And, finally, you were asked couple of questions by Staff that were based on apparent model runs that Staff had performed with different assumptions regarding the adjustment

to network operations expense and different assumptions regarding the sharing of poles, conduits and so forth; do you recall those questions?

A Yes, I do.

Q In your judgment, would it be reasonable to assume for network operations expense that the forward-looking costs are going to be exactly equal to the historic costs?

A Well, no, I think there's good evidence to suggest that that won't be the case, which is why we've adapted some of that information into the model. Again, we've used the lower end of the range. And I haven't commented on whether I think -- I mean, I don't know the purpose that Staff has intended in its sensitivity analysis, so I haven't commented on whether it's appropriate or not. Certainly that type of analysis is exactly what a public version of the model is intended to facilitate. So in that regard I think it's absolutely worthwhile. But I would certainly expect network operations expenses to decrease. So you'd have some factor less than one that ought to be applied.

Q And would you -- What would be your expectation about the appropriate level of a factor for sharing of poles, conduits and so forth?

A Well, to the extent that there are three utilities operating in an area, I think this is a very reasonable assumption. I think, again, going forward, as we see greater

incentives -- And, of course, that's what we're studying here is the forward-looking, as we see greater incentives for cost savings, this is a real opportunity that GTE Florida can avail itself of.

MR. MELSON: I have got nothing further. And we would move Exhibits 40 and 41.

MS. BARONE: Chairman Clark, before we do that, Staff has one last question, if that's okay with you.

CHAIRMAN CLARK: Go ahead.

MS. BARONE: Thank you.

RECROSS EXAMINATION

BY MS. BARONE:

Q Mr. Wood, regarding your Hatfield Model Unbundled Network Element Summary that was identified as DJW-4, is it your position that the unit costs listed in that exhibit are also the proposed rates for these unbundled elements?

A Yes, they are. These costs are intended to be fully inclusive and fully compensatory. So a rate set at this cost will fully compensate GTE. So these are our rate proposals as well.

MS. BARONE: Thank you.

CHAIRMAN CLARK: Okay. Exhibits.

MR. MELSON: 40 and 41.

CHAIRMAN CLARK: Without objection, 40 and 41 will be admitted.

(Exhibit Nos. 40 and 41 received into evidence.)

MS. BARONE: Staff moves 42 through 45.

CHAIRMAN CLARK: Those exhibits will likewise be admitted without objection.

(Exhibit Nos. 42, 43, 44 and 45 received into evidence.)

MR. MELSON: May Mr. Wood be excused?

CHAIRMAN CLARK: Yes, Mr. Wood may be excused.

MR. MELSON: Thank you.

CHAIRMAN CLARK: Mr. Tye.

MR. TYE: Yes. Chairman Clark, we I believe have a resolution to the problem with respect to Exhibits 32 and 33.

CHAIRMAN CLARK: Okay.

MR. TYE: Let me see if I can state correctly where we are. Exhibit 32 was an update of something that was contained in Exhibit 31. Yesterday Staff asked GTE to provide a red-line version to indicate the differences between Exhibit 32 and what was contained in Exhibit 31.

CHAIRMAN CLARK: Yes.

MR. TYE: And that was what was submitted this morning is Exhibit 33. It occurs to us that we don't need both Exhibit 32 and 33 in the record. We would propose either to substitute the red-line version for Exhibit 32 or to just withdraw, have GTE withdraw Exhibit 32 and we'll talk about Exhibit 33 and we've got a stipulation with respect to that, I believe.

CHAIRMAN CLARK: So Exhibit 32 will be withdrawn?

MR. TYE: Yes, ma'am.

CHAIRMAN CLARK: All right.

(Exhibit 32 withdrawn.)

MR. TYE: And with respect to Exhibit 33, AT&T will not object to Exhibit 33 pursuant to the following procedure: AT&T will review GTE's updated proposed contract. To the extent that GTE's updated proposed contract includes provisions that are not included in or are different from the contract filed with GTE's response and received into evidence as Exhibit 31, AT&T may submit as a late-filed exhibit an affidavit addressing or commenting on such provisions.

CHAIRMAN CLARK: Okay.

MR. TYE: And we would do that by close of business on Wednesday, October 23rd. And we'd ask that that affidavit be assigned a late-filed exhibit number.

CHAIRMAN CLARK: It will be Late-Filed Exhibit 42 and it is -- Give me a title. Affidavit?

MR. TYE: Affidavit of AT&T commenting on GTE proposed contract provisions.

CHAIRMAN CLARK: Commenting on --

MR. MELSON: Commissioner Clark, what was the number again?

CHAIRMAN CLARK: Forty-six.

MR. MELSON: Thank you.

CHAIRMAN CLARK: Commenting on --

MR. TYE: Commenting on --

CHAIRMAN CLARK: GTE --

MR. TYE: GTE proposed contract provisions.

CHAIRMAN CLARK: Okay. That will be Late-Filed Exhibit 46. And when did you say that would be provided?

MR. TYE: We will provide it by close of business Wednesday, October 23rd, one week from today.

(Late-Filed Exhibit 46 marked for identification.)

MS. CASWELL: Chairman Clark, just for purposes of comparing the original with the new red-line version, I would like to point out that Exhibits C, D, E and F have not changed from the original version and they weren't resubmitted in the red-line because they contain confidential information about cost and pricing data.

CHAIRMAN CLARK: Okay.

MR. TYE: Thank you, Chairman Clark.

CHAIRMAN CLARK: Thank you. We will take a break for lunch and come back at 1:15.

(Luncheon recess.)

CHAIRMAN CLARK: Let's reconvene the hearing. I have two things -- two things I wanted to cover. Just so the record is clear, Exhibit 33 will be admitted in the record and 32 is withdrawn.

(Exhibit No. 33 received into evidence.)

CHAIRMAN CLARK: Also, you'll notice Commissioner Julia Johnson is not here. There is an emergency meeting of State Commissioners in Washington which she is attending. So she will not be with us for the rest of the hearing, but she will read the transcripts in preparation for a vote on the matter.

In addition, Commissioner Kiesling will be down here in a minute, but then she has to leave for an appointment she could not defer. She will be gone probably between 2:00 and 4:00 and then she will be back at that time.

So we will have -- We still have a quorum here and so we're going to go forward.

And the next witness is Dr. Duncan. Okay.

MS. MURPHY: That's correct, Chairman Clark, and he has not been sworn.

CHAIRMAN CLARK: Would you please stand and raise your right hand.

GREGORY M. DUNCAN

was called as a witness on behalf of GTE Florida and, having been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. MURPHY:

Q Dr. Duncan, can you please give your name and address.

A My name is Gregory Michael Duncan. My address is National Economic Research Associates, 555 South Flower Street,

Suite 4100, Los Angeles, California 90071.

Q Can you please state your occupation.

A I am an economist.

Q Who are you employed by?

A National Economic Research Associates.

Q Did you cause to be submitted Direct Testimony to Docket No. 960847 of four pages?

A Yes, I did.

Q Was there an exhibit attached to that?

A Yes, there was.

Q Do you have any changes to that Direct Testimony?

A Yes. To the Direct Testimony, no.

Q Can you please tell us those changes?

A I want to change the exhibit.

CHAIRMAN CLARK: Let me interrupt you for just a minute. Would you tell me what pieces of testimony I should have in front of me? Are there four pieces of testimony?

MS. MURPHY: I believe there's only two. He submitted Direct Testimony to both dockets. One is just basically adopting the first one.

CHAIRMAN CLARK: Okay. I have that. Thank you very much.

WITNESS DUNCAN: Yes, I would --

BY MS. MURPHY (Continuing):

Q Do you have any changes to the testimony? In your

Direct Testimony, are there any changes to the actual testimony portion?

A Those are the four pages?

Q Those four pages.

A No, there's no changes to that.

Q Is there an exhibit attached to that testimony?

A Yes, there is.

Q Do you have any changes you would like to make to that exhibit?

A Yes. I would like to replace that exhibit with another exhibit, a paper dated September 13th, which I have previously provided to MCI and AT&T counsel and to staff in my deposition.

Q While this exhibit is being handed out, do you have any other changes to either your Direct Testimony or the exhibit?

A No, I do not.

Q If I were to ask you the same questions today under oath, would your answers be the same?

A Yes, they would.

MS. MURPHY: Chairman Clark, I ask that his testimony be inserted into the record as though read.

CHAIRMAN CLARK: Can we do both pieces of testimony?

MS. MURPHY: Certainly.

CHAIRMAN CLARK: Okay. The testimony of Dr. Duncan in

Docket 960847 and in Docket 960980 will be inserted in the record as though read.

MS. MURPHY: GTE tenders Dr. Duncan for cross examination. Oh, I'm sorry. I apologize.

Dr. Duncan --

CHAIRMAN CLARK: One other thing: Before he does his summary, let's mark the exhibit attached to his Direct Testimony in 960847 as Exhibit 47.

MS. MURPHY: Thank you.

CHAIRMAN CLARK: And it's the updated version dated September 13th, 1996. Okay.

(Exhibit No. 47 marked for identification.)

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF GREGORY M. DUNCAN

DOCKET NO. 960980-TP

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Gregory Michael Duncan. My business address is 555 South Flower St., Suite 4100, Los Angeles, CA 90071.

Q. ARE YOU THE SAME GREGORY M. DUNCAN WHO FILED DIRECT TESTIMONY IN DOCKET 960847-TP, THE ARBITRATION BETWEEN GTE AND AT&T?

A. Yes. I submitted that Testimony on September 10, 1996.

Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?

A. That Testimony provided an economic evaluation of Version 2.2 of the Hatfield Model, which AT&T relies upon to estimate the costs of incumbent local exchange carrier network elements.

Q. DOES MCI ALSO USE THE HATFIELD MODEL TO DERIVE PRICES FOR UNBUNDLED ELEMENTS?

A. Yes, it does. My evaluation of the Model and conclusions about its shortcomings will, of course, remain constant, regardless of the identity of the party supporting the Model. For this reason, it would be unduly repetitive to submit wholly new testimony in response to

this aspect of MCI's arbitration filing. I am therefore adopting my Direct Testimony in the AT&T arbitration as my Direct Testimony in this proceeding with MCI. This approach is consistent with the Commission's consolidation of the AT&T and MCI arbitrations. Any MCI-specific modifications of the Hatfield Model will be addressed in my Rebuttal Testimony.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF GREGORY M. DUNCAN

DOCKET NO. 960847-TP

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Gregory Michael Duncan. My business address is 555 South Flower St. Suite 4100, Los Angeles CA 90071.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed by National Economic Research Associates as Vice President. Before that, I worked for GTE Laboratories, Inc. with the Department of Economics and Statistics where I was a Staff Scientist; a position reserved for a small number of independent researchers with responsibility for developing, proposing and conducting research as well as supervising the research of other economists and statisticians at GTE Labs.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL BACKGROUND AND EXPERIENCE.

A. I received a M.A. in Statistics in 1974 and a Ph.D. in Economics in 1976, both from the University of California, Berkeley. Beginning in 1975, I taught in the Economics Department and Statistics Program at Northwestern University in Evanston, IL, where I was an Assistant Professor of Economics and of

Statistics. There, my teaching included demand and production theory, econometrics and statistics. I also conducted research on demand and production that appeared in refereed journals. I left Northwestern in 1979 to join the faculty at Washington State University. There, I served as Professor of Economics and of Statistics. My research continued in demand, production theory and applications as well as in other topics. During that period, I was one of the first Associate Editors of the academic journal *Econometric Theory*. I have published many refereed papers in cost, production, and demand analysis, including the results of the research that supported other testimony before a number of regulatory commissions. During my career, I have spent a good part of my time working on the analysis of cost data and have been fortunate enough to be able to contribute much of it to the academic literature on costs and production. My papers in this area appear in the *International Economic Review, Proceedings of the National Academy of Sciences, Econometrica,* and the *Journal of Risk and Uncertainty.* In addition, under my supervision, a number of Ph.D. students at Northwestern University, Washington State University and Boston University wrote dissertations that utilized modern cost and production methods. The results of some of these dissertations have also been published as contributions to the economics profession's understanding of costs. My particular expertise includes the formulation, specification, estimation and testing of cost models.

And, as a consequence, I was asked to teach and have taught numerous graduate level courses that covered directly and indirectly all aspects of cost analysis.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide an economic evaluation of Version 2.2 of the Hatfield Model. This costing model is relied upon by AT&T witness, Don J. Wood, in AT&T's Petition for Arbitration against GTE Florida Incorporated. This evaluation is attached to my testimony and is marked as Exhibit No. GMD-1. In that evaluation, I describe how the Hatfield Model is fundamentally flawed and why it does not provide reasonable estimates of the costs of incumbent local exchange carrier network elements. I also describe the shortcomings of the model and conclude that, because of those shortcomings, the model understates the cost of loop plant and local switching by about ~~$6.00~~ $9.00 per line per month. The Hatfield Model bases prices on costs that no real-world provider could hope to meet, and as such, is anti-competitive and stifles rather than promotes facilities-based competition, which is the most effective type of competition. In addition, because the Hatfield Model requires LECs to sell inputs at non-compensatory rates, it has the deleterious effect of forcing whatever customers that may remain with the LEC to subsidize the below-cost input prices and severely

handicap firms that represent a substantial proportion of the telecommunications industry.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

BY MS. MURPHY (Continuing):

Q I apologize, Dr. Duncan. Do you have a summary of your testimony?

A Yes, I do. I'm here today to explain why the Hatfield Model can't be used as a guide to TSLRICs. I want to make clear that my criticisms are based on Version 2.2.2, that is, the last, most recent release.

I basically have four large points. The first point is that the model has not been externally validated. And by that I mean that the model has not been used to produce results in a real world scenario to see how well it approximates things. I would point out that many companies are asked to review software to do business planning and the first thing that's asked is can this business planning model reproduce something where we know the answer. And if the answer is no, you just don't go any further. So the model has not been externally validated.

The second thing is that when it is compared to other models, such as BCM2 or the CPM, the Cost Proxy Model, the numbers are quite a bit different. So, for example, BCM2 gives numbers of about $25.45 or 44 cents in Florida under the default, that if you just use what they give you, you get $25, which is more than double what Hatfield gives. And if you use GTE data you get about 33.61. So, if you compare it with other models of a type, you get numbers that are quite, quite

different.

The model is very complicated. It has millions of equations, millions of data points. And the question is how do you go about evaluating something like that if you can't externally validate it. So, what we tried to do is we tried to look at three things. First, does it satisfy internal validity checks. For example, first degree homogeneity. First degree homogeneity isn't as difficult at it seems. Let me use an example. If you go to the store and you buy a bunch of groceries at whatever prices each one of those things were, and on the way out for some reason all of the prices go up 10% and you get up to the front and somebody says how much is that bag of groceries going to cost you now relative to what it cost before, it's going to be 10% more because all of the prices went up 10%. That's all that homogeneity says. And in testing for it it's a little like picking up a calculator, pushing 2 + 2 = 4, not because you're interested in it, just because that's what you do when you test out a calculator, it if comes out 5.2, you say something is wrong with this calculator and you look for another one. So that's one of the internal validity checks we look for.

The derivative property is a somewhat more complicated property, but it's something that a cost function should satisfy. It doesn't satisfy that. And that's Version 2.2.2 doesn't satisfy that; it isn't the earlier version that doesn't

satisfy that.

The input values are not GTE input values. Their sources are judgment often; they're not related to GTE Florida or GTE in any other state. They use simply the wrong inputs. And I'll mention a few things: The capital, the switch costs are too low. The shared percents seem too high. The drop wire investment is too low, things like that. So, the inputs don't seem to be correct.

And, finally, the model is built on faulty assumptions from the beginning. It's not dynamic. It doesn't take into account the kinds of costs that a firm that's going to be in a competitive industry would face. It doesn't attempt to try and do that. It does not and cannot account for growth. And so the underlying structure is faulty as well.

So it hasn't been externally validated, and then on these internal criteria and other criteria, it seems to be flawed as well. So, I simply can't support it.

Finally, in terms of its vaunted openness, I have not found it open at all. Many of the cells in fact are locked. And when you lock the cells, you turn off the auditing procedure. The auditing procedure allows you to trace through how an input value is used throughout the different spreadsheets. Now it is true that if you know where you're going to end up in one of these million or so equations, sets of equations, somebody could say, well, you could track this

backwards; if you know what the result is, you might be able to track it backwards and look and find where it was used, but you can't go from the front part and figure out where it's going to be used next. You would literally have to check through each one of those million cells to find it. And even then you can't find it all because sometimes they use what are called ranges. So you want to look at Cell 14; if Cell 14 is used in a range statement that goes from C-1 to C-15 and Cell 14 is in the middle there, you're never going to pick up where it was used. Is it not user friendly. Is it very difficult to figure out what's going on. The equations are not documented. The lines of code are not documented. It's a very difficult thing to use. And with that I'll close.

MS. MURPHY: GTE tenders Dr. Duncan for cross examination.

CHAIRMAN CLARK: Mr. Melson.

CROSS EXAMINATION

BY MR. MELSON:

Q Good afternoon, Dr. Duncan. I'm Rick Melson, representing MCI.

A Good afternoon, Mr. Melson.

Q You've only been with NERA since April of 1996; correct?

A That's correct.

Q And prior to that you were with GTE Labs for about

nine years?

A That's correct.

Q And since you've have been at NERA, would you estimate that 90% or more of your work has been done for GTE?

A That would be a reasonable estimate.

Q You have not reviewed any of the cost studies filed by GTE in this proceeding; is that correct?

A That's correct.

Q So you haven't had the responsibility for verifying any of Mr. Trimble's numbers or the validity of any of his models?

A That's correct.

Q In your Direct Testimony at page 2, you state that your particular expertise includes the formulation, specification, estimation and testing of cost models; is that correct?

A That's correct.

Q Now do you recall previously testifying before this Commission in March of this year in the unbundling proceeding for GTE?

A I remember that I was here. I don't remember exactly what we were talking about.

Q Would you agree with me in that docket that when you described your background and experience, you didn't even mention cost models?

A I frankly don't remember.

Q In fact, your role at GTE Labs was to direct academic quality research and econometrics game theory and the empirical and policy oriented aspects of industrial organization; is that a fair summary of what you did at GTE Labs?

A Oh, yes, and that certainly includes cost analysis.

Q Let's turn if we could just for a minute to Exhibit 47.

A yes.

Q At page 17 of that you say that the Hatfield Model underestimates the cost of capital; do you recall that? Sort of big black letters at the bottom of the page.

A Yes.

Q And I believe you told me during your deposition that an appropriate cost of capital would be about three times higher than what was used in Hatfield or in the 30% plus range; is that correct?

A I could imagine using one that much higher, yes.

MR. MELSON: That's all I've got. Thank you, Dr. Duncan.

CHAIRMAN CLARK: Mr. Lemmer.

MR. LEMMER: AT&T has no questions.

CHAIRMAN CLARK: Staff.

MS. BARONE: Thank you.

CROSS EXAMINATION

BY MS. BARONE:

Q Dr. Duncan, Staff is bringing you a copy of your deposition transcript dated 10/1/96.

Sir, prior to today did you have an opportunity to take a look at your deposition transcript?

A Actually just very briefly this morning.

Q Based on your review, do you have any corrections or changes to make to your deposition transcript?

A Based on that quick look, no.

MS. BARONE: Madam Chairman, Staff requests that GMD-2 be marked for identification at this time.

COMMISSIONER DEASON: Let the record reflect that Madam Chairman has stepped out for just a moment and I will assign Exhibit No. 48 to that document.

MS. BARONE: Thank you, sir.

(Exhibit No. 48 marked for identification.)

MS. BARONE: And with that, Staff does not have any --

COMMISSIONER KIESLING: Excuse me. Hello. I couldn't make my mike work. Does that include an errata sheet if he wants to file one, since he hasn't had a chance to give it a thorough review.

MS. BARONE: Certainly. If you would like to provide an errata sheet, you may do so after today.

WITNESS DUNCAN: Okay. Thank you.

MS. BARONE: And the record will reflect an errata sheet if you file one.

WITNESS DUNCAN: Thank you.

MS. BARONE: And with that, Dr. Duncan, Staff does not have any further questions.

COMMISSIONER DEASON: Redirect.

MS. MURPHY: I just have two quick questions on redirect.

REDIRECT EXAMINATION

BY MS. MURPHY:

Q Dr. Duncan, if you could turn to page, I believe it's page 3 of your testimony, line 18, and that's on Docket No. 960980.

A Yes.

Q Line 18, I'm wondering if you had a change. I asked you previously if you had any changes to your Direct Testimony that had been submitted. And my question for you is this: Where it says "$6 per line per month," did you want to make a change to that?

A I'm sorry, I think you have the old exhibit.

Q I do.

A I'm sorry. I'm sorry. I have now succeeded in confusing myself. So I need to ask a question.

CHAIRMAN CLARK: Ms. Murphy, we'll go off the record for a minute and why don't you go over and get him on the right

piece of testimony.

(Brief pause.)

BY MS. MURPHY (Continuing):

Q I apologize. Dr. Duncan, did you have any changes you want to make to that line?

A Yes, I do. On line 18, there is a term that says "$6 per month per line" and it should read $9 per month per line," "per line per month."

Q Is that change consistent with the attached exhibit?

A Yes, it is.

Q Is it also consistent with the exhibit that was originally attached to that Direct Testimony?

A I believe the original testimony had a 6 in there as well, which I corrected at the deposition before giving the other one. This was a typo.

Q Thank you. My next question is this: Can you describe briefly your background with cost models?

A My Ph.D. program involved a lot of training in what was then a modern cost model theory. My first academic papers were primarily in cost, modeling costs, model specification cost estimation. I have a number of academic papers starting in the late '70's, early '80's and going to roughly 1990 on cost models and how to estimate them, how to formulate them. I've taught many courses on explicitly cost and production analysis and a number of my students, my Ph.D. students have

written dissertations on cost and production analysis and their dissertations quite often have been published as well.

Q Thank you. Can you also tell me in your Direct Testimony, the criticisms you have of the Hatfield Model, are they based on Version 2.2 Release 2?

A Yes, they are.

MS. MURPHY: Thank you. No further questions. And I would like to move the admission of Exhibit 47.

CHAIRMAN CLARK: Exhibit 47 will be admitted in the record without objection.

(Exhibit No. 47 received into evidence.)

MS. BARONE: Staff moves 48.

CHAIRMAN CLARK: Exhibit 48 will be admitted in the record without objection.

(Exhibit No. 48 received into evidence.)

CHAIRMAN CLARK: Thank you, Dr. Duncan.

Who's next?

MR. FUHR: Steel and Trimble.

CHAIRMAN CLARK: Steele and Trimble?

MR. FUHR: Yes, ma'am.

We're ready to proceed.

DIRECT EXAMINATION

BY MR. FUHR:

Q Mr. Trimble, would you state your --

CHAIRMAN CLARK: Let me ask a question. Have they

been sworn in?

MR. FUHR: No, they have not, I don't believe.

WITNESS TRIMBLE: No.

CHAIRMAN CLARK: Would you both please stand and raise your right hand.

DENNIS B. TRIMBLE

and

BERT I. STEELE

were called as witnesses on behalf of GTE Florida and, having been duly sworn, testified as follows:

CONTINUED DIRECT EXAMINATION

BY MR. FUHR:

Q Mr. Trimble, would you state your name for the record?

A (By Witness Trimble) My name is Dennis B. Trimble.

Q What is your business address?

A My business address is 600 Hidden Ridge, Irving, Texas.

Q By whom are you employed and what is your position with that employer?

A I am employed with GTE Telephone Operations as Assistant Vice President, Marketing Services.

Q Okay. Mr. Trimble, have you caused to be filed under your name Direct Testimony in Docket No. 960847?

A Yes.

Q And did you have attached to that Direct Testimony

four exhibits, DBT-1 through DBT-4?

A That is correct.

Q Did you also cause to have filed under your name Direct Testimony in Docket No. 960980?

A Yes.

Q And were there any exhibits attached to that?

A No, I do not believe there were.

Q Okay. Mr. Trimble, are there any changes or modifications to your Direct Testimony or the exhibits attached to that Direct Testimony?

A Yes, there are.

Q Would you identify what those changes or modifications are?

A Yes. There are two changes that are basically typos. The first one is on page 26, on line 1, and the statement is "as can be seen from Exhibit No. DBT-3." That should be "DBT-4."

On page 29, there are four word changes. The first one is on line 3, where it says "intrastates switched access." It should state "interstate switched access."

And similar along that line, on line 7, where it says "for intrastate switched access," that should be "for interstate switched access."

Likewise on line 9, the sentence begins "intrastate switched access." It should be "interstate switched access."

And consistent with that, on line 14, where it states "Commission as appropriate," it should say "FCC as appropriate."

The same changes need to be made on page 31. On line 11, it states, "GTE's intrastate switched access." That should state "GTE's interstate switched access."

And, similar, on line 13, "Would intrastate switched access" should be "Would interstate switched access."

In terms of the exhibits, we have a change in Exhibit DBT-3, it's on page 2 of 4. On item No. 7 where it states "service provider number portability" and just below that it says -- "simultaneous call capability," on October 2nd we provided an edit to those numbers or at least to the simultaneous call numbers and those were filed on October 2nd. So, for simultaneous call capability on that line, it should say "simultaneous call capability -- initial." The TELRIC for that should be $1.72. The contract rate in the column there, which is the rates we proposed should be $1.90, which replaces the 5.10 that's there right now.

We need to add another line just below that, which states "simultaneous call capability -- additional." And the TELRIC column for that should be $2.78. And we jump over to the contract rate column, that should be $3.05.

There is one additional minor change, which happens to be in DBT-4, actually page 3 of 3. There are two tables on

that page. And you will notice that they seem to both have the same title. The second page -- The second table, which has a column in it, the second column in it says "market share 10%," we need to erase the title that's currently there and substitute for that the title "ALEC margin opportunities."

That is all the changes.

MR. MELSON: Chairman Clark, might I inquire just a moment? My understanding is that as filed, Exhibits DBT-1 through 4 or, excuse me, 2 through 4 were confidential. I believe that GTE has now withdrawn that claim of confidentiality and I'd just like to make sure my understanding is correct before we go too much further.

MR. FUHR: That's correct.

CHAIRMAN CLARK: Okay. So no part of the exhibits attached to his direct testimony, which are DBT-1 through 4, is confidential?

MR. FUHR: That's correct.

CHAIRMAN CLARK: Okay.

MR. MELSON: And would the unredacted versions of those be found in that black binder that you handed out?

MR. GILLMAN: The same exact exhibit would not be. You should all have the confidential highlighted portions that we can declassify now as confidential.

MR. MELSON: Commissioner Clark, my concern is I've got them. I don't know if the Commission has them.

CHAIRMAN CLARK: Well, Mr. Melson, unless you're going to ask -- If you're going to ask questions on them, then we probably need them. If you're not, they will be part of the record.

MR. MELSON: At this point I may. I frankly don't know.

CHAIRMAN CLARK: Okay.

MR. MELSON: I may have questions on them. So, maybe at an appropriate time GTE could get some copies of those made.

CHAIRMAN CLARK: All right. Why don't we continue on. I think it's going to take us a while to get the testimony in and, meanwhile, if you would be looking at that, Mr. Gillman, I would appreciate it.

MR. GILLMAN: Yes, ma'am.

MR. FUHR: Thank you.

BY MR. FUHR (Continuing):

Q Mr. Trimble, did you also cause to be filed Rebuttal Testimony of 21 pages in Docket No. 960847 ?

A (By Witness Trimble) Yes, I did.

Q And did that rebuttal testimony have attached to it Exhibits DBT-5 through DBT-8?

A Yes, it did.

Q And, likewise, did you file Rebuttal Testimony in Docket No. 960980 of three pages?

A Yes, I did.

Q And is it correct that that Rebuttal Testimony there did not have any exhibits attached to it?

A That is correct.

Q Mr. Trimble, are there any corrections or modifications that you need to make to that Rebuttal Testimony or the exhibits attached thereto?

A No.

Q Mr. Trimble, if I ask the questions of you that are contained in the Direct Testimony and the Rebuttal Testimony that we have just referenced and I ask those questions of you today, would your answers be the same today?

A Yes, they would, except for very small immaterial factors that were submitted in my late-filed deposition exhibits.

Q Do any of those immaterial changes that you just reference affect in any way the prices that you are recommending?

A No, they do not.

MR. FUHR: Madam Chairman, I would ask that the testimony, the Direct and Rebuttal Testimony that we've just referenced, be inserted into the record as though read.

CHAIRMAN CLARK: That testimony will be inserted into the record as though read.

MR. FUHR: I think when we do our summary, Mr. Trimble is going to do the summary for the team. So I thought I would

just go to Mr. Steele at this point, go through the same basic background, if that's an appropriate way to proceed?

CHAIRMAN CLARK: Yeah. Let's mark the exhibits, though. DBT-1 through 4, attached to the Direct Testimony will be labeled as Exhibit 49 and DBT-5 through 8 attached to the Rebuttal Testimony will be labeled as Exhibit 50.

MR. FUHR: Thank you very much.

(Exhibit Nos. 49 and 50 marked for identification.)

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF DENNIS B. TRIMBLE

DOCKET NO. 960847-TP

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.

A. My name is Dennis B. Trimble. My business address is 600 Hidden Ridge Drive, Irving, Texas, 75015. I am employed by GTE Telephone Operations as Assistant Vice President - Marketing Services (Acting) and am representing GTE or "the Company" in this arbitration proceeding with AT&T.

Q. WILL YOU PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE?

A. I received a B.A. in Business in 1970 and an M.B.A. in 1973, both from Washington State University. In 1972, I became an Assistant Professor at the University of Idaho, where I taught undergraduate courses in statistics, operations research and decision theory. From 1973 through 1976, I completed course work towards a Ph.D. degree in Business at the University of Washington, majoring in quantitative methods with minors in computer science, research methods, and economics. I began my career with GTE in 1976 as an Administrator - Pricing Research with General Telephone Company of the Northwest ("GTENW"). Through 1985, I held various jobs with GTENW and GTE Service Corporation, almost all related to demand analysis, market

research, and/or strategic planning. In 1985, I was named Director - Market Planning for GTE Florida, Incorporated ("GTEFL") and in 1987, I became GTEFL's Director - Network Services Management. During most of 1988 and early 1989, I was also Acting Vice President - Marketing for GTEFL. From 1989 through most of 1994, I was employed by GTE Telephone Operations as Director - Demand Analysis and Forecasting. In October of 1994, I became Director - Pricing and Tariffs for GTE Telephone Operations and assumed the additional responsibilities of the Assistant Vice President - Marketing Services position in August, 1995.

Q. HAVE YOU PREVIOUSLY TESTIFIED ON BEHALF OF GTE?

A. Yes. I have presented testimony on behalf of GTE before the California Public Utilities Commission, the Florida Public Service Commission and the Hawaii Public Utilities Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THE DOCKET?

A. In response to AT&T's request for arbitration filed with this Commission, I will be sponsoring GTE's cost studies for:

(1) unbundled network elements and associated ordering/provisioning non-recurring charges ("NRC"s),

(2) interconnection elements,

(3) collocation elements, and

(4) service provider number portability ("SPNP") [SPNP is also know in the industry as interim number portability ("INP").]. I will also address GTE's proposed pricing for each category of elements. The economic rationale supporting the pricing policies employed by GTE in the development of its proposed rates for unbundled network elements is the subject of the Economic Presentation in this proceeding.

Q. PLEASE DESCRIBE THE MAJOR UNBUNDLED ELEMENTS GTE PROPOSES AND HOW THEY CAN BE USEFULLY COMBINED WITH THE ALTERNATIVE LOCAL EXCHANGE CARRIERS ("ALEC'S") SELF-PROVISIONED NETWORKS AND SERVICES TO DELIVER COMPETITIVE LOCAL EXCHANGE SERVICE.

A. GTE's major proposed unbundled services are:

- Unbundled Loops. The unbundled loop provides a voice-grade path between an end user and a GTE wire center. An ALEC may obtain this loop from GTE and connect it to a cross connect available at the end office through a collocation arrangement. The ALEC could self-provision the transport facilities from GTE's end office to the ALEC's own switching center. In such an arrangement the ALEC would provide, through its own

switch, all related switching services such as local usage, custom calling services, switched access service (both originating and terminating), and toll services. Today, most of these are high-margin services which provide GTE with significant contributions (revenues minus costs) to cover its common costs and overheads, thus enabling GTE to support the level of investment infrastructure necessary to operate as a carrier of last resort ("COLR") and achieve the Commission's public policy objectives (e.g., universal service).

GTE is also offering loop conditioning services for unbundled loops that assure that desired loops have the technical capability to handle enhanced end user services (e.g., ISDN, switch data).

- Unbundled Port. The unbundled port provides access to switching services from a GTE switch to be used with an ALEC-provided loop. This element would apply in areas where ALECs have loop facilities but do not have a local switching center in service. In this situation, the ALEC will cross connect its loop with GTE's switch through a collocation arrangement. Through the port, the ALEC can obtain access to both the local switching capability of GTE's switch (e.g., local calling, switch features) and the

capability to route calls from the trunk side of the switch (e.g., switched access, toll service, E-911 service, directory service, etc.). The functionality of the switch (e.g., local calling, switch features) will be purchased from GTE at its resale rates.

- Network Access Cross Connection ("NACC"). The NACCs are used to facilitate the physical delivery of a loop from GTE's main distribution frame to the ALEC's collocated facilities. GTE has elected to combine the NACC with the local cross connect facility (since they are always used together) and refer to this joint facility as a network access cross connection [NACC is also referred to as Expanded Interconnection Service Cross Connect ("EISCC").].

- SS7 Interconnection. SS7 interconnection allows an ALEC to connect to GTE's SS7 network at a Signal Transfer Point ("STP"). This connection enables ALECs to exchange SS7 messages without providing the underlying SS7 network. It also provides access to database services (e.g., Database 800 Carrier Selection Service and Line Information Database ("LIDB")). This interconnection will also support efficient call setup and delivery of SmartCall™ services without first connecting to a GTE switch. Because there is such a vast array of possible services provided

with SS7 interconnection, the Company proposes that interconnection arrangements be provided subject to negotiated contracts. With negotiated contracts, agreements can be customized to meet the specific SS7 requirements of each ALEC. These contracts would reference the signal links and STP ports currently tariffed in the GTOC Tariff FCC No. 1.

COST STUDIES

A. UNBUNDLED NETWORK ELEMENTS

Q. WHAT COSTING PRINCIPLES DID GTE EMPLOY IN DEVELOPING ITS TOTAL ELEMENT LONG-RUN INCREMENTAL COST ("TELRIC") STUDIES?

A. Exhibit No. DBT-1 to this testimony contains a complete description of the costing principles used by GTE to develop its TELRIC estimates for unbundled network services (Tab 1 of "GTE's Cost Submission" in this proceeding also contains the discussion on GTE's costing methods and models.).

Q. WHAT COST STUDIES HAS GTE FILED IN THIS PROCEEDING?

A. GTE's Cost Study Submission contains TELRIC estimates for certain "network elements" as well as Total Service Long-Run Incremental Cost ("TSLRIC") estimates for select bundled "services." The Company has provided TELRIC estimates for the

following elements:

- Network Interface Device ("NID"): Basic and 12X
- Loops: 2-wire and 4-wire
- Local Switching
  - Ports: 2-wire analog and DS-1
  - End Office Switching: Originating and Terminating
- Tandem Switching
- SS7 Signal Links: 56kb and DS-1
- SS7 Signal Transfer Point ports
- Transport: Common and Dedicated

Collocation element costs studies were also provided for:

- Network Access Cross Connection: DS-0, DS-1, and DS-3 levels
- Physical Engineering Fee
- Building Modification Charges
- Partitioned Space Rental
- DC Power
- Cable Space Charges.

Service Provider Number Portability cost studies:

- Remote Call Forwarding per number ported
- Simultaneous Call paths

In addition, TSLRIC studies were performed and submitted for other services that the Company offers (e.g., basic local service, vertical services, toll, and switched access). These studies were a component to the derivation of the Company's total "forward-looking" costs for all its services. This total cost estimate helped the Company to estimate its "forward-looking" common costs.

GTE's Cost Study Submission also includes its "Avoided Cost Study" analysis which is a primary component of its recommended resale rates. This study and the resulting recommended price levels for resold services is the topic of GTE's Resale/Avoided Cost Presentation.

Q. AT&T ASSERTS THAT GTE'S "COMMON" COSTS ARE EITHER NONEXISTENT OR DE MINIMIS. DO YOU AGREE WITH AT&T'S ASSERTION?

A. No. As shown in Exhibit No. DBT-2, the annual common costs for GTE's operations in this state exceed **$ **million, which translates to about ** %** of GTE's total revenues. AT&T's proposal does not allow for recovery of these costs.

B. NON-RECURRING CHARGES

Q. HAS GTE IDENTIFIED THE COST OF SERVICE ORDERING AND SERVICE CONNECTION ACTIVITIES REQUIRED IN CONNECTION

WITH THE OFFERING OF WHOLESALE SERVICES?

A. Yes. GTE has included in its Cost Submission package (Tab 9) a study for wholesale service ordering and service connection activities ("the NRC study").

Q. PLEASE DESCRIBE THE PURPOSE OF GTE'S NRC STUDY.

A. The purpose of the NRC study was to determine the non-recurring costs of service ordering and service connection activities required to provide wholesale services using a newly-developed wholesale service provisioning process. The study was designed to determine these costs for four wholesale service provisioning functions: unbundled loop, unbundled port, resale, and service provider number portability.

Because the wholesale provisioning process has not yet been established, the time and motion studies typically used to collect actual study data were not available. Instead, the study was conducted based on a planning model developed by the GTE Telephone Operations Open Market Transition ("OMT") Team.

Q. PLEASE DESCRIBE THE OMT TEAM'S PLANNING EFFORTS.

A. A variety of subteams comprised the OMT team. The Business Process and Systems Support subteam was charged with designing the processes needed for GTE to offer unbundled network elements and resale services, both on an interim and a

long-term basis. These processes included ordering, provisioning, installation, maintenance, repair, and billing.

Q. WHY ARE THESE PROCESSES DIFFERENT FROM GTE'S EXISTING RETAIL PROCESSES?

A. Fundamentally, these processes differ from GTE's existing retail processes because GTE is serving a different customer set -- ALECs rather than individual end user customers. The presence of an intermediary ALEC changes systems and procedures designed to serve end users.

First, GTE is required to obtain and maintain a different and new set of account level data with respect to its customer, the ALEC, versus its end user customer, e.g., record of a valid Certificate of Public Convenience and Necessity ("CPCN"), billing arrangements, contact persons, etc.

Second, processes and procedures for coordinating end user customer information with the ALEC must be established to meet GTE's requirements necessary to enable installation, repair and other aspects of service.

Third, GTE must maintain multiple accounts per ALEC end user customer, rather than the single account maintained per GTE customer. This will include the ALEC account, an end user

account for peripheral processes which cannot be handed over completely to the ALEC (e.g., E-911 data entry, maintenance, and repair), and a residual account for any retained GTE services (e.g., casual intraLATA and interLATA billing, directory advertising, voicemail, etc.). GTE must also modify its billing procedures to render individual account level detail as well as a summary bill to the ALEC.

Finally, GTE must train all of its personnel in the new procedures and ensure that the systems will function smoothly in a resale as well as a retail environment.

Q. HOW DID THE BUSINESS PROCESS AND SYSTEMS SUPPORT SUBTEAM GO ABOUT DESIGNING THESE NEW PROCESSES?

A. The subteam was composed of 35 to 40 individuals from the functions and departments within GTE which would be affected by the new processes. These included subject matter experts from each of GTE's three lines of business--consumer, business and carrier--as well as network operations (engineered and non-engineered provisioning, installation, dispatch, and repair), database administration, billing and training functions. These individuals developed scenarios for the ordering, repair, maintenance and billing functions which would be needed in the resale environment, determined the need for additional or modified

systems and functions, and developed and analyzed process flows for all scenarios.

The subteam determined which workgroups would be impacted by the new processes, and developed estimated work times for each function identified in the process flows. Based on forecasted volumes of service orders, the subteam then allocated these forecasted volumes to the different workgroups to essentially develop a model worktime analysis of the functions and systems involved as part of the newly designed processes.

Q. WHAT FUNDAMENTAL INFORMATION WAS USED FROM THE SUBTEAM'S ANALYSIS IN THE DEVELOPMENT OF THE NRC STUDY?

A. Two fundamental sets of information were taken from the subteam's analysis. First, the analysis defined all of the work activities necessary for GTE to respond to all four types of Local Service Requests ("LSR"s) examined in the NRC study: new service, account change - GTE to ALEC, account change - ALEC to ALEC, and service change. Work times developed by the subteam were used in the NRC study to determine costs for all relevant work activities.

Second, because not all LSRs require all of the possible work activities, the analysis established assumptions regarding the

frequency of the need for each work activity. For example, the summary bill master order activity was assumed to be required on 5% of all LSRs.

These data from the subteam's analysis were used in estimating the costs of ordering and provisioning in the prospective wholesale service environment. In addition, planning assumptions underlying the subteam's analysis were carried forward through the NRC study.

Q. HOW WAS THE NRC STUDY PREPARED?

A. Service ordering and service connection activities were studied separately for each of the four wholesale provisioning functions I identified earlier; for the unbundled loop and unbundled port functions, four different types of LSRs were studied separately. For each type of LSR, work times for all relevant work activities were priced out at loaded labor rates, and activity costs were determined based on the frequency assumptions for each work activity. Total costs for the LSRs were calculated by summing the activity costs.

Q. BASED ON GTE'S ANALYSIS OF NON-RECURRING COSTS, WHAT WHOLESALE NRCS ARE YOU PROPOSING?

A. In general, charges have been designed to recover separately the costs of service ordering and installation activities, recognizing to

the extent possible any like functions required for various types of LSR activity. By structuring the NRCs in this way, common charges are established that apply to all types of ordering activities, simplifying administrative processes for both the Company and the ALECs.

The proposed NRC structure reflects the remaining differences in anticipated costs for various types of ordering activities, and enables a reasonable relationship between the service connection charges and the incurred costs of associated work functions on an order-by-order basis.

Service ordering and installation charges are proposed both for unbundled services and resale services.

Q. HOW WERE THE SERVICE ORDERING CHARGES FOR UNBUNDLED SERVICES DESIGNED?

A. These NRCs were designed to recover the costs of work functions listed in the NRC study under the heading "National Open Market Center" on a per-order basis. The Initial Service Order charge is based on the costs for the install, summary bill master, disconnect and all other ordering functions, plus system processing.

Separate charges are proposed for a Transfer of Service and for a Customer Service Record Search. The Transfer of Service charge will be administered as required by the type of LSR; a transfer of service charge is required on any change in service from GTE to an ALEC where GTE must continue end user billing on the account, for CPE or directory advertising, for example.

Customer service record research is performed at the request of the ALEC to obtain a summary of the services subscribed to by the end user. The Customer Service Record Research charge will be administered whenever account information is requested.

The Subsequent Service Order charge will be applied on LSRs requesting a service change on an existing account, and is designed to recover the costs of work functions listed in the NRC study under the heading "National Open Market Center" on a per-order basis for all service change requests.

Q. HOW WERE THE INSTALLATION CHARGES FOR UNBUNDLED SERVICES DESIGNED?

A. Installation NRCs were designed to recover the costs of work functions listed in the NRC study under the headings "SSCC", "FAC", "DAC" and "CZT". A separate Loop Facility Charge for outside facilities work by customer zone technicians will be administered when such work is required to complete LSRs for

unbundled loop services. The balance of the installation costs are recovered through installation charges on a per-line or per-port basis. These NRCs were developed using the assumption from the OMT subteam's analysis that an unbundled service order will contain, on average, five lines or ports. That is, installation costs were divided by five to develop the per-line or per-port installation NRC.

Q. HOW WERE THE NRCS FOR RESALE ORDERING AND INSTALLATION ACTIVITIES DESIGNED?

A. These charges were designed in essentially the same manner described for unbundled services. The installation charge was developed using the assumption from the OMT subteam's analysis that a resale order will contain, on average, three lines. That is, installation costs identified in the NRC study were divided by three to develop the installation NRC for resale services.

Q. WOULD YOU PLEASE EXPLAIN THE CIRCUMSTANCES WHICH WOULD CALL FOR APPLICATION OF THE PROPOSED RESALE NRCS?

A. Yes. There are two resale scenarios, which I will refer to as "new" and "conversion". A "new" resale service is one for an end user who establishes service within a GTE local service area, but chooses an ALEC reseller for local service. A "conversion"

represents the loss of an existing GTE retail end user to an ALEC reseller.

Since the anticipated GTE ordering activities required to complete the associated LSRs are the same, and since the installation charges will be applied only when the installation work is required (e.g., for "new" services) there was no need to distinguish between these two cases in the NRC study, nor in the proposed NRC structure.

PRICING

A. NON-RECURRING CHARGES

Q. WHAT NRC RATES IS GTE PROPOSING TO THE ALECS FOR SERVICE ACTIVITIES?

A. GTE's proposed rate structure and rate levels for NRCs are presented in Exhibit No. DBT-3.

B. UNBUNDLED NETWORK ELEMENTS

Q. WHAT RATES IS THE COMPANY PROPOSING FOR UNBUNDLED NETWORK ELEMENTS?

A. Exhibit No. DBT-3 also presents GTE's proposed rates for the various unbundled elements (Although the elements identified in Exhibit No. DBT-3 are priced as though they are unbundled

elements, GTE does not believe that all the elements in Exhibit No. DBT-3 are "network elements" under the Act.).

Q. ARE THE RATE "STRUCTURES" THE COMPANY PROPOSES FOR THE DESCRIBED UNBUNDLED NETWORK ELEMENTS CONSISTENT WITH THE GUIDELINES PRESENTED IN THE FCC'S FIRST REPORT AND ORDER?

A. Based on my understanding of the First Report and Order, there are three areas in which GTE's proposal is currently inconsistent with the FCC's Order concerning unbundled network elements:

(1) GTE is not proposing to establish (at this time) different rates for elements in at least three defined geographic areas to reflect cost differences (Section 51.507(f)). It would be premature to deaverage wholesale rates without also being able to deaverage retail rates -- these rates must be consistent with each other and move together.

(2) GTE has not proposed a Local Switching Capability element (Section 51.319(c)).

(3) GTE has not developed nor proposed rates for unbundled Operations Support Systems ("OSS") functions (Section 51.319(f)).

Q. WHAT IS THE BASIS UPON WHICH THESE UNBUNDLED NETWORK ELEMENT RATES WERE DEVELOPED?

A. The procedure employed by the Company along with the economic (and practical) rationale supporting the procedure are the topic of Company's Economic Presentation in this proceeding. Based on the procedures prescribed in the Economic Presentation, the development of the specific rates for each element presented above will be described in the following testimony

1. Unbundled Loops

The basic unbundled loop was priced at GTE's estimate of its Stand Alone Cost ("SAC"). This $33.08 estimate was not only supported by GTE's Cost Study Submission but also by GTE's analysis of the Benchmark Cost Model - Version II ("BCM II") [The following companies have taken an active role in sponsoring BCM: Sprint, MCI, US West, and NYNEX. See "Benchmark Cost Model," submitted to the FCC, CC Docket No. 80-286, September 12, 1995. BCM II development has been led by Sprint and US West.] which provided another independent estimate of GTE's TELRIC for unbundled loops [The unbundled loop cost estimates resulting from the use of BCM II are presented in Tab 21 of GTE's Cost Study Submission.].

2. Unbundled Ports

The basic ports were priced at GTE's estimates of the TELRIC for each element plus a minimal amount of contribution to the Company's common costs (approximately 10%).

3. Unbundled Cross Connects

These elements were also priced at GTE's estimates of the TELRIC for each element plus an incremental amount of contribution.

4. Transport, Multiplexing and SS-7 Services

All of these network elements were priced at existing Facility for Intrastate or Facility for Interstate Access Tariff rates, as appropriate.

Q. YOU MENTIONED THAT YOU HAVE BASED YOUR PRICING OF UNBUNDLED LOOPS ON THE METHOD DESCRIBED IN THE ECONOMIC PRESENTATION MATERIAL AND GTE'S ESTIMATE OF STAND-ALONE COSTS. COULD YOU EXPLAIN HOW YOU UTILIZED THIS METHOD TO DEVELOP YOUR PROPOSED RATE LEVELS?

A. As discussed in the Economic Presentation and supported by this testimony, GTE's proposed rate levels utilize the TELRIC of the network element as a price floor. By using the methods described

in the Economic Presentation, I arrived at a "reasonable allocation of forward-looking common costs" to be added to each element's TELRIC to determine GTE's proposed price level.

Q. HOW HAVE YOU EVALUATED THE REASONABLENESS OF THE COMMON COSTS RECOVERED IN YOUR UNBUNDLED LOOP RATES?

A. In addition to the pricing rules described in GTE's Economic Presentation, I utilized three basic criteria to assure myself of the overall reasonableness of GTE's proposed unbundled loop rates. These are:

(1) an evaluation of the relationship of GTE's unbundled loop TELRICs to their respective Interstate special access (special access is a "functionally" equivalent service to an unbundled loop) rates;

(2) the overall (looking at all services, both wholesale and retail) GTE average percentage contribution levels, above direct cost (I am defining direct cost here as TELRIC and/or TSLRIC), required to achieve full recovery of the Company's forward-looking common costs; and

(3) the "upper bound" loop price presented in the Economic Presentation.

Q. PLEASE EXPLAIN YOUR APPLICATION OF THE ECONOMIC PRESENTATION'S "UPPER BOUND" LOOP PRICE.

A. The "upper bound" loop price can be considered a price level that just preserves GTE's overall levels of contribution to common costs. If GTE were to propose an unbundled loop price above the "upper bound", it would theoretically be making more revenue contributions (and thus, potentially net income), than it does without the introduction of unbundled loops. Thus, GTE's pricing proposals for unbundled loops have a constrained ceiling, even if the "upper bound" price is below GTE's estimate of entrants' "Stand Alone Costs" for unbundled loops.

Q. WHY DID YOU RELY ON AN EVALUATION OF THE INTERSTATE SPECIAL ACCESS RATES IN DETERMINING THE REASONABLENESS OF THE COMMON COSTS RECOVERED IN YOUR UNBUNDLED LOOP RATES?

A. Special access elements (i.e., two-wire and four-wire special access/entrance facilities) are functionally equivalent to basic unbundled loops. I reviewed GTE's interstate rates to determine their appropriateness as a benchmark for GTE's unbundled loop rates. When this evaluation indicated that the interstate rate for a 2-wire facility was reasonable (above its TELRIC with some contribution to common costs and also below the estimate of "upper-bound" ceiling price), the current two-wire Interstate

Entrance Facility rate was proposed for the two-wire unbundled loop.

Q. IN THOSE CASES WHERE THE TELRIC EXCEEDED THE CURRENT INTERSTATE ENTRANCE FACILITY RATE, HOW DID YOU DETERMINE THE REASONABLENESS OF THE COMMON COSTS RECOVERED IN YOUR UNBUNDLED LOOP RATES?

A. When the current Interstate Entrance Facility rate was not a good indicator (i.e., below cost), the company relied on the TELRIC as a price floor and the "upper-bound" price as a ceiling for the unbundled loop rate. That is, if the TELRIC was above the current Interstate Entrance Facility rate, then this rate could not be a good indicator of the economic costs of the unbundled loop element. In those cases, the Company determined a mark-up to provide a reasonable contribution to common costs. The proposed rate in this instance provides minimal contribution when compared to the rate required to recover an equal percentage mark-up. Again, in no case do I propose a rate for an unbundled loop that I consider to be above the SAC of an unbundled loop.

Q. PLEASE EXPLAIN WHY YOU COMPARED GTE'S PROPOSED UNBUNDLED LOOP RATES TO A RATE DERIVED FROM AN "EQUAL PERCENTAGE MARK-UP" CALCULATION.

A. The FCC in its First Report and Order at paragraph 696 concluded that "... one reasonable allocation method would be to allocate

common costs using a fixed allocator, such as a percentage markup over the directly attributable forward looking cost." Although GTE disagrees with this methodology, we wanted to check our results against the FCC's proposal.

Q. HOW DID GTE COMPUTE ITS EQUAL PERCENTAGE (FIXED ALLOCATOR) MARK-UP RATE AS ADVOCATED BY THE FCC, AND HOW DO THESE RESULTS COMPARE WITH THE COMPANY'S METHODOLOGY?

A. As described in GTE's Economic Presentation, GTE computed the percentage that its total directly attributable forward-looking costs (i.e., TELRIC and TSLRIC) are of its total economic costs. This computation was performed using the data presented in Exhibit No. DBT-2 and resulted in a fixed allocator of ** %**; thus, the FCC would imply that one reasonable allocation of common costs for GTE would be to mark-up all services and network elements by ** %**, (price = TELRIC*(1 + Fixed Allocator)). The comparative results of this evaluation are presented in Exhibit No. DBT-3. As can be seen in Exhibit No. DBT-3, GTE's proposed 2-wire and 4-wire unbundled loop rates are all below the rates resulting from the FCC's fixed allocator procedure. But even though the FCC's methodology would result in higher rates for GTE than GTE's methodology, GTE does not advocate adoption of the FCC's methodology.

Q. WHAT PERCENT MARGIN CONTRIBUTION WILL GTE BE MAKING FROM ITS PROPOSED RATES FOR UNBUNDLED LOOPS?

A. Based on an average unbundled loop cost of **$ **, GTE will achieve an approximate ** %** margin above cost with its proposed $33.08 unbundled loop rate. We believe this is a reasonable contribution to the Company's common costs, since on the average, across all product offerings GTE must achieve an average ** %** margin above all TELRICs (directly attributable forward looking costs) to fully recover its "forward-looking" common costs.

Q. COULD GTE'S PROPOSED RATES FOR UNBUNDLED NETWORK ELEMENTS BE CONSIDERED "MAKE-WHOLE" RATES?

A. Absolutely not. The major contributor to this "not-make-whole" situation is GTE's proposed unbundled 2-wire loop price of $33.08. As presented in GTE's Economic Presentation material, the upper bound price (contribution preserving price) for an average business unbundled loop would be **$ **. The difference between the **$ ** and GTE's proposed rate of $33.08 represents a permanent loss of contributions to the Company; **$ ** "on the average" will be lost for every unbundled loop provisioned to an ALEC's business customers. If ALECs target business customers with above average usage characteristics, the losses in contributions that the Company will experience will greatly exceed **$ ** per unbundled loop.

As can be seen from Exhibit No. DBT-~~3~~ 4, this loss of contributions results from the loss of high margin services (toll, switched access, and vertical services) that will certainly be lost when an ALEC provides a GTE unbundled loop to a business customer. Exhibit No. DBT-4 presents similar data for GTE's average residential customers and presents the computed rates that GTE would be required to charge if it were to be made whole (**$ ** for business, **$ ** for residence, or **$ ** for an "average" unbundled loop), ignoring market realities. GTE's proposed unbundled loop rate of $33.08 is substantially lower than any make-whole rate.

It should be noted that the "upper bound" loop rate of **$ ** is the result of many decades of pricing services based on their perceived "value of service" along with the complementary outcome that revenue contributions from business customers should be used to keep residential rates low. GTE's current rate structure, as mandated by regulation, continues to provide incentives for the inefficient entry of competitors whose major objective will be to capture the above-market contributions that are used by the Company to support public policy objectives. ALECs will use these captured contributions to finance their entry into the local market.

Q. ASSUMING THE COMMISSION ACCEPTS GTE'S PROPOSED UNBUNDLED LOOP RATE, WILL SUCH A RATE PROVIDE REVENUE AND CONTRIBUTION OPPORTUNITIES FOR ALECS TO EFFECTIVELY COMPETE WITH GTE?

A. Yes, and the ALECs do not have to be as efficient as GTE for this to occur. Equally efficient entrants would be just as incented to enter the marketplace if GTE's unbundled loop rate were proposed at its "upper bound" loop price; but market conditions preclude this rate from being proposed. As illustrated in Exhibit No. DBT-4, the financial opportunities available to ALECs, in terms of their ability to earn additional contributions to their common costs and overheads, would equal the difference between any revenues GTE would have received from the end users (assuming the ALECs match GTE's retail rates) less the rate of GTE's unbundled loop and any self-provisioned elements.

At a $33.08 unbundled loop rate, ALECs should be highly motivated to attract GTE's business customers, whose revenue streams exceed **$ **. For illustrative purposes let's assume that AT&T obtains 10 percent of GTE's end user customers through the use of GTE's unbundled loop. Under this scenario, the annual revenue contributions available to AT&T, assuming its price and cost structures mirror GTE's, would be over **$ **million per year as shown in Exhibit No. DBT-4.

To look at it another way, GTE (on the average for combined business and residence lines) obtains approximately **$ ** contribution per month (The total contribution levels are presented in Exhibit No. DBT-4.); which provides for recovery of the Company's forward-looking common costs. From Exhibit No. DBT-4, one can compute that an equally-efficient ALEC (which we will assume AT&T is) should be able to generate approximately **$ ** in contribution from an average business customer. Actual contribution levels for ALECs should be larger since they are not likely to be targeting an average business customer, but more likely will be targeting high-volume business customers. In addition, by purchasing GTE's unbundled loop, ALECs will most likely not have any of the common costs that result from the provision of loops, thus it is likely that their level of common costs will be significantly below GTE's average per line amount (**$ **). Of course the ALECs' contribution gains are also GTE's contribution losses.

C. LOCAL INTERCONNECTION

Q. WHAT RATE LEVEL DOES GTE PROPOSE FOR THE TERMINATION OF LOCAL TRAFFIC?

A. Compensation for termination of local traffic should be based on cost plus a reasonable contribution. However, GTE is willing to negotiate a bill-and-keep arrangement, in the interest of expediting

the competitive process, with a mutual compensation provision if the traffic becomes "out-of-balance." GTE proposes to charge its intrastate switched access rates for all minutes terminated to GTE that exceed a "threshold of balanced traffic."

Q. WHY DO YOU BELIEVE THAT GTE'S CURRENT TARIFF RATES FOR INTRASTATE SWITCHED ACCESS ARE REASONABLE RATE LEVELS FOR LOCAL INTERCONNECTION?

A. Intrastate switched access rates are rates that represent our current wholesale offering to interexchange carriers ("IXC"). GTE has no desire to continually introduce new rate levels that vary by "class of wholesale customer" (e.g., ALEC versus IXC, etc). The current switched access rates have been blessed by the Commission as appropriate rates for wholesale switching elements, and with GTE's "bill-and-keep" proposal, these proposed rates would not be effective until traffic becomes "out-of-balance". The arbitration process must be cognizant of the impacts that the "arbitration decision" will have on GTE's entire non-ALEC product offerings (i.e., decisions in this proceeding should not exacerbate nor accelerate the arbitraging of GTE's existing tariffs).

Q. DO MUTUAL COMPENSATION AGREEMENTS CREATE ANY ADDITIONAL RATEMAKING ISSUES?

A. Yes. Traditionally, in instances where GTE has paid other Local

Exchange Carrier ("LEC"s) to terminate GTE-originated traffic, rate structures have been available that allowed GTE to recover those costs by levying charges to end users. Toll charges and Extended Area Service ("EAS") adders are examples of such rate structures. Historically, when GTE did not have a mechanism to levy charges to end users, GTE did not pay for the termination of its traffic. With mutual compensation, GTE's expenses will increase. Recovery of such costs will necessitate a rate structure that allows charges to end users (the "cost-causer") for originating such traffic. Incumbent LECs, as well as all other telecommunications providers, should have the option of implementing such end user charges. This may require charging all end users for all originating traffic (perhaps with a provision for the terminating customer to accept such charges).

D. SERVICE PROVIDER NUMBER PORTABILITY

Q. WHAT RATES ARE GTE PROPOSING FOR SPNP?

A. GTE's proposed rates for SPNP can be found in Exhibit No. DBT-3. The rate structure proposed by GTE includes a price per remote call number and a price per call path. Thus, each telephone number requested to be ported will pay the sum of the two charges. If an end user desires additional simultaneous call paths, then the per call path price applies to each requested simultaneous path. The prices for both of these rate elements

were set at GTE's TELRIC estimates with an approximate 10% contribution to common cost.

FCC's PROXY RATES

A. LOCAL SWITCHING ELEMENT

Q. THE FCC PROPOSED A RATE PROXY OF $.002 - $.004 FOR BOTH TERMINATION OF LOCAL TRAFFIC AND A LOCAL SWITCHING CAPABILITY ELEMENT. YOU HAVE PROPOSED GTE'S INTRASTATE (TER) SWITCHED ACCESS RATES FOR TERMINATING LOCAL TRAFFIC ON THE GTE NETWORK. WOULD INTRASTATE (TER) SWITCHED ACCESS RATES ALSO BE APPLICABLE FOR THE LOCAL SWITCHING CAPABILITY ELEMENT?

A. Absolutely not. First, GTE does not agree that local switching capability is a network element. And even if it were, the FCC's proposed proxy rate of $0.002 - $0.004 per minute would be inappropriate.

From review of testimony in Illinois and California proceedings, it appears that ALECs believe that the FCC's local switching capability element includes all of the switch's functionality, including line and trunk side ports, switching fabric, vertical

features and functions, and customized routing capabilities. If this is the case, the $0.002 - $0.004 rate is clearly inadequate.

GTE's TELRIC studies generate a cost for end office switching that is about **$ **. But this cost is applicable only to the switch fabric function alone, and does not reflect the costs of line or trunk side ports, vertical features and functions or customized routing capabilities. Also, there would be additional costs associated with developing appropriate systems and procedures to allow ordering, provisioning, administration and billing of the Local Switching Capability element since this element is not offered on either a wholesale or retail basis by GTE.

If GTE were to integrate all of the vertical features that its switches could provide into a "you get them all with switching" package, GTE's required price per minute of use would be astronomical. If each port came with a full complement of vertical services, the full TELRIC cost of the "free" vertical services could easily exceed $100 per month (see Tab 23 of GTE Cost Study Submission for the TELRICs of most vertical services), which could never be recovered with a $0.004 per minute of use switching charge. Even for a reasonable level of vertical services, prices for a local switching network element would have to be in the $0.03 to $0.05+ per minute range for the Company to recover its forward-looking costs.

B. UNBUNDLED LOOP PROXY RATES

Q. SHOULD THE FCC'S PROPOSED LOOP PROXY RATES , AS PUBLISHED IN ITS FIRST REPORT AND ORDER) PLAY ANY PART IN THE NEGOTIATION PROCEEDING?

A. No. The FCC's proposed proxies have no relationship to reality. For this state, the FCC's unbundled loop proxy price is $13.68. But GTE's 2-wire unbundled loop TELRIC is **$ **. A simple comparison of these two numbers illustrates that the FCC's proxy rate is significantly understated. Similarly, the FCC's price is also significantly understated when compared with the BCM II produced TELRIC [See Tab 21 of GTE's Cost Study Submission.] (** $ **).

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

GTE FLORIDA INCORPORATED

REBUTTAL TESTIMONY OF DENNIS B. TRIMBLE

DOCKET NO. 960847-TP

Q. PLEASE STATE YOUR NAME AND BY WHOM YOU ARE EMPLOYED.

A. My name is Dennis B. Trimble and I am the Assistant Vice President - Marketing Service (Acting) for GTE Telephone Operations ("GTE" or "the Company"). In that capacity I am responsible for, among other matters, analyzing the demand characteristics of GTE's regulated product offerings and developing costs, prices and associated tariff filings for all of GTE's regulated services, inclusive of tariff filing activity with the FCC. My experience and qualifications have been submitted as part of my Direct Testimony filed in this docket on September 10, 1996.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to explain why the Florida Public Service Commission (FPSC) should not give any consideration to using the default proxy rates proposed by the Federal Communications Commission (FCC) in its *First Report and Order* issued in CC Docket No. 96-98 on August 8, 1996. Specifically, I address four basic points: (a) to describe the nature

of the cost studies that GTE submitted in the FPSC's proceeding No. 950985-TP, and that are referenced in the *First Report and Order* (at ¶¶ 793, 808) and why such studies were misused by the FCC; (b) to describe the magnitude of GTE's estimates of total joint and common costs that have resulted from the procedures employed by the Company in the development of its various Total Service Long Run Incremental Cost ("TSLRIC") estimates as submitted in various state proceedings; (c) to compare the results of cost studies prepared using the FCC's prescribed methodology (i.e., Total Element Long Run Incremental Cost or "TELRIC") that GTE has completed with the FCC's mandatory proxy price ceilings which shows that the TELRIC costs are not covered by the proxy rates even before common costs are considered; and (d) to demonstrate generically the shortfall GTEFL will experience by comparing the revenues that would be obtained using the FCC's proxy prices from an average customer (average residence or business) service in GTEFL service area to both the revenues generated from elements priced at GTEFL's TELRICs and to current average per line revenues.

Q. HAVE YOU REVIEWED THE FCC'S *FIRST REPORT AND ORDER* NOTED ABOVE?

A. Yes. I have reviewed in detail the FCC's *First Report and Order* issued on August 8, 1996. Among other things, that order establishes a framework of national rules implementing the local competition

provisions of the Telecommunications Act of 1996 ("Act") and adopts default proxy ceiling prices that are to be used in an arbitration proceeding as the price for unbundled network elements and resold services unless a state regulatory agency has completed its review of studies that comport to the FCC's prescribed, new costing methodology (at ¶¶ 789-827).

Q. DID THE FCC PROPERLY CALCULATE THE PROXY RATES EVEN UNDER ITS OWN METHODOLOGY?

A. No. As the attached Exhibits DBT-6 and DBT-7 demonstrate, when GTE adheres to the FCC's prescribed costing methodology, the costs that result are much higher than the mandatory proxy ceiling prices. Specifically, GTE's loop costs average at least 50 percent larger than the FCC's ceiling price, and GTE's unbundled end office switching costs average at least two-and-a-half times the FCC's price ceiling of $0.004 per minute, even when all possible switching features and functions are not included. Moreover, as Exhibit DBT-7 shows, when GTE compares the revenues that would be obtained from the FCC's proxy prices to either the revenues from elements priced at the TELRICs computed by GTE or to current revenues per line, it is clear that a large gap exists. It is also obvious that the effective discount from the equivalent retail service price using the FCC proxy prices is much larger than the discount ceiling established by the FCC for resold services.

Q. PLEASE DESCRIBE THE FLORIDA COST STUDIES AND WHY THEY DO NOT SUPPORT THE DEFAULT AND PROXY RATES ESTABLISHED BY THE FCC.

A. The cost studies that GTE submitted in the FPSC's Docket No. 950985-TP were only intended to identify the TSLRIC cost of local loops (both bundled and unbundled) and end office switching. As described below, there are substantive differences between the methodology used in GTE's Florida study and the FCC's TELRIC methodology. The results of GTE's Florida study cannot in any way be construed to produce a result that approximates a TELRIC-based cost that would be appropriate for use in deriving a proxy cost ceiling.

The FCC has prescribed that the pricing of network elements shall be based on the TELRIC of the element plus a reasonable share of forward looking joint and common costs. *See* § 51.505. The FCC further defines a reasonable share of forward looking joint and common costs in the development of unbundled network element prices to depend on many factors including the Stand Alone Cost ("SAC") of the element, market demand characteristics, as well as the overall magnitude of the company's forward looking common costs. *First Report and Order* at ¶¶ 694, 695, 696, 698, 699.

GTE defines TSLRIC as well as "TELRIC" as the additional cost incurred by the Company to produce the entire output of a particular service or "element", holding constant the production of all other

services produced by the Company. While this definition is similar to the FCC's implied definition of TELRIC, the FCC has stated that many of the costs that are correctly defined as joint and common costs in the development of TSLRICs can be directly attributed to specific network elements in the development of TELRICs. *First Report and Order* at ¶¶ 678, 682, 694. Thus, the FCC's definition of TELRIC should result in cost estimates that are larger than the TSLRIC for the specific network function that is being studied.

Q. CAN YOU QUANTIFY THE MAGNITUDE OF GTE'S JOINT AND COMMON COSTS?

A. GTE's current TSLRIC/TELRIC methodology for services and unbundled elements includes the following expenses: (a) depreciation, (b) return on investment, (c) income taxes, (d) plant specific maintenance and repair, (e) central office land and buildings, (f) customer operations (*e.g.*, sales), and (g) miscellaneous fees and taxes (*e.g.*, ad valorem tax, gross receipts tax). GTE's TSLRIC/TELRIC methodology does not include the following expense items (they are considered common expenses to the Company): (a) plant specific expenses (*e.g.*, network support, general support, and general purpose computers), (b) plant non-specific expenses (*e.g.*, network planning, engineering), (c) general support assets (*e.g.*, furniture, office support equipment, company communications equipment, and general purpose computers), (d) land and buildings (other than central offices), (e) indirect labor, (f) corporate expenses,

and (g) other taxes and fees, such as local franchise taxes, federal superfund taxes, local and state business license and occupation taxes). It is not unusual for these expense categories to represent from 35% to 45% of the Company's total accounting costs.

The total amounts in these common cost categories are appropriately excluded from GTE's TSLRIC/TELRIC studies because GTE's USOA-based accounting system records do not contain sufficient information to directly attribute (if appropriate) any of these expenses to specific network elements, and/or there is not a cost-causative method to associate these to specific elements of the network. The USOA-driven accounts, which GTE has identified as representing common costs, might include many items that are, in reality, service (or element) specific. However, as I have previously stated, those costs cannot be separately identified because the USOA-based accounting system does not contain a level of detail sufficient to allow direct attribution of those costs to their appropriate service (or network element). Thus, the USOA-based accounting processes limit GTE from identifying any remaining costs that may belong in the FCC's definition of TELRIC. However, even if GTE possessed an elaborate (and expensive) managerial accounting system that facilitated the direct assignment (when appropriate) of these common costs to specific network elements, this capability would only result in a minor change in the level of GTE's "total" common costs. I believe that the

USOA accounts that GTE currently incorporate in its TSLRIC studies represent a vast majority of all directly assignable costs.

Paragraph 694 of the *First Report and Order* states: "Certain common costs are incurred in the provision of network elements. As discussed above, some of these costs are common to only a subset of the elements or services provided by the incumbent LEC's. Such costs shall be allocated to that subset, and should then be allocated among the individual elements of services in that subset, to the greatest possible extent" (*Emphasis added*). GTE's TSLRIC/TELRIC studies do not attempt to perform this allocation of common costs. Allocation of these common costs to specific products for recovery is accomplished through GTE's pricing activities, not through GTE's incremental costing activities. Thus, GTE's TSLRIC/TELRIC methodologies (as currently employed) will lead to incremental cost estimates that are likely to be substantially below what the FCC intended to be incorporated in the development of TELRICs. It is my belief that the FCC has relied upon benchmark prices (and/or costs), as filed in various states, that do not incorporate an allocation of common costs, and thus only represent the incremental cost of a network element and not the total, average cost of that element.

Q. DO GTE'S COST STUDIES INCORPORATE JOINT AND COMMON COSTS?

A. As I stated previously, the methodology GTE currently employs to develop its TSLRIC/TELRIC estimates does not incorporate significant levels of joint and common costs. These costs must be recovered through the pricing of services. For Florida, as submitted in my direct testimony (Exhibit DBT-2), GTE Florida's forward looking joint and common costs are approximately $500 million annually which equats to 65% of the total costs identified in GTEFL's filed TSLRIC/TELRIC estimates. (Thus, GTEFL's total economic costs could be recovered by pricing all network elements so that they achieved an average 65% markup over their TSLRIC/TELRIC estimates).

Q. HAVE YOU IDENTIFIED SPECIFIC ERRORS ASSOCIATED WITH THE FCC'S USE OF THE FLORIDA LOOP COST STUDIES?

A. In the development of its unbundled loop proxy price (ceiling price) for Florida, the FCC weighted the interim 2-wire unbundled loop rates for Bell South ($17.00) and United/Centel ($15.00) and the approved rate for GTE ($20.00) as set by the FPSC and computed a state-wide average price of $17.28 based upon the Florida figures. *First Report and Order* at ¶¶ 792, 793. The FCC assumed that the rates ordered by the FPSC were rational proxies for TELRIC plus a reasonable allocation of forward-looking common costs. But, GTEFL's approved rate of $20.00 provides only an insignificant contribution to common costs (approximately 2% above GTEFL's filed TSLRIC/TELRIC estimate and far below the average 65% that would be required in

Florida). The FPSC's order that prescribed GTEFL's $20.00 unbundled loop rate specifically stated "that GTEFL's rates for unbundled loops shall approximate TSLRIC" (Docket No. 950984-TP, Order No. PSC-96-0811-FOF-TP, page 31). There was no recognition of reasonable contribution to forward-looking common costs, as discussed by the FCC.

United/Centel's cost study for an unbundled loop was found by the FPSC to be inadequate to support the development of rates for an unbundled loop as the costs could not be identified as either LRIC or TSLRIC estimates. Based on judgment, the FPSC set an interim rate of $15.00 for United/Centel and also ordered United/Centel to complete appropriate cost studies (Docket No. 950984-TP, Order No. PSC-96-0811-FOF-TP, p. 32). The FCC assumed that the $15.00 rate set by the FPSC is a reasonable depiction of United/Centel's TELRIC plus "reasonable allocation of forward-looking common costs" as is required by § 51.505(a)(2). But as noted above, in setting loop rates the FPSC did not include any reasonable contribution to forward-looking common costs.

Likewise, the FPSC found Bell South's filed cost studies for unbundled elements to be deficient which led the FPSC to set an interim rate of $17.00 for Bell South's unbundled 2-wire loop. Bell South was also ordered to file cost studies to support the

development of a permanent unbundled loop rate (Docket No. 950984-TP, Order No. PSC-96-0444-FOF-TP, p. 19).

To meet its own criteria, the FCC's proxy prices should be constructed to reasonably reflect statewide average TELRIC plus a "reasonable allocation of forward-looking common costs." However, in the development of Florida's proxy price for unbundled 2-wire loops the FCC relied on FPSC ordered rates. Of the three rates used by the FCC, only GTE's rate had any accepted cost support. Moreover, even GTE's rate did not contain any reasonable contribution as toward joint and common costs as required under the FCC's own pricing guidelines. § 51.505 The FPSC's ordered rates were intended to have little or no contribution above TSLRIC. When this fact is combined with the fact that TELRIC should be higher than TSLRIC (*First Report and Order* at ¶ 678), the obvious conclusion is that the proxy ceiling of $17.28 that the FCC found the studies produce for Florida is too low and that it cannot be construed to be an estimate of TELRIC plus a "reasonable allocation of forward-looking common costs" as is required by § 51.505(a)(2). But the FCC did not use this rate. Instead, its proposed proxy ceiling rate for Florida of $13.68 is apparently calculated from another model using the unweighted approved Florida rates as a scaling factor. (*Id.* at ¶ 794) The FCC's proxy ceiling for unbundled loops in Florida can only be considered arbitrary and inappropriate.

Q. HAVE YOU IDENTIFIED SPECIFIC ERRORS ASSOCIATED WITH THE FCC'S USE OF FLORIDA'S UNBUNDLED SWITCHING COST STUDIES?

A. For unbundled switching, the FCC defined the local unbundled switching element to encompass line-side and trunk-side facilities plus all of the features, functions, and capabilities of the switch. (*Id.* at ¶ 412) The line-side facilities include the connection between a loop termination at, for example, a main frame distribution frame (MDF), and a switch line card. The trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross-connect panel and a trunk card. The "features, functions, and capabilities" of the local switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks. It also includes the same basic capabilities that are available to the incumbent LEC's customers, such as a telephone number, directory listing, dial tone, signaling, and access to 911, operator services, and directory assistance. In addition, the local switching element includes all vertical features that the switch is capable of providing, including custom calling, CLASS features, and Centrex, as well as any technically feasible customized routing functions.

In the *First Report and Order* (at ¶ 803), the FCC discusses the estimates of the cost for end-office switching. The FCC also discusses the costs and rates for transporting and terminating traffic for interconnection purposes and concludes, that a range between

0.2 cents ($0.002) per minute of use and .4 cents ($0.004) per minute of use for unbundled local switching is a reasonable default proxy. (*Id.* at ¶¶ 805-809, 811) Thus, the FCC reasoned: "We, therefore, conclude that 0.2 cents ($0.002) per minute of use is a reasonable lower end of the price for end-office switching." (*Id.* at ¶ 812)

A review of the record relied upon by the FCC in determining the range of proxy rates for the unbundled local element defined in § 51.513 for local switching demonstrates that the FCC used incomplete data for the costs for end-office switching and local interconnection. The costs for the functions that support the rates for end-office switching and local interconnection simply do not match the description of the unbundled local switching element the FCC has laid out. (*First Report and Order* at ¶ 412) The cost studies on which the FCC relied measure only the incremental cost of end office switching for local interconnection. End office switching used for local interconnection only includes the basic switching function of connecting lines to trunks and trunks to lines. There is no cost or rate evidence in the record regarding the remaining features, functions, and capabilities of the switch that are included in the FCC's definition of the unbundled switching element. By relying on studies that take into account the cost of only a fraction of the switching element as defined in the rules, the FCC has established an unreasonably low proxy rate for the local switching element.

Q. CAN YOU EXPLAIN THE DIFFERENCES BETWEEN THE FCC'S TELRIC COSTS AND GTE'S STUDY FILED IN FLORIDA REGARDING UNBUNDLED END OFFICE SWITCHING?

A. For unbundled end office switching, the difference between the FCC's objective TELRIC costs and the GTE study filed in Florida are significant. These crucial differences are:

a. First and foremost, the GTE study did not attempt to determine the cost of unbundled end office switching that would be used by a requesting party to provide local exchange service. The study determined only the incremental costs associated with terminating an additional minute of use when two networks are interconnected for the purpose of exchanging traffic;

b. At the time GTE filed its study in Florida it did not have the procedures in place to identify the fixed costs associated with central office land and buildings. As a result, these expenses were not included in GTE's TSLRIC/TELRIC filed in Florida. This expense item, which is now included on a going-forward basis in GTE's TSLRIC/TELRIC studies, is a significant contributor to the average cost of end-office switching. Central office land and buildings expenses can account for up to 60% of the total TSLRIC/TELRIC of end-office switching; and

c. As discussed previously, GTE's procedure for estimating TSLRICs/TELRICs tends to exclude costs (which GTE has termed as joint and common) that properly belong in what the FCC defines as TELRIC/TELRIC. Again, this further supports the conclusion that GTE's TSLRIC estimates, as filed in Florida, are likely to dramatically understate what the FCC would term a TELRIC estimate, and would be far less than an estimate of TELRIC plus "a reasonable allocation of forward-looking common costs." § 51.505(a)(2).

Thus, the numbers on which the FCC relied upon are too low because they were based on GTE Florida filed estimates. *First Report and Order* at ¶ 808. By relying on such figures that did not include all of the costs included in the FCC's own TELRIC methodology, the FCC has picked a benchmark number for end-office switching costs that is significantly under-stated.

Q. CAN YOU PROVIDE AN ILLUSTRATION?

A. To illustrate this fact, an analysis prepared under my direction compares the FCC's proxy ceiling price for unbundled switching to the actual cost of providing that unbundled feature. This was done by selecting two typical local central office switches and determining the cost per year to operate those switches. The costs are for maintenance, support structures, capital costs, and an average distribution of overheads. These are all costs that the FCC has

specified as being appropriate for inclusion in unbundled elements. *See First Report and Order* at ¶¶ 682, 691. These current costs were reduced by 17% of total revenues based upon the FCC's estimate of costs that would be avoided if an ILEC were not in the retail business. (From the studies I have reviewed, I believe the costs avoided are less than this amount, but this amount was used to base the analysis on the FCC's own cost avoidance projection). The appropriate unit of analysis is the entire central office switch, because the FCC specified the party obtaining a unit of unbundled switching will also have access to all of the features and functions of the switch. The results of the switching cost analysis are shown on Exhibit DBT-5.

Q. DO THE FCC'S DEFAULT AND PROXY RATES COVER GTE'S TELRIC COSTS?

A. No. The switching cost analysis shows that, at a price per minute ranging from $.002 to $.004 (the FCC specified proxy ceiling price), the total revenue that would be generated by applying those prices to all local and access minutes of use falls well short of recovering the actual costs of providing the unbundled switching element (depicted by "% UNRECOVERED USING PROXY" line on Exhibit DBT-5). The shortfall results from a reliance by the FCC upon cost studies presented to, or decisions made by, state commissions that were designed to estimate the incremental cost of switching one minute of calling exchanged between two networks that are interconnected.

GTE's TELRIC cost studies are based upon the methodology prescribed by the *First Report and Order* (at ¶¶ 672-702). GTE first calculated the direct forward-looking cost of each network element. GTE then determined the common costs that could not be attributed to any particular element or sub-group of elements. According to the FCC's methodology, these latter costs are to be allocated to all network elements during the pricing process.

The *First Report and Order* specified (at ¶ 744) that the rate for unbundled local loops be a flat, per-month charge. Further, the FCC specified (at ¶ 794, Appendix D) the statewide average ceiling price that a state regulatory agency could adopt in an arbitration proceeding unless the state commission had completed its review of cost studies that comport to the FCC methodology. Exhibit DBT-6 shows the results of the GTE cost studies for loops in several states where GTE serves a large number of customers. The cost developed using a TELRIC methodology averages 50 percent larger than the FCC's proxy ceiling price. This difference clearly supports my conclusion that the FCC's loop proxy price is arbitrary and inappropriate because it is based upon a mixture of cost estimates for only the bare incremental cost of a loop, rather than being based upon a TELRIC methodology. Further, to assure a proper comparison, neither the proxy price nor the GTE TELRIC results described above include any allocation of common costs as the FCC's own cost methodology requires.

The *First Report and Order* specified (at ¶ 412) that the unbundled local switching network element is to include not only line-to-line and line-to-trunk "basic switching," but also all of the features, functions, and capabilities, such as a telephone number, directory listing, dial tone, signaling, and access to 911, operator services and directory assistance, all vertical features including custom calling and CLASS features, Centrex, and any technically feasible customized routing functions. The unbundled local switching rate structure is required to include "a combination of a flat-rated charge for line ports, which are dedicated to a single new entrant, and either a flat-rate or per-minute usage charge for the switching matrix and for trunk ports, which constitute shared facilities, best reflects the way costs for unbundled local switching are incurred." *Id.* at ¶ 810. Unless a state regulatory agency has completed its review of cost studies that comport with the FCC's costing methodology, state agencies are required (*Id.* at ¶ 815) to set the rate for unbundled local switching "so that the sum of the flat-rated charge for line ports and the product of the projected minutes of use per port and the usage-sensitive charges for switching and trunk ports, all divided by the projected minutes of use, does not exceed 0.4 cents ($0.004) per minute of use and is not lower than 0.2 cents ($0.002) per minute of use."

Exhibit DBT-7 compares the FCC's proxy price for unbundled local switching to the results of cost studies prepared by GTE using the FCC's TELRIC methodology. Shown are GTE's cost estimates for

three end office switching cost elements for a number of states where GTE serves a large number of customers. Those elements are: (i) a per minute cost to switch a call; (ii) a per line per month cost for the non-usage sensitive components of a switch (*e.g.*, line card); and (iii) a per line per month cost for a representative feature package. The cost element of a per line, per month cost for the feature package was chosen to comply with the FCC's mandate that a rate structure recover costs "in a manner that efficiently apportions costs among users." *First Report and Order* at ¶ 755. It is very important to note that the feature package selected for illustrative purposes does not include all of the features, functions and capabilities that a switch may be capable of providing. The package selected includes only many of the most commonly used features (*e.g.*, Call Waiting, Emergency Bureau Access, Speed Calling, Time of Day Routing). Also not included in any of the three cost estimates in Exhibit DBT-7 are the costs associated with a directory listing or the more esoteric switch features such as customized routing and Meet-Me Conference Bridging. The feature package used in calculating the cost for two states shown in DBT-7, Ohio and Wisconsin, did include additional, more advanced features, just to show the potential cost impact on a per minute basis.

To provide a logical comparison, GTE converted the two per line, per month cost elements into an equivalent per minute cost by dividing by the average switched minutes of use per month, including minutes

associated with both local and long distance calls. The result of this calculation is a composite TELRIC per minute cost that is three-and-a half times the FCC's upper price ceiling of $0.004, even when ignoring the two states with feature packages that include extraordinary features. These results confirm my conclusion that the FCC's local switching proxy price was based upon information that estimated the incremental cost of line-to-line or line-to-trunk basic switching, but did not, as the FCC's own methodology requires, include either the costs related to other switch features and functions, or common costs.

Q. IF THE DEFAULT AND PROXY RATES ARE IMPLEMENTED IN FLORIDA, WILL GTE EXPERIENCE A REVENUE SHORTFALL?

A. Exhibit DBT-8 compares the FCC's proxy price for a combination of unbundled local switching and an unbundled local loop (*i.e.*, the reassembled equivalent of local service) to both the results of a GTE Florida ("GTEFL") TELRIC study, and to current average revenues per line in Florida. To prepare this comparison, GTE derived the average monthly usage per line, including local and toll minutes of use, for an average of residence and business lines. This average number of minutes was multiplied by the FCC's proxy price ceiling of $0.004 per minute, and that switched usage revenue amount was added to the flat rate components that would also be needed to comprise reassembled local service (*i.e.*, a local loop and a Network Interface Device, or "NID"). GTE also derived the current revenues

per line for an average of Florida residence and business lines, including flat rate local charges, local and toll usage charges, and vertical feature charges. When the unbundled network elements of switching, a loop and a NID are combined to replicate local service, the revenues from those elements when priced at the FCC's proxy rates are approximately half of GTEFL's TELRIC for the combined service (Exhibit DBT-8, $18.55 compared to $37.31 per month). This comparison of price to cost understates the shortfall, because by definition TELRIC does not include an allocation of common costs. Further, the FCC's proxy prices would provide new entrants with approximately a 40 percent discount off GTEC's current average retail revenue per line in California (Exhibit DBT -8, $18.55 compared to $31.25 per month). Clearly neither the FCC proxy price nor the TELRIC methodology come anywhere close to providing revenues that cover GTE's cost of providing service.

Moreover, the 40 percent discount that results from the FCC proxy price cannot be squared with the FCC's interim wholesale rates. Section 51.611 of the FCC's rules requires that resale discounts should be "no more than 25 percent." Thus, the FCC's proposed requirements for its two pricing mechanisms (resale and unbundling) are totally inconsistent. The potential discount is significantly below the Company's costs and would result in GTE subsidizing competitive entry.

Based upon my and my staff's review of the FCC's *First Report and Order*, I am convinced that the FCC's proxy price ceilings for unbundled loops and local switching are significantly understated and in absolute conflict with §§ 51.319(c)(1)(C), 51.503 and 51.505.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF DENNIS B. TRIMBLE

DOCKET NO. 960980-TP

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.

A. My name is Dennis B. Trimble. My business address is 600 Hidden Ridge Drive, Irving, Texas, 75015.

Q. ARE YOU THE SAME DENNIS B. TRIMBLE WHO FILED DIRECT TESTIMONY IN DOCKET 960847-TP, THE ARBITRATION BETWEEN GTE AND AT&T?

A. Yes. That Testimony was filed on September 10, 1996.

Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?

A. Through that Testimony, I sponsored GTE's cost studies for (1) unbundled network elements and associated ordering/provisioning non-recurring charges; (2) interconnection elements; (3) collocation elements; and (4) service provider number portability. I also presented GTE' s proposed pricing for each of these categories of elements.

Q. DO THE COST STUDIES AND PRICING PROPOSALS YOU PRESENTED IN RESPONSE TO AT&T'S PETITION HOLD TRUE WITH REGARD TO MCI AS WELL?

A. Yes. These same costing and pricing principles apply to both AT&T's and MCI's requests for interconnection and unbundling. As such, it would be unduly repetitive to submit wholly new testimony with regard to MCI. I am therefore adopting my Direct Testimony filed in the AT&T arbitration as my Direct Testimony in this MCI arbitration. This approach is consistent with my understanding that the AT&T and MCI arbitrations have been consolidated for resolution in a single docket. To the extent GTE needs to address MCI-specific issues and positions, I will do that in my Rebuttal Testimony to be filed later.

Q. IN ADDITION TO YOUR TESTIMONY ON THE PRINCIPLES UNDERLYING GTE'S COST STUDIES, ARE YOU GTE'S EXPERT ON THE PARTICULARS OF THE COST STUDIES THEMSELVES?

A. No. GTE will sponsor another witness, Bert Steele, to answer specific questions on the details of the cost studies themselves.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

GTE FLORIDA INCORPORATED

REBUTTAL TESTIMONY OF DENNIS B. TRIMBLE

DOCKET NO. 960980-TP

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND TITLE.

A. My name is Dennis B. Trimble. My business address is 600 Hidden Ridge Drive, Irving, Texas, 75015.

Q. ARE YOU THE SAME DENNIS B. TRIMBLE WHO FILED REBUTTAL TESTIMONY IN DOCKET 960847-TP, THE ARBITRATION BETWEEN GTE AND AT&T?

A. Yes. That testimony was filed on September 24, 1996.

Q. WHAT WAS THE PURPOSE OF THAT EARLIER-FILED TESTIMONY?

A. Through that testimony, I explained why the default proxy rates established by the FCC are inappropriate for consideration by the Commission in Florida. Because that testimony also applies to MCI's petition for arbitration, I am adopting the rebuttal testimony filed in Docket 960847-TP in this docket as well. However, MCI also raised an additional issue which I address below.

Q. WHAT INTRASTATE ACCESS CHARGES, IF ANY, SHOULD BE COLLECTED ON A TRANSITIONAL BASIS FROM CARRIERS

WHO PURCHASE GTEFL'S UNBUNDLED LOCAL SWITCHING ELEMENT?

A. GTEFL will assess a per minute charge to the ALEC for all traffic switched by GTEFL (local, intraLATA toll, and interexchange - both intra- and interstate). For calls that "traverse" an unbundled local switching element (i.e., port) that was purchased by the ALEC and would incur access charges in today's environment, GTEFL will assess the local switching rate plus CCL and RIC. These charges should not be referred to "access charges;" rather they are local switching charges that provide continued contributions in lieu of access charges. They do not alter the ALEC's right/obligation to assess access charges. The ALEC will be responsible for assessing access charges on the IXC. Note that for calls that do not traverse an unbundled port, full switched access rates will apply.

The FCC notes that application of these elements is intended to provide continued contribution to universal service and local service rate support objectives. Therefore, application of the rates should continue at their currently tariffed levels and not at the diminished levels contained in the FCC *First Report and Order*. To do so would be ratemaking in an arbitrary and capricious manner, as no justification has been provided for applying only 75% of the RIC and GTEFL has not been provided any rate relief on those rates currently enjoying the benefits of contribution from access charges.

Q. HOW LONG SHOULD ANY TRANSITIONAL PERIOD LAST?

Application of these rate elements should continue until a "reassignment" of revenues associated with these elements to appropriate rate elements is fully addressed. This is likely to occur through access reform, universal service and some form of rate rebalancing. GTEFL fully supports efforts to rationalize all rates, including local and access. It is our belief that only when rates have been fully rationalized can the magnitude of the funding issues associated with public policy choices be identified and dealt with. Further, GTEFL believes that funding of these public policy choices must be accomplished in a competitively neutral manner.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

CONTINUED DIRECT EXAMINATION

BY MR. FUHR:

Q Mr. Steele, would you state your name for the record?

A (By Witness Steele) Bert Steele.

Q And by whom are you employed?

A GTE Telephone Operations.

Q And what is your position there and what is your business address?

A I'm the Manager of Pricing and Tariff Support. I'm at 600 Hidden Ridge, Irving, Texas.

Q Mr. Steele, have you caused to be filed Direct Testimony in Docket No. 960847?

A Yes.

Q And, Mr. Steele, was there attached to that Direct Testimony or appended to it two sets of exhibits?

A Yes, and I believe one of them was recorded yesterday as Exhibit 36, if my memory is correct.

Q I believe that is the right number, Exhibit 36. That's right, and that came in I believe during the testimony of Mr. Wellemeyer.

CHAIRMAN CLARK: Well, let me ask a question. I have Mr. Steele's -- I have Direct Testimony in 960980 and 960847. I don't have any attachments.

MS. CANZANO: I think, Chairman Clark, probably because those would have been confidential and you would

have -- Some of those were confidential at the time the testimony was filed and that's probably why you don't actually have the attachments right now. Subsequent to that GTE has, you know, withdrawn confidentiality. So Staff is currently making some public versions of that, so you can have the attachments.

MR. GILLMAN: The attachments to Bert Steele's testimony is Exhibit 36, as well as these five binders.

CHAIRMAN CLARK: So we don't have to identify them?

MR. GILLMAN: Yes, they need to be identified.

COMMISSIONER KIESLING: Could I go back to one point before that? All I have is one set of Rebuttal and it's in the AT&T docket.

CHAIRMAN CLARK: To be clear, I have Direct in the MCI docket and Rebuttal. I think I did say it was Direct, but what I have is Rebuttal. What should I have?

MR. GILLMAN: I think you're correct, Chairman Clark.

CHAIRMAN CLARK: So you have Direct in the MCI docket, which is 960980, and Rebuttal in the AT&T docket?

MR. GILLMAN: Chairman Clark, we're proposing to, with this witness, is to introduce into the record Exhibit No. 36, it's already been identified, as well as the five binder backup set, all of which is confidential, which I think should be marked as a separate exhibit at this time.

CHAIRMAN CLARK: All right. Okay. But that's all we

have to identify for him?

MS. CANZANO: I believe -- I have just been informed by Staff that what has been identified as BIS-2 contains the five binders that Mr. Gillman is referring to and that copies have not been provided, that they're too voluminous to be copied.

MR. GILLMAN: I think the main binder ought to be identified as one exhibit and the five binders ought to be identified as a second exhibit.

CHAIRMAN CLARK: What is the main binder?

MR. GILLMAN: The main binder is already identified as Exhibit 36.

CHAIRMAN CLARK: All right. I'm not going to identify that again. So that stays as 36.

Now what do you want me to identify as Exhibit 51?

MR. GILLMAN: These five binders, referred to as GTE Florida, TSLRICs Supplemental Materials, Books 1 through 5.

CHAIRMAN CLARK: Okay. GTE Florida's TSLRIC.

MR. GILLMAN: Supplemental materials.

CHAIRMAN CLARK: Okay.

MR. GILLMAN: Books 1 through 5.

CHAIRMAN CLARK: And they are confidential?

MR. GILLMAN: Yes, they are. And because of their voluminous nature, we haven't made copies and I don't expect there will be any specific questions on these binders.

CHAIRMAN CLARK: All right. We'll label that as Exhibit 51.

MR. FUHR: Thank you.

(Exhibit No. 51 marked for identification.)

BY MR. FUHR (Continuing):

Q Mr. Steele, do you have any changes or modifications to the testimony that we have just referenced?

A (By Witness Steele) I have one change.

Q And would you describe that change?

A Yes. There is a summary page that's in Exhibit 36, under tab 2. Let me turn to the second page and that tab will be consistent with Mr. Trimble's --

COMMISSIONER DEASON: Before we go any further, I want to -- Are we supposed to have Exhibit 36 either in a redacted form or in a confidential form? This is right, right here? Is this 36, the entire thing?

MR. HATCH: I believe so.

COMMISSIONER DEASON: Okay. Excuse me.

WITNESS STEELE: Yes, sir. Under tab 2 under Exhibit 36, the second page, needs to be a change to be consistent with what Mr. Trimble testified to a few minutes ago.

Halfway down the page, under the item No. 6, you'll see "remote call forwarding feature." And after that you'll see "simultaneous call capability." To be consistent with Mr. Trimble's testimony, would you please write "-- initial"

next to the word "capacity." Strike the cost amount there of "$4.67" and put next to it "1.72."

And also there's a "simultaneous call capability -- additional."

CHAIRMAN CLARK: Hamg on a minute, Mr. Steele. He's giving out numbers. Do you want him -- Do you want to provide those numbers otherwise?

MR. GILLMAN: Those particular numbers have not -- have been declassified.

CHAIRMAN CLARK: Okay. I'm sorry. Go ahead.

WITNESS STEELE: Yes, ma'am. Again, "simultaneous call capability -- additional", it's $2.78.

I believe that this same summary sheet is shown in Exhibit 51. This same change would apply there, again, under tab 2, the second page.

That concludes my changes.

BY MR. FUHR (Continuing):

Q Mr. Steele, with those changes, and if I were to ask you the same questions in your prefiled testimony that we have described, would your answers today be the same as those contained therein?

A (By Witness Steele) Yes, they would. I will note, however, that consistent with the request by Staff, as part of my late-filed exhibit requirements, I did do some analysis for 2-wire and 4-wire unbundled loop elements, which are contained

in Late-Filed Exhibit No. 8 for GTE. Those do not result in a change in my exhibits, however.

Q With that exception then, are the answers to your testimony today the same as they would be, as they were back then when you prefiled this testimony?

A Yes.

CHAIRMAN CLARK: Hang on a minute. What Late-Filed Exhibit 8 are we talking about?

MR. GILLMAN: Late-filed exhibit is one of the Staff exhibits.

CHAIRMAN CLARK: Is that something from a deposition?

MR. GILLMAN: Uh-huh, a late-filed exhibit from Mr. Steele's deposition.

CHAIRMAN CLARK: All right. Why don't we let him make that correction when Staff identifies them. All right. So at this point we are only inserting into the record the Prefiled Direct Testimony of Mr. Steele in Docket 960980 and the Prefiled Rebuttal Testimony of Mr. Steele in 960847.

MR. FUHR: Precisely.

MR. MELSON: Chairman Clark.

CHAIRMAN CLARK: And that testimony will be inserted in the record as though read.

Mr. Melson.

MR. MELSON: Just so I'm clear, back to Mr. Trimble's Direct Testimony that was inserted, I've got both the redacted

and unredacted copy, and I would like to clarify which version. I believe at this point there is no confidential information in it and that the unredacted version should go into the record.

CHAIRMAN CLARK: Yeah, that's Exhibit 49, as I understand it.

MR. MELSON: No, ma'am. The Direct Testimony itself, the Qs and As had some redacted pieces that I believe are no longer claimed to be confidential.

CHAIRMAN CLARK: Okay.

MS. CANZANO: And that was just distributed to the Commissioners, the unredacted version.

CHAIRMAN CLARK: And Mr. Melson wants the record to be clear that there is no portion now of Mr. Trimble's Direct Testimony that is confidential.

MR. FUHR: That is correct, Chairman Clark.

CHAIRMAN CLARK: Okay. I think all the testimony is in and the exhibits are identified.

MR. FUHR: I believe you are right.

GTE FLORIDA INCORPORATED

DIRECT TESTIMONY OF BERT I. STEELE

DOCKET NO. 960980-TP

Q. PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS.

A. My name is Bert I. Steele. My business address is 600 Hidden Ridge Drive, Irving, Texas 75038.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by GTE Telephone Operations as Manager - Pricing and Tariff Support. In this capacity I have responsibility for supporting incremental cost models and their application to support the pricing of network services for all of the GTE Telephone Operations including GTE Florida Incorporated ("GTEFL" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I have a Bachelor of Science Degree in Mathematics from Gannon University and a Master of Engineering Degree in Engineering Science from Pennsylvania State University. I joined GTE in 1972 with General Telephone Company of Pennsylvania. During the course of my career with GTE, I have held various valuation engineering, marketing, product management, and regulatory positions throughout GTE Telephone Operations including

GTE Hawaiian Tel. I assumed my present position in January of 1994.

Approximately fourteen of my twenty-four years with GTE have been in the area of developing incremental costs for pricing decisions. I have taken a number of incremental cost and pricing courses from AT&T, Bellcore, United States Telephone Association ("USTA"), GTE and the University of Chicago. For seven years I have been an active participant of the USTA Economic Cost Analysis Subcommittee and the USTA Training/Education Work Group responsible for promoting awareness, understanding and proper application of economic principles. At present, I am the chairman of the USTA Economic Analysis Training/Education Work Group.

Q. HAVE YOU TESTIFIED BEFORE THIS OR ANY OTHER STATE REGULATORY COMMISSION?

A. I have testified on behalf of GTE's telephone operating companies as an expert witness in the area of incremental costing before five state public utility commissions: California, Pennsylvania, Oklahoma, Wisconsin and Illinois.

Q. WHAT IS THE PURPOSE OF YOUR PARTICIPATION IN THIS PROCEEDING?

A. I am not introducing any substantive prefiled testimony at this time. My reason for participating in these consolidated dockets is to answer

specific questions about the cost studies sponsored by GTE witness Trimble. Because of the volume of the cost studies, it is more efficient to make available a separate witness with detailed knowledge of the studies, in the event the Commission, MCI or AT&T have questions that would reach beyond the costing principles and methodologies.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. It does.

GTE FLORIDA INCORPORATED

REBUTTAL TESTIMONY OF BERT I. STEELE

DOCKET NO. 960847-TP

Q. PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS.

A. My name is Bert I. Steele. My business address is 600 Hidden Ridge Drive, Irving, Texas 75038.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by GTE Telephone Operations as Manager - Pricing and Tariff Support. In this capacity I have responsibility for supporting incremental cost models and their application to support the pricing of network services for all of the GTE Telephone Operations including GTE Florida Incorporated ("GTEFL" or "Company").

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I have a Bachelor of Science Degree in Mathematics from Gannon University and a Master of Engineering Degree in Engineering Science from Pennsylvania State University. I joined GTE in 1972 with General Telephone Company of Pennsylvania. During the course of my career with GTE, I have held various valuation engineering, marketing, product management, and regulatory positions throughout GTE Telephone Operations including

GTE Hawaiian Tel. I assumed my present position in January of 1994.

Approximately fourteen of my twenty-four years with GTE have been in the area of developing incremental costs for pricing decisions. I have taken a number of incremental cost and pricing courses from AT&T, Bellcore, United States Telephone Association ("USTA"), GTE and the University of Chicago. For seven years I have been an active participant of the USTA Economic Cost Analysis Subcommittee and the USTA Training/Education Work Group responsible for promoting awareness, understanding and proper application of economic principles. At present, I am the chairman of the USTA Economic Analysis Training/Education Work Group.

Q. HAVE YOU TESTIFIED BEFORE THIS OR ANY OTHER STATE REGULATORY COMMISSION?

A. I have testified on behalf of GTE's telephone operating companies as an expert witness in the area of incremental costing before five state public utility commissions: California, Pennsylvania, Oklahoma, Wisconsin and Illinois.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My reason for participating in these consolidated dockets is to answer specific questions about the cost studies sponsored by GTE witness Trimble. Because of the volume of the cost studies, it is more

efficient to make available a separate witness with detailed knowledge of the studies, in the event the Commission, MCI or AT&T have questions that would reach beyond the costing principles and methodologies.

The cost study and associated workpapers are intended to be an exhibit to my testimony (designated as BIS-1) and moved into evidence at the hearing. However, because of the volume of this material and its highly sensitive and proprietary nature, it will be provided separately.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. It does.

MR. FUHR: Chairman Clark, I would request if we could or ask if the summary presentation by these gentlemen could be extended to a cumulative total of ten minutes. I think Mr. Trimble may deliver the whole presentation. That was the last game plan I had heard. But, together, they would take no more than ten minutes, if that's acceptable.

CHAIRMAN CLARK: Without objection. Go ahead, Mr. Trimble.

WITNESS TRIMBLE: Thank you. Good afternoon. The purpose of my testimony is basically three-fold. First was to present GTE's forward-looking TELRIC cost studies and the development processes behind those. Mr. Steele will be assuming as adopted those procedures and he will probably talk about those a little bit later. I also was responsible for developing GTE's recommended unbundled network element prices as proposed in this proceeding. The methodology we employed was to take the TELRICs and add to them a reasonable contribution of common costs, which is consistent at this point in time with the FCC's First Report.

In addition, my testimony also addressed the inappropriateness of the FCC's proxy rates. Now if we go through each of these three areas in a little bit more detail and we look at GTE's forward-looking TELRIC studies, they exhibit several attributes that companies, commissions and I believe commission staffs would find appropriate for studies to

be involved and employed in the development of unbundled loop rates.

From GTE's standpoint, there are three very critical pieces to these studies and the first piece is that they are actually studies of costs that the Company will actually incur in the future. They are not costs of a hypothetical company. They are the real cost estimates for GTE.

In addition, there's been several concerns that the cost studies may include retailing expenses for these wholesale elements. They include no retailing expenses. They are also very reflective of efficient operations.

If you take all this together, to a large degree GTE's TELRIC studies are conservative. We have overlaid nothing in them to reflect increased risks in the marketplace. And I believe Mr. Steele will have additional information to talk on this, on that fact.

In terms of the pricing side of my testimony, as I've already stated, the procedure was to take those TELRICs as developed by Mr. Steele and add a reasonable allocation of joint and common costs to them with the additional constraint that they should never exceed the stand- alone cost for that network element.

If we go through each of the items specifically, we would find loops, our loop prices were developed based on our estimates of stand-alone costs. This procedure is totally

consistent with the economic presentation that was presented under Dr. Sibley.

For most of the other items, for example, the NID, we priced at TELRIC plus 10% and we did the same thing for port. For tandem switching, we should say for tandem switching, dedicated common transport and SS7 type services, we elected to put forth FCC's proxy rates, which were GTOC 1 interstate rates.

For SPNP or interim number portability, that was priced at TELRIC plus 10%, a very minimal amount. And physical collocation, we have provided cost estimates for all of the elements that we believe the ALECs would be interested in.

Now on the loop side, to make us, to validate our assumptions, we also employed BCM2 in terms of running it with its defaults values and also with Company specific inputs to see if the cost characteristics or the cost numbers that result from that model were significantly different from our cost estimates and/or the price we proposed in this proceeding.

Now as we go through all of these activities and the costing side and the pricing side, it seems that one of the biggest issues is you have developed TELRICs, you're setting your price at TELRICs plus some unknown number. The unknown number, in our case, which we do know, the unknown number X is a highly controversial topic in this proceeding. The X we have created is directly related to our estimates of the Company's

total common costs. And I believe the presentation material in my testimony, plus also in Late-Filed Deposition Exhibit No. 13, I believe, provided two methodologies that the Company employed to estimate those numbers, which range in the 380 to 450 million dollar area. They are not small. They are quite significant.

The first methodology was to take 1995 revenues and basically subtract from them the sum of the TSLRICs and equate those to common costs. That results at this point in time with an estimate in the approximately 56% range for common costs as a percent of direct costs. The second methodology which was in my late-filed deposition exhibit, looked at USOA accounts, specifically those accounts that are excluded from our TSLRIC studies and/or TELRIC studies. And the results looking at those were that forward-looking common costs were approximately 47% of direct costs.

The issue here is not that those two numbers are exact. The real issue is that they are large. GTE's common costs are significant. And we truly believe, as any rational company should believe, that all customers, whether they be end user customers or ALECs, should contribute to those common costs and recovery of those common costs.

Now, last of all, the last piece of the testimony had to do with the use of the FCC's proxy rates, which I understand as of yesterday may be somewhat of a moot point. But I think

it's very interesting to take the illustration of the FCC's proxy rates as to the impact on the Company.

One of the methodologies people can use to evaluate the appropriateness of an overall pricing structure is to take that pricing structure and look at it from the standpoint if all services were purchased from it. So let me walk through for the FCC's proxies what the impact on revenues would be for the Company.

This assumes that ALECs employ the FCC's proxy rates, purchase unbundled loops and all switching from GTE. In essence, GTE is providing all the services but at wholesale rates. We're still installing all the lines, we're still doing all the switching.

If we look at Florida -- and I'll give you some numbers here very quickly -- which has approximately 780 minutes of use per line, which we can multiply out by the FCC's proxy rates of four-tenths of a cent to see what the switching component would be, we come up with the FCC's proxy rate for switching would be $3.15 per line.

The FCC has also recently introduced a port rate, which could be charged, at $2 per line. If we take the loop proxy rate for Florida, which was 13.68 and add that to the other two, we come to a total FCC proxy rate of $18.83 per line. For that $18.83, you get loops, switching, vertical services, in essence, GTE's full product line.

Now if we take that 18.83, say that's a monthly rate, multiply it by the number of switched lines the Company has, which is approximately 1.9 million, you come up with the FCC's proxy rates would generate total revenues for the Company of 436 million dollars.

For those same items, loops, switching and vertical services, GTE's 1995 revenues were 950 million dollars. The difference between the proxy and current revenues still with GTE providing all the services is 514 million dollars.

Employment of the proxies would in essence mean a 54% reduction in GTE's total revenues for those services. One could say 54% reduction for something that is being resold, in essence, seems a wee bit much. GTE agrees that is a wee bit much. Even the FCC's proposed rates for resale maxed out at 25%.

Now that demonstrated to me, and I think it should to most people, that the proxy rates did very little other than subsidize entry because GTE, no matter what anybody says, is a reasonably efficient Company. Fifty-four percent reduction just doesn't make sense.

CHAIRMAN CLARK: Mr. Trimble --

WITNESS TRIMBLE: Now if we look at --

CHAIRMAN CLARK: Mr. Trimble, you're already beyond ten minutes.

WITNESS TRIMBLE: I'm sorry.

CHAIRMAN CLARK: You need to tie it up.

WITNESS TRIMBLE: I'll have just one more minute, which goes if we take that as an indication, I believe AT&T and MCI are proposing rates that are even 40% lower than the FCC proxy rates. And that's pretty much the summary.

MR. FUHR: Chairman Clark, at this time I would tender Mr. Steele and Mr. Trimble for cross examination.

CHAIRMAN CLARK: Mr. Melson.

MR. MELSON: I would like to defer to AT&T. I think it would be more efficient.

CHAIRMAN CLARK: Okay. Mr. Lemmer.

MR. LEMMER: Good afternoon. Madam Chairman, thank you. I have a procedural question before we begin and I guess I ought to ask it of counsel. Who is going to answer my questions?

MR. FUHR: If there are questions that are specific to the underlying analysis that Mr. Steele did, he can answer, but I think Mr. Trimble will take the lead on it and in the event there is any question that needs to be handed off, if you were, Mr. Steele would answer it. Is that right, Mr. Trimble?

WITNESS TRIMBLE: That is correct.

MR. LEMMER: Thank you.

CROSS EXAMINATION

BY MR. LEMMER:

Q Let me ask you first to turn to page, Mr. Steele, turn

to page 8 of your Direct Testimony. Actually it might be more efficient if you will turn back to your Exhibit DBT-3, please.

A (By Witness Trimble) I'm there. I'm sorry. I missed your name.

Q Tom Lemmer.

A Thank you, Tom.

Q Now, my understanding is that this exhibit, and I'm looking now at the third page of this exhibit, lists a series of charges for nonrecurring services; is that correct?

A That is correct.

Q And can you tell me how these services that are described on this page line up with your current tariffed services for nonrecurring charges?

A I cannot tell you specifically. For retail rates, there are service order and charges and initial and additional. There's also trip charges for installation. I did not specifically match these exactly to the current retail rates. These are matched to the cost characteristics for wholesale services.

Q Now the rates that are specified on this third page of your Exhibit DBT-3, are they supported by tab 9 of Exhibit 36, which is tab 9 in the big black book on your table?

A Yes, they are.

Q Would you go to that tab for me, please.

MR. FUHR: I'm sorry; tab what?

MR. LEMMER: Tab 36. I'm sorry; tab 9 of Exhibit 36.

WITNESS TRIMBLE: Yes.

BY MR. LEMMER (Continuing):

Q Can you explain to me how tab 9 supports the prices that are shown on Exhibit DBT-3?

A (By Witness Trimble) Within tab 9 -- Maybe I should ask, do you have page A-133 Revised?

Q No, I do not.

A As part -- As part of GTE's October 2nd filing with the Commission, it provided several sheets that were entitled "GTE Wholesale Connection Service Charge Study," which reformatted the first sets of sheet, so you could see the components of each charge.

Q Okay. But what I'm asking you is looking at the prices that are on DBT-3, where is the detail support that ties into those prices?

A The detailed support, the pieces that make up each of the charges was provided in that October 2nd submission and from the October 2nd submission, you can map into specific pages that show exactly how those charges were created.

Q If you turn your attention to tab 9, and there are a series of pages up front in that particular tab. And I'm looking at the very first page. It's A-101; do you see that?

A A-101?

Q Yes, it's a number down at the bottom of the page,

very first page of tab 9.

A Yes, A-101.

Q Can you explain to me how the numbers that are reflected on this page relate to Exhibit DBT-3?

A Well, within, in terms of page 3 of 4 for wholesale charges, wholesale costs?

Q That is correct.

A The wholesale NRC study starts on page 132, A-132. Within tab 9, we look at the index. Tab 9 consisted of collocation, expanded interconnection, interim number portability, terminating local usage and nonrecurring charges was the last. One of the problems may have been that there was no blank blue sheet that separated each of those topics.

Q Now looking at the late-filed deposition exhibit that I've just handed, beginning at page 132 for a number of pages, this is support for the prices that are on the third page of your Exhibit DBT-3?

A These pages show how the numbers out of the cost study were put together to create the specific rates.

Q Now looking at this, I see numbers but I see no support for the specific numbers. Is this the entire documentation for the study?

A That is correct.

Q And by "this," I'm referring to this late-filed exhibit; that is the entire documentation?

A The late-filed exhibit was used, as I stated, to show how you take what was in tab 9 and map it into the specific charges that are on Page 3 of DBT-3.

Q Now the charges on that page of DBT-3, the third page that we've been looking at, are they TELRIC-plus based prices?

A No, most of those are at costs.

Q And what do you mean by "at costs"?

A They're based on the cost estimates for those functions. There was nothing added above those cost estimates.

Q So they reflect a TELRIC cost?

A I'm not sure what a TELRIC cost is for something that really has no future capital or future technology involved. These are basically labor costs.

Q So then what you're telling me is these are simply estimated costs based on the labor that will be expended?

A There's also some computer processing involved in some of these.

Q And by computer processing, do you mean application of certain software programs?

A Yes, I believe that is --

Q And were those programs made available?

A Made available?

Q Were they made available to MCI? AT&T? To the Staff?

A Those are internal programs, operation-type programs that facilitate line assignment, dispatch and repair. It's

basically running the, what I think everybody terms as the operation support systems internal to GTE.

Q And are those software programs proprietary?

A I do not know what somebody would consider those. I assume they are proprietary. They are huge systems. Service order entry systems, et cetera.

Q If you turn to pages 10 and 11 of your Direct Testimony, which is now Exhibit 49, I believe?

A Yes.

Q And these pages are discussing the calculations of the nonrecurring charges that we have been talking about; is that correct?

A That is correct.

Q Now looking at the top of page 10, lines 1 and 2, it discusses certain processes including ordering, provisioning, installation, maintenance, repair and billing; do you see that?

A Yes, I do.

Q Are those the various processes that were studied for purposes of determining the various nonrecurring charges?

A I believe that's a correct statement, yes.

Q Were historical costs, and by that I mean costs incurred in 1995 or previous, relating to these types of activities used in any fashion to develop your nonrecurring charges.

A No.

Q And why not?

A The study revolved around estimating the work activities required. If you consider current labor rates as embedded costs, then you could say they were embedded. These were, in essence, estimates of time to do functions priced out at current labor rates.

Q And these functions that you evaluated, did you evaluate them or assess them to be different than the functions you're currently providing say for ordering?

A They were assessed to be different in terms of work activities. As we all know, we currently do not process these orders. These were -- The time estimates were truly estimates based on professional knowledge within the Company.

Q An example, in ordering, was there any consideration taken in estimating the time that the intake regarding the delivery of wholesale will be different than it is when you're dealing with retail?

A I think that's a correct statement, yes.

Q So are you telling me that that was considered in developing?

A That was considered, based on estimates of the individuals responsible for the work functions, they developed their understanding of how our processes would work in the future and created time estimates for those.

Q And can you tell me what those assumptions were?

A I believe the assumptions for the time estimates are listed in the cost study itself for each of the activities in tab 9, starting at page 132 or 133. It will show you the specific function and the estimated amount of time that those folks responsible for this activity believe each one will take.

Q Now looking at these pages, I see various what I will call titles, such as "Service Order Entry Change Order." Is there any definition provided in your materials as to what that means?

A No, there was not. A lot of the definitions I believe are standard definitions you'd find in our retail tariffs.

Q So then you're relying on your tariff descriptions for the development of the time estimate?

A I believe the analysts assumed that for many of these activities it would be understood within the industry what they meant.

Q Even though you are now moving into unchartered waters by moving into a wholesale environment, the assumption was made there would be no change; is that correct?

A No, I'm saying the assumption is that the verbiage used for the descriptive verbiage is relatively standard verbiage in the retail type tariffs and that the ALECs would understand that type of verbiage.

Q Okay. Let's shift subject matters now and talk about the TELRIC methodology. If you would turn to -- Actually I

think it's appended to your testimony. It's the description of the TELRIC methodology, the written description that's appended as attachment to your testimony.

A This is attachment DBT-1?

Q That's correct.

A What I will do for these series of questions is basically turn them over to Mr. Steele, if that's appropriate, if that's okay.

Q Whoever can answer the questions is fine with me.

A Okay.

Q The attachment to the exhibit that states "GTE Telephone Operations TELRIC/TSLRIC Methodology," am I to interpret this as a complete definition of the methodology that was employed in developing TELRIC costs?

A (By Witness Steele) Yes, it is. And this is also located in Exhibit No. 36 with the appropriate appendixes attached, which provide a complete description of the models as well as the network elements that are attached as Exhibit 2, as well.

Q Now let me ask you to turn over to tab 4 of Exhibit 36 and what I would like to do is turn to, turn into the third page of that exhibit. It bears a number A-3 at the bottom right hand corner.

A I have A-3.

Q And just so I understand this, is it fair to say that

looking at this page, what is occurring is that there is a dollar amount associated with equipment investment and then there are certain costs such as material loadings that are added on to that investment, then all those costs are totaled and then added to that are annual cost factors; is that a fair description?

A That's close. At the top is also the installation labor and the items that you referred to as annual expenses are not really added to, they're a function of. So that what you see on the lines 13 and 14 are the annual costs and monthly costs respectively.

Q Now isn't it true that if you look through this tab and any tab that's found in Exhibit 36 as well as the five volumes that were introduced as Exhibit 51, that there is no information relating to where the equipment investment comes from?

A That is incorrect. In the Exhibit 51, supplemental materials, under this same tab, are all the inputs and outputs for each model that was used to derive these numbers.

Q Well, let's turn to the first page of that and the first page was included in the confidential binder that we distributed at the beginning of this.

MR. LEMMER: Madam Chairman, if I could have that page identified and marked.

CHAIRMAN CLARK: This?

MR. HATCH: Yes, ma'am.

MR. LEMMER: It's actually the second page that was included in your confidential volume.

CHAIRMAN CLARK: I have three pages all together, one is unmarked and two are marked 46 and 47.

MR. LEMMER: It is the last two, right at the top it says "COSTMOD System" at the very top and there should be two pages.

CHAIRMAN CLARK: All right. You want me to label this as a confidential exhibit, though, the three pages?

MR. LEMMER: That is correct.

CHAIRMAN CLARK: All right. It will be Exhibit 52. And give me a title for it.

MR. LEMMER: The title would be "COSTMOD System Loop Technology Module."

CHAIRMAN CLARK: Okay.

(Exhibit No. 52 marked for identification.)

BY MR LEMMER (Continuing):

Q Now, Mr. Steele, is this page that was just marked as Exhibit 52 an example of the support for the equipment investment that you were just talking about?

A (By Witness Steele) Yes. This is both an output and input report of the loop technology module within the COSTMOD system. I understand that this was entered as one page. I have two pages. I assume you're talking about the first page

and it is specifically for the low density area within our operations year for a loop length of 1,000 feet or one kilofoot.

Q Now the information that's on this first page, and let's start at the top where it talks about "Primary Loop Characteristics," is there any -- do you have any data in your study to support the average office size?

A I do not believe that in either one of the exhibits, 36 or 51, that there is a calculation that shows the average office size for the three density categories, low, medium and high.

Q In the second category that's on that page, "Secondary Loop Characteristics," is there any information in either of the exhibits that support that? And by the exhibit, I'm referring to Exhibits 36 and 51.

A The characteristics of distribution of plant is based on, for aerial, underground and buried is based on GTE's current information. It was not contained, to my knowledge, within this proceeding.

Q And then the third category, the "Outside Plant Distribution," my question is the same: Is there any included information regarding those numbers?

A This one I would probably have to ask counsel on. I have been informed that the models were made available in a redacted version to both parties and the information here is

the sizing algorithms that Mr. Wood referred to as the tree architecture that's used to design loop characteristics. They are listed here as how they're determined by the model based on length, size, aerial, underground and buried. Those are what is determined by algorithms of the model, similar to what Mr. Wood was talking about earlier.

Q Now looking at these three top items, the primary loop characteristics, secondary loop characteristics, outside plant distribution, I think you referred to them as inputs; is that correct?

A The items at the top of loop length are inputs and the distribution of plant between aerial, underground and buried are inputs. The outside plant distribution is not an input as derived based on the tree architecture that's inherent in the code of the model.

Q Now this data, how was this data developed?

A The data at the top for average office size represents the average office size that we have in this state for all central offices. The 1 kilofoot is not developed at all. It's simply an input where the analyst says that I want to analyze costs at 1, 2, 3, et cetera, kilofeet.

The percent aerial, buried and underground is based on current data in GTE's continuing property records. The algorithms that are identified and used for outside plant distribution which follow that are based on standard

engineering design as provided to GTE, it's provided by model development people by GTE's operations personnel. The state specific labor rates which follow that are provided by GTE's finance, which are the direct labor rates with each labor categories that you see there.

Q Now looking back up at the primary loop characteristics, and we're talking about average size, is that average based upon averaging -- Let me rephrase the question. Is that average a result of or reflect the entire universe within the State of Florida ?

A That is the entire universe, correct.

Q So it is not based on a sample?

A It is not a sample.

Q If you look further down that page at the bottom, the bottom six columns, and there are various numbers that appear in these columns; is it fair to say that these numbers result from the application of a software program to the input data?

A It is fair to say that for the last three columns. The first column is just an identification and the second is identification of uniform system of accounts. The last three columns entitled "Material investment, labor investment and total investment," which is the sum of those two, are derived by the model.

Q And when you say "the model," you're talking about what's known as the COSTMOD model?

A Specifically for the loop technology module within that system, which is what this exhibit is displaying.

Q Now if you turn back to the third page of tab 4 of Exhibit 36, Page A-3, we just finished talking about the line where it says "Equipment Investment." Would you agree that based upon the way that the numbers are generated on this page, that developing an appropriate cost for equipment is critical?

A I would certainly agree that it's a necessary input price to determine costs.

Q Well, would you agree that every cost that's developed on the rest of the page is based on the amount of dollars associated with equipment?

A Not just equipment, but also the associated labor that goes with that.

Q But isn't it a fact at the beginning of this process, which is what I will call a cumulative process, begins with the equipment value?

A Yes, it does.

Q And is there any way --

A As well as the labor. The labor algorithms in the model for splicing and placing, trenching, et cetera, are separate algorithms based on GTE standards. And it's not just the material price that's important. It's also the labor, particularly in distribution plant.

Q Let's talk about the labor, where is the support for

the labor?

A Labor, as I said, the state specific labor rates are provided by GTE's finance personnel.

Q Now I see the numbers that you have, the page that we were looking at previously, which was then labeled Exhibit 52, but my question is where is the support for those labor dollars?

A The support for that labor dollars for splicing and placing of cable facilities and the associated pair gain devices as well as poles and conduits are provided by our operations personnel. It's contained within our operations systems and its practices. That's the source of that information.

Q And documentation reflecting the source of that information is not contained in the study; is that correct?

A No, you asked me that question earlier and I told you it was not, that that's part of our operations standards. There's a system or a series of pars that support those standards. In our operational procedures, you can identify by cable size the splicing time, the placing time, et cetera. And that's what's incorporated in this model.

Q So you have time and motion studies among other things that might support a labor rate; is that correct?

A I do not have time and labor rates to support -- or time and motion studies to support a labor rate. A labor rate,

again, is provided by finance. I have specific data to support the time, the work time requirements for splicing and placing.

Q Okay. Let's look at engineering and installation, which is the third column on this page that we're looking at in tab 4. And can you tell me where those numbers come from? And by that I mean can you tell me where in the study those numbers are derived?

A What page are you on, again, please?

Q I am on the third page of tab 4 of Exhibit 36.

A Yes. That information is derived from now what's referred to as Exhibit 52, under the column labeled "Labor Investment" in the bottom.

Q And is it a correct assumption on my part that the costs for labor investment were derived by information received from your accounting department; is that correct?

A I'm sorry; I didn't hear the question.

Q The labor investment that's identified there I assume is the result of receiving information from your accounting department; is that correct?

A That is not correct.

Q Okay. Where do you receive it from?

A The labor rates which are a component of that are received from the finance department. Those are labor rates that you see on Exhibit 52 listed under "State Specific Labor Rates." The algorithms for placing and splicing the cables as

well as placing and testing facilities in the network are in the model and are provided by GTE's operations personnel. The result of those labor rates and those associated engineering standards that I just identified are what derive the labor investment that's labeled at the bottom. That labor investment is carried over in your example to A-3.

Q Now, the fourth column, which is engineering, furnishing and installing loading, is that developed in generally the same way as we just discussed regarding engineering and installation?

A This particular exhibit is a generic cost summary tool that is used for analysis of all of our costs and there are no specific items identified in that line item. That is used primarily for central office equipment and the EF&I stands for equipment, furnished and installed. The items that we're talking about here are under line No. 3, engineering and installation, which are derived from Exhibit 52.

Q Let's move down to the next tier of costs here, where we're talking about the annual operating expenses, which include depreciation, return, composite income tax, maintenance, repair, customer operations, ad valorem tax and a gross receipts tax; do you see those columns?

A Yes, I do.

Q And can you tell me where in your study the derivation of the various numbers are derived?

A Yes. It's in what I refer to as Late-Filed Exhibit No. 1.

Q What does that exhibit show?

A It provides a response to your question, which is the derivation of each one of those items on lines 6 through 12.

Q And does that exhibit contain supporting documentation?

A I'm sorry; I didn't hear the question.

Q Does take exhibit contain supporting documentation that shows precisely where the numbers came from?

A Yes, it does.

Q Now as I understand it, these numbers that we're looking at on this page, as well as all of the attached pages, are the result of the application of a cost model; is that correct?

A The ones that you are referring to are specifically from that one module, the COSTMOD system, which is identified on Exhibit 52, "Loop Technology Module."

Q When we move out of the loop technology module, the COSTMOD system has other modules embedded in it for the particular type of element; is that correct?

A Yes, and all of those are listed in that one document that we were referring to previously, prefaced under tab 1.

Q Now is the COSTMOD a proprietary software program for GTE?

A Yes, it is an intellectual property of GTE. There is another module that was used, which is not owned by GTE, which is the switching cost information system; we receive that model under license agreement with Bellcore.

Q Regarding either the COSTMOD or the SCIS Model, has MCI, AT&T or the Staff been provided those models in this procedure?

A I am not aware.

Q So given the lack of those models, let's assume that those models were not provided, someone could not audit how the results of your study were derived; could they?

A Under that assumption, you would have to rely on the information that was filed in this package. Again, I do not know if they have been made available or not. I was advised by legal counsel that they were, but I have not confirmed that myself.

Q Now in designing the investment value or the equipment value, which was the first line on that page we've been looking at, what assumptions were made about the -- what I'll call the architecture that was going to be used? How was the architecture developed?

A Those are documented in the tab 1, but I will summarize them for you. The costs that you're referring to on A-3 represent copper, a technology for loops that are less than 12 kilofeet in length and it uses a pair gain technology, which

is fiber facilities from the central office to the pair gain device and copper facilities from the pair gain device to the customer's location.

Q And in that process, how were costs such as central office equipment or remote terminals factored in? How were they brought into the process?

A In the pair gain application, the pair gain device is commonly referred to in certain circles as switching equipment or a concentrator. It's incorporated, as I said earlier, for loop lengths that are longer in length. There are no central office equipment such as a line termination or switching calls and minutes or features included in that. Those are identified in other network elements.

Q What was the source of the price for each of these items of equipment that was used in this model?

A Net contract prices that GTE has with its vendors.

Q So those would be current contracts in existence today?

A Yes, they are.

Q Was there any analysis done to look out, say, three years, five years as to what the prices might be?

A Yes. I can't name them specifically, but many of the contracts that we have are not for one calendar year. I think that several of the cable contracts are three years. I believe the NorTel contract is two or three years. I would have to

verify that. They are not one year in duration.

Q Were any of those contracts provided in the supporting data for this study?

A I am not aware that they were asked, nor am I aware that they were provided.

Q Have you made any attempts to verify the accuracy of the output of the COSTMOD system?

A Most of the accuracy was in terms of the algorithms that are used in the model to make sure that they are in line with our standards, the accuracy of the splicing time and placing time and engineering set up time were all validated.

In the case of the COSTMOD system for switching, we validated that and the outputs are in total or accurate within several percentage points.

I don't -- I didn't personally validate the SCIS model at prices prior to discounts. That's validated by Bellcore and the documentation that I received is that it is accurate within 2%.

On the fiber optic model, which is used for interoffice transport for direct trunk transport as well as common transport, that information is validated by analyzing specific fiber systems that GTE employs. I don't remember the precise number but it's well under 2%.

Q In designing the architecture that was used to develop the equipment costs, were there any assumptions made about

changes in the future to reflect what might be future changes that would come about because of current technology?

A The only change -- Let me back up a little bit. Yes, there are changes in terms of what technologies are used, which are relevant for forward-looking analysis. For example, all of the interoffice transport facilities are based on fiber technology. All the switching facilities are based on digital technology. In the case of the loop architecture, all of those are based on a forward-looking technology, which is to use used copper facilities for loops less than 12 kilofeet and also pair gain technology for loops beyond 12 kilofeet.

There was one other change in that on loop facilities, based on input provided to me from our open market transition team, the nonintegrated technology was used for the longer loops, consistent with the requirement to use D4 channel banks in a nonintegrated unbundled loop environment.

Those are pretty much the changes that were required to be consistent with estimates of our forward-looking costs as well as be consistent with the contracts that we have with vendors.

Q Does GTE currently offer broad band type services to its customers?

A I did not do any analysis on broad band type services. I am not representing any materials in this particular proceeding on that. If you're referring to high capacity

services like DS1 and DS3, those high bandwidth services, yes, I've done analysis in this proceeding on those and they are contained within the filing package. In each case those were analyzed based on fiber technology.

Q So your answer was that that type of technology which I referred to as broad band was included in your study?

A I think you have to be more specific what you're referring to relative to broad band. If you're talking about high capacity, digital services, such as I gave you two examples, DS1 and DS3, they are provided within this package. They are required for entrance facilities, for example. And, as I said, I used fiber technology, which is appropriate forward-looking technology in analyzing those costs.

Q How about technology appropriate to providing video; is that included?

A There is no analysis contained here on video.

Q Does that mean it was included or excluded from the study?

A I did not do any specific analysis on video, although there are certain technologies in here that could be used for video application. My analysis was specifically associated with the network elements that were identified by Mr. Trimble.

Q Now if you would turn to the very first page of tab 4 of Exhibit 36; do you have that page?

A Yes, I do.

Q And directing your attention to the bottom grouping of numbers and descriptions, and I'm looking specifically at the utilization factor that's identified in the very last line; do you see that?

A Yes, I do.

Q And what is that, please?

A If you'll refer to your exhibit -- excuse me -- our Exhibit 52, you'll see that the output report of the COSTMOD system loop technology module has a column labeled at the bottom "Utilization Factor." And that 70% is what these costs are analyzed with, with the exception of pair gain technology, which was analyzed at 90%.

Q And there was a 55% factor that was also used; wasn't there?

A Yes. The 55% represents GTE's forward-looking fill factor, which is consistent with what's identified in the FCC's First Report and Order in paragraph 682, indicating that actual forward-looking fill factor should be used to determine the TELRICs and that's what that 55% represents.

Q And can you point me to anything in Exhibits 36 or 55 that supports that 55%?

A There is no specific materials contained in that tab that supports the 55%. I will be glad to answer about where that number was derived and what our actual fill factors and what process I went through to determine the 55% to be

relevant.

Q In determining some of the annual cost factors, is it correct that there was a cost of money factor used?

A Cost of what?

Q Cost of money factor, cost of capital.

A Oh, yes.

Q And I don't know if that's a proprietary number or not. If it's not proprietary, can you tell me what you used?

A Yes, it's based on GTE's current capital structure in the midpoint range for our price cap. I can look that up for you. It's based on a return on equity of 12.2% with a composite cost of capital of 10.14, composite rate of return, if you will, of 10.4 and has not been adjusted for the types of risks that the Company feels are appropriate as indicated in the First Report and Order.

CHAIRMAN CLARK: Mr. Lemmer, how much more do you have?

MR. LEMMER: Maybe about 20 minutes.

CHAIRMAN CLARK: All right. We're going to go ahead and take a break right now and switch out court reporters. We'll come back at quarter after 3:00.

(Transcript follows in sequence in Volume 17.)