BEFORE THE WASHINGTON

UTILITIES AND TRANSPORTATION COMMISSION

In The Matter of the Review of Unbundled Loop and Switching Rates And Review of the Deaveraged Zone Rate Structure.	UT-023003 Volume XI Pages 472-601

A hearing in the above-entitled matter was held at 1:32 p.m. on Wednesday, May 26, 2004, at 1300 South Evergreen Park Drive, Southwest, Olympia, Washington, before Administrative Law Judge THEODORA MACE, CHAIRWOMAN MARILYN SHOWALTER, COMMISSIONER RICHARD HEMSTAD, and COMMISSIONER PATRICK OSHIE.

The parties present were as follows:

QWEST CORPORATION, by Lisa Anderl, Attorney at Law, 1600 Seventh Avenue, Room 3206, Seattle, Washington 98191.

COMMISSION STAFF, by Shannon E. Smith, Assistant Attorney General, 1400 S. Evergreen Park Drive, S.W., P.O. Box 40128, Olympia, Washington, 98504-1028.

COVAD COMMUNICATIONS COMPANY, by Karen Frame, Senior Counsel, 7901 Lowry Boulevard, Denver, Colorado 80230.

Barbara L. Nelson, CCR

Court Reporter

VERIZON NORTHWEST, by Catherine Kane Ronis, Brad Berry, Polly Smothergill, Attorneys at Law, Wilmer, Cutler & Pickering, 2445 M Street N.W., Washington, D.C. 20037-1420.

AT&T COMMUNICATIONS OF THE PACIFIC NORTHWEST, INC., by Gregory J. Kopta, Attorney at Law, Davis, Wright, Tremaine, 2600 Century Square, 1501 Fourth Avenue, Seattle, Washington, 98101.

WEBTEC, by Arthur A. Butler, Attorney at Law, Ater Wynne, LLP, Two Union Square, 601 Union Street, Suite 5450, Seattle, Washington 98101 (Appearing via teleconference bridge.)

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JUDGE MACE: Let's be on the record in the Matter of the Review of Unbundled Loop and Switching Rates, the Deaveraged Zone Rate Structure, and Unbundled Network Elements, Transport and Termination. This is Docket Number UT-023003. Today's date is May 26th, 2004. We are convened in the offices of the Washington Utilities and Transportation Commission in Olympia, Washington, and we are scheduled now to begin the evidentiary proceeding in this docket.

My name is Theodora Mace, and I'm the Administrative Law Judge hearing this case. The Commissioners are here with me, Chairwoman Marilyn Showalter, Commissioner Richard Hemstad and Commissioner Patrick Oshie on my right, and on my left, Dr. David Gabel, who will be participating in the hearing.

I'd like to have the oral appearances of counsel now, just the short form, and I'll begin with the counsel that are in the hearing room. And if you would begin, Ms. Ronis.

MS. RONIS: Catherine Kane Ronis, of Wilmer Cutler Pickering, LLP, representing Verizon. And on my right is my colleague, Brad Berry, also of Wilmer Cutler and Pickering.

MR. KOPTA: Gregory J. Kopta, of the Law Firm Davis, Wright, Tremaine, LLP, on behalf of AT&T Communications of the Pacific Northwest, Inc.

MS. FRAME: Karen Frame, on behalf of Covad Communications Company.

MS. SMITH: Shannon Smith, Assistant Attorney General, for Commission Staff.

JUDGE MACE: I'd like to turn now to the conference bridge. Are there any counsel on the conference bridge?

MR. BUTLER: Yes, Arthur A. Butler of Ater Wynne, LLP.

JUDGE MACE: Mr. Butler, can you speak up, please?

MR. BUTLER: Yes, Arthur A. Butler, from Ater Wynne, LLP, on behalf of WeBTEC.

JUDGE MACE: Thank you. Anyone else?

MS. ANDERL: Thank you, Your Honor. Present in the hearing room -- I'm sorry I didn't make my presence known sitting in the back -- Lisa Anderl, on behalf of Qwest.

JUDGE MACE: Thank you. I guess, just preliminarily, it's my understanding that there are no issues that concern Qwest that are left in this proceeding; is that right, Ms. Anderl?

MS. ANDERL: That's correct, Your Honor.

JUDGE MACE: I think I'd like to address a few preliminary, very brief preliminary matters before we go ahead with the cross-examination of the first witness, Dr. Howard Shelanski.

The first one is we did agree that each witness would be allowed a three-minute-or-less summary of testimony, and we'd like you to make sure to adhere to that three-minute limit and to make sure that it's a summary. We'll take a break probably around 2:45, depending on how the testimony is going.

The third item that I want to mention has to do with a decision that's been referred to in many places in the testimony, and that is the -- thank you. That is the Wireline Competition Bureau, I think I've got that correct, Virginia Arbitration Order. And my understanding is that is not an order of the Federal Communications Commission; it's a WCB order. And if you're going to refer to it in cross-examination, you should make clear -- not say an FCC order, but rather refer to it as the WCB Virginia Arbitration Order, so that we're clear about the distinction.

Is there anything else of a preliminary nature before we go ahead with Dr. Shelanski? If not, then we're ready. Please approach the witness table here. We're set up for a panel and anticipate that we'll have varying numbers of people, so I guess you get to choose your chair. Before you sit down, stand and raise your right hand.

Whereupon,

DR. HOWARD SHELANSKI,

having been first duly sworn by Judge Mace, was called as a witness herein and was examined and testified as follows:

JUDGE MACE: Please be seated.

THE WITNESS: Thank you.

JUDGE MACE: Go ahead.

D I R E C T   E X A M I N A T I O N

BY MS. RONIS:

Q. Good afternoon, Dr. Shelanski. Can you state your name and business address?

A. Yes, Howard Shelanski.

JUDGE MACE: And Dr. Shelanski, could you make sure that your microphone is on and you speak directly into it?

THE WITNESS: Okay. Now it's on.

JUDGE MACE: That's better.

THE WITNESS: Howard Shelanski, University of California at Berkeley, Berkeley, California, 94720.

Q. Dr. Shelanski, do you have in front of you your direct testimony dated June 26th, 2003?

A. I actually left my copy in my briefcase. May I have a copy?

Q. Sure.

CHAIRWOMAN SHOWALTER: That's one of those boilerplate questions. We've never heard anything but yes.

Q. And for the record, it's been pre --

A. Yes.

Q. It's been pre-marked as Verizon Exhibit 1-T. Was this testimony prepared by you or under your direct supervision?

A. It was prepared by me.

Q. And if I were to ask you the same questions today, would your answers be the same?

A. Yes, they would.

Q. You also have in front of you your rebuttal testimony dated May 12th, 2004?

A. Yes.

Q. And for the record, that's been pre-marked as Verizon Exhibit 2-T. Was this testimony prepared by you or under your direct supervision?

A. Yes, it was.

Q. If I asked you the same questions today, would your answers be the same?

A. Yes, they would.

MS. RONIS: Is this the appropriate time to move the two exhibits?

JUDGE MACE: Yes, I believe so.

MS. RONIS: Verizon would like to move Exhibits 1-T and 2-T into evidence at this time.

JUDGE MACE: Any objection to the admission of those proposed exhibits?

MR. KOPTA: No objection.

JUDGE MACE: I'll admit them.

CHAIRWOMAN SHOWALTER: Ms. Kane, I can tell from your first questions you're a pretty fast talker. And for our sakes and the reporter's sake, be sure to take a look at her every once in a while to see if she's straining, or at us, and see if we are.

MS. RONIS: Thank you. I will do that. Dr. Shelanski, you may present your three-minute summary at this time.

THE WITNESS: Okay. I will be very brief with my summary, because my testimony's rather brief. I have three points that I try to make in the testimony that's been pre-filed.

The first is that the pricing of unbundled network elements should have the goal of producing not just competitors, but meaningful competition that benefits consumers over time. In my view, that means setting prices that get competitors to do the right thing, where, by the right thing, I mean the path of market entry that provides the least-cost way for a competitive carrier, a CLEC, to serve local customers.

If it is more efficient for a CLEC to serve local customers over its own facilities to build and operate those facilities, then unbundled network element prices should not artificially attract the CLEC away from that entry path. If, on the other hand, a CLEC cannot obtain and operate facilities at less than the total forward-looking cost of ILEC facilities, unbundled network element prices should not be set so high as to drive the CLEC out of the market or to less efficient alternatives of serving customers.

UNE prices should set correct pricing signals that induce market entry in a way that isn't really producing the image of competition, and several people serving consumers at the same cost or at subsidized cost, but rather meaningful competition that will endure for the long-term.

My second point is that for UNE prices to achieve this job of sending the correct pricing signals, of creating efficient and enduring competition, the prices for unbundled network elements must be based on the real world forward-looking costs of an incumbent carrier. By these, I mean the costs that the incumbent, as it evolves its network going forward, will actually incur, not the cost of a hypothetical network that, in fact, does not reflect the costs of entry and of serving customers over time.

The third point that I tried to make in my testimony is that, based on my review of the testimony of other Verizon witnesses and my consultation with the company, Verizon's cost model, VZ Cost, in most respects comports with the objective of sending efficient forward-looking and real world pricing signals to CLECs. I say in most respects because the model has been designed in a way that --

JUDGE MACE: Ten seconds.

THE WITNESS: -- that is quite forward looking and perhaps understates its costs to the benefit of CLECs.

MS. RONIS: Dr. Shelanski is now available for cross-examination.

JUDGE MACE: Mr. Kopta.

MR. KOPTA: Thank you, Your Honor.

C R O S S - E X A M I N A T I O N

BY MR. KOPTA:

Q. Good afternoon, Dr. Shelanski.

A. Good afternoon.

Q. While we are identifying exhibits, do you have in front of you a copy of Exhibit 3?

MS. RONIS: That is the data request.

THE WITNESS: The data request, yes, I do, sir.

Q. And is this data request accurate, or your response accurate?

A. Yes, what I reviewed in preparation for my testimony, yes, sir, it is.

Q. Okay. Then, if you would, turn to page two of your direct testimony, Exhibit 1-T, and specifically beginning on line 13.

A. Yes.

Q. Am I correct that, based on your response in Exhibit 3, that you have not participated in the development of any of Verizon's cost models?

A. That is correct. I have not.
Q. Have you participated in running any of Verizon's cost models?
A. No, sir, I have not.
Q. Okay. Then, beginning on line 17, do you have any background in engineering?
A. No formal training in engineering.
Q. Okay. So am I correct in stating that your opinions, with respect to modeling issues and engineering issues, are based on testimony of other witnesses in this proceeding and other proceedings, as well as FCC orders?
A. Yes, although, just to clarify, they are based on testimony by the cost panel and by other witnesses in this proceeding, and discussions that have told me about developmental aspects of the model, what some of the principles of developing the model were, how the assumptions of the model operate, but, you know, insofar as actually working on development of the model, you're correct. I have not been involved with that.
Q. Would you turn, please, to page seven of Exhibit 1-T?
A. Yes.
Q. Specifically line 17. It begins on line 17.

This is actually in the middle of the sentence and the middle of the line. You state, The advent of competition has rendered retail demand less certain. Is that correct?

A. Yes.

Q. Okay. If competition has rendered retail demand less certain, would a risk premium such as you support the recommendation of for the cost of capital for UNEs also be appropriate for the cost of capital for retail rates?

A. Well, I would defer any discussion of cost of capital there beyond UNEs to Dr. VanderWeide. That's quite outside anything I've written about in this testimony and is not something that I'm particularly expert in. But I will say that there are differences in the kinds of risks that demand uncertainty at the retail level, create for Verizon in its retail operations and for Verizon in its wholesale operations.

One of the important differences is that Verizon, in terms of its forward-looking maintenance of its network and deciding how best to manage its network assets for demand on certainties in the retail market, it has direct control over those assets insofar as it uses them for the retail market.

It has a lot less discretion on how to manage assets when it has to have them readily available by law in the wholesale market.

So the risk premia and the ability to manage them going forward, you may wind up, in other words, with different kinds of risk premia, different levels of the risk premium. I wouldn't say they're identical, if that's what you were driving at.

Q. Well, that raises a couple of additional questions. First, as sort of a cleanup, you do support Dr. VanderWeide's cost of capital analysis in your testimony?

A. Yes, I do.

Q. All right. So have you undertaken any independent analysis of cost of capital issues, or is your testimony based solely on reading his testimony?

A. No, let's be very clear. I do not talk at all about the appropriate level of the risk premium, and I've done no calculation of the appropriate level of the risk premium. What I have testified about, and is a matter of independent theoretical analysis and judgment, is whether or not a risk premium is warranted, whatever the appropriate level may be. So my testimony on risk premium is my own analysis. It is not based on Dr. VanderWeide's analysis.

Q. Okay. Then let's discuss that for a bit. Did I hear you correctly that the distinction that you're drawing between UNEs and retail service is that there's some compulsion to provide UNEs, whereas there's not the same compulsion to provide retail services?

A. I think that there are -- and again, I would defer to Dr. VanderWeide, I would defer to the network engineers. There may be more -- certainly, they're a carrier of last resort obligations and things like that that apply to a regulated incumbent telephone company, but the way the network is designed, the way that services are provided, these are things that fall much more in a zone of discretion in the retail operation than they do in a wholesale operation when a carrier's been told that a certain UNE must be available in a certain place.

Q. So are you saying that how Verizon spends money to maintain a UNE is different than how Verizon spends money to maintain the same facility when it's part of a retail service?

A. I think it depends what you mean by maintain. If you're talking about short run, if it's clear that a piece of network equipment is going to be in place for either retail or wholesale, I have no particular knowledge, you'd have to ask Verizon, but I'd be very surprised if there was any difference. I'm certainly not arguing that they maintain the assets differently, but what kinds of assets they put in place can be constrained by regulatory obligations. That's my point. And the regulatory obligations differ at the wholesale and retail levels.

And you'd have to, I think, talk to a network manager to see the specifics of how managing assets differ, but it's safe to say that a regulated firm sometimes can't do things that it would like to do when it has obligations to third parties. And I'm talking about third parties other than consumers, to take certain assets out to replace them with certain kinds of plant, to not have them available in certain areas.

Q. So you're saying that if Verizon wanted to take a particular facility out of service, it would have different constraints if it were providing that facility to a competitor than --

A. I'm saying it's possible. I'm not stating that as an affirmative argument; I'm just saying it's possible. I was trying to really get to the point that I don't think that you necessarily have risks that are identical or commensurate between the wholesale and the retail level, and I was just speculating as to why that might be so.

Q. Okay. Well, let's just accept, for purposes of this discussion, that there is a distinction. Would a risk premium nevertheless be appropriate if, at a different level, for retail rates?

A. No, no --

MS. RONIS: I object.

JUDGE MACE: Just a moment. It's helpful, first of all, as between the counsel and the witness, try not to speak over each other.

THE WITNESS: Oh.

JUDGE MACE: Because it's hard for the reporter to take down what you're saying.

MS. RONIS: My objection is I think Dr. Shelanski has stated a couple times that he is not an expert on retail cost of capitals. That's for Dr. VanderWeide to answer, and he's here today.

JUDGE MACE: Mr. Kopta, your response.

MR. KOPTA: Well, I believe I clarified, or the witness clarified that he has an independent basis for his opinion on evaluating risk premiums, not the amount, but whether a risk premium is appropriate, so I'm simply exploring whether a risk premium is appropriate under those circumstances.

JUDGE MACE: Well, I recognize that his testimony is not specifically on risk premium, but he does allude to risk premium and to competition with regard to retail demand. I wouldn't want to go too much further with this, and I don't know how far the Commission would want to go, but I'm going to allow some additional questioning.

THE WITNESS: Well, let me just clarify. There is -- I think there's a much more fundamental difference between the retail and the wholesale premia that we're talking about. The wholesale premium incorporates an option value and, as Dr. VanderWeide can explain much better than I can, but you know, anyone familiar with the basic option pricing models and the basic cost of capital calculations that are recognized under GAAP, there are differences in how you calculate the risk premium for something that has an option value, so the option value that is created for CLECs in taking or not taking UNEs is something that does not typically factor into a cost of capital analysis. It is a different kind of risk premium from the kind of risk premium that is typically factored into a cost of capital. So there -- I think I understand now what you were getting at.

There are differences in the nature of the risk, the option value that is at issue in the wholesale market versus the risk of general demand fluctuations, which would be at issue in the retail market.

Beyond that, I really can't say anything about the technical differences of what the -- or the quantitative differences in what the risks would be, but they are fundamentally different kinds of risk, and you calculate an option value differently from the way you calculate a general market risk.

Q. Okay. If you would, please, turn to page nine of Exhibit 1-T, specifically a portion beginning on line 16. And the sentence that begins on that line says, Note that this discretionary demand by entrants for network elements is itself a source of uncertainty for incumbents trying to make efficient investment decisions. Have I read that correctly?

A. Yes.

Q. Verizon is obligated to invest to serve retail customers, regardless of the demand for wholesale services, isn't it?

A. I would assume so. I'm not familiar with the specifics of its state obligations.

Q. So is it your testimony, then, that this discretionary demand for UNEs somehow impacts Verizon's decision to invest in its network to provide retail services?

A. No, that's not what I say at all. What I say is that the discretionary demand for UNEs at wholesale is a source of uncertainty in and of itself that certainly affects, assuming a fixed pool of capital to invest, the allocation of investment within the company.

Q. So are there allocations of investment that Verizon would make solely to provide UNEs?

A. Sure, especially if UNEs are being maintained because they have to be available in an environment of declining access lines. Then it's not the case that every asset that is available at wholesale is necessary to serve customers at retail.

Q. Can you give me an example?

A. I can't give you a specific example, but I can tell you that, generally, what I'm talking about is there's an assumption that's often made that any UNE, if not taken by the CLEC, will automatically be rolled over and used by the ILEC to serve the customer, and that's an assumption that doesn't hold in an environment of declining access lines.

Q. Well, Verizon does not construct facilities solely to provide UNEs, does it?

A. It doesn't need to. That's irrelevant to my point. It may have facilities already constructed that are available as UNEs that have to be maintained and provided as UNEs, but in an environment of declining access lines, if the CLEC does not use them, if the CLEC takes them for a month and loses the customer, it's not necessarily the case that --

JUDGE MACE: Dr. Shelanski, I'm sorry, I'm wondering if you could speak a little more closely to your microphone and enunciate a little. I'm just losing some of what you're saying.

THE WITNESS: I'm sorry, Your Honor. Is that better?

JUDGE MACE: That's better. Thank you.

THE WITNESS: Okay. It's not necessarily the case that every asset provided at wholesale, when it ceases to be used by the CLEC, is automatically redeployed for retail services in an environment of declining access lines.

Q. Well, perhaps we're talking about two different things. My understanding was -- or my approach has been an investment, which means originally constructing the facilities, and my understanding is that Verizon only originally constructs facilities to serve retail customers. Is that incorrect?

A. It depends how far back you want to go. Certainly, when the network was built, that's what it was built for. On a forward-looking basis, you'd have to talk to Verizon about that, but to the extent that they will have obligations, and I might add that its obligation to provide facilities where it doesn't have them is something that is quite up in the air and is heavily litigated around the states, so taking into account, on a forward-looking basis, the possibility of being required to provide assets where the company would otherwise not have them for retail purposes because they've been demanded at wholesale is an open question, it's been litigated before a number of commissions, and I think it's safe to say that it at least raises the question for the company of whether their forward-looking investment is driven not solely by retail, but by its UNE obligations.

Q. If you would please turn to page 12 of Exhibit 1-T, specifically on the sentence beginning on line six. There you're discussing Verizon's model and you state, The model thus likely generates forward-looking operating and maintenance costs that, when adjusted for changes in quality and quantity of services, are lower than those that will actually exist. Have I read that correctly?

A. Yes, you have. Yes.

Q. It's your use of the term likely I wanted to explore. Is this based on any study that you've conducted in terms of a comparison between these types of costs?

A. Well, I mean, it's based on the way that the VZ Cost model is designed. The VZ Cost model does not base costs on the network equipment that will, in fact, be in place over the course of the study period. It assumes that the incremental technological changes that Verizon is putting in place, for example, the technology it is deploying incrementally going forward for loop plant or distribution plant is ubiquitously deployed in the network.

What that does is to base costs on facilities assumptions that are more forward looking, more aggressive than what, in fact, will be in place.

Now, it is not always the case -- and the reason I say likely is for the following reason. It's not impossible for UNEs, on a forward-looking basis, to be much higher than, for example, even book cost. Trenching today, for new loops, is quite expensive. And so if you really were going to take the forward-looking cost of a -- of building a new kind of loop, it would be extremely high, and your TELRIC price might be, if you really did it right, looking at the fixed cost and the operating and maintenance costs, be very, very high.

That may not be the case for all facilities, I don't know. I haven't looked at every component of the network and seen what the forward-looking costs would be, what the new costs would be. It's also hard to know exactly what quantity and quality adjustments to make. A loop now provides -- is capable of providing different kinds of services with higher levels of quality than was the case 10 or 15 years ago. So how do you adjust for those in the cost?

But the main point of the sentence is that Verizon does not take into account all of the capital and depreciation costs that you would really have to take into account if you assumed a completely new network being built going forward and, moreover, one that was susceptible to, if not actual full replacement, even an assumption of full replacement in a subsequent rate proceeding. It doesn't adjust for the very high depreciation levels and the substantial cost of capital that would be involved there.

What it does is it takes the cost of capital basically of its existing assets, yet gives the benefits of the presumably more efficient operating and maintenance costs of the new equipment. So it mixes and matches, if you will, the benefits of the new equipment, lower short run costs, with the benefits of the older equipment that still has economic value, lower fixed costs, and that's why I say it likely understates the actual costs of the network going forward.

Q. Okay. Well, I just wanted to know whether your use of the word likely would be the same as mine, which is that it may or may not be true, but in your view, it is more likely to be true than not?

A. In my view, it is more likely to be true than not.

Q. Would you turn to page 13 of Exhibit 1-T, and specifically beginning on line 16, you're discussing purchases and discounts of switching.

A. Yes.

Q. Have you reviewed Verizon's switching contracts for the state of Washington?

A. No, I have not.

Q. Have you been involved in any negotiations with switch vendors?

A. No, I've never purported to be.

Q. So this testimony is, again, based on the testimony of other witnesses that have --

A. Well, no, again, there is -- there are principles at issue here, and the principle that is at issue here is, again, not about what the particular number should be for a discount, but it's about the hazards of assuming that the deepest discount that has ever occurred should be presumed to be the forward-looking switch price. And talking as an economic matter about why that is not an assumption that one should make going forward, and that very deep switch discounts of the order of one percent of list, where switches are being sold for pennies on the dollar, as an economic matter don't make sense.

And if you are going to assume a very deep discount, there really needs to be very compelling evidence that, (A), that really is the switch price, and that the margins for that switch are not being recouped by growth additions, upgrades, and other aspects of the switch, and (B), that if you actually did, as AT&T's model proposes, fully replace all the switches in the Verizon network, that those are the discounts that one would see. The discount that might -- that might be given for one switch would not be the discounts that were reflected in a much higher demand environment to full replacement.

So my point there is not so much to say that I have been involved with -- switch discounts in any particular number is wrong, but more to say that looking at very deep discounts and assuming that those were the forward-looking prices probably misperceive what the real price of the switch would be or is, and would greatly understate real switching costs going forward.

You know, and I might add that the other part of my point here is that if switch discounts really are so extreme, there has to be a compelling theory of why those discounts aren't available to everybody in the market, and why the discount that is used for UNE price calculations should be different from the discount that is used for judging impairment in switching.

There really is no theoretical basis, no economic basis for using discounts differently in the two settings. And if we really are talking about 95 percent discounts as being the forward-looking price, if that's the real price of the switch going forward, then they're clearly not a source of impairment. They're available for almost nothing to anybody.

Q. What is the switch discount that AT&T assumes in the HM 5.3 model?

A. I think it's 99 percent, but --

Q. Ninety-nine percent?

A. Again, I'm not exactly sure, but that -- on belief without saying I know it to be true. And it wouldn't matter if it was 99 percent or 89 percent or 79 percent. The point is it needs to be economically justifiable. And just looking at the cheapest switch ever sold and presuming it to be the forward-looking price is almost certainly not economically justifiable.

Q. And that's what you believe that the HM 5.3 model does?

MS. RONIS: Objection, again. Dr. Shelanski has said he doesn't know the specific inputs of Hatfield, so -- and it's been answered.

JUDGE MACE: Mr. Kopta.

MR. KOPTA: He was characterizing the switching costs and prices in the model, and I'm just following up.

THE WITNESS: No, actually, I was not, sir.

JUDGE MACE: Now, if you can just hold on for a minute. I just want to deal with the objection, and then, if you can answer, I'll let you answer, and otherwise -- anything else? I'll allow the answer to these questions.

THE WITNESS: No, I mean, again, you know, as you all know, I was not involved with the development of your model, so I choose not to discuss or comment on your model.

Q. Okay. If you would please turn to page 19 of Exhibit 1-T. On line one, you state that UNEs are intended to be a transitional device to facilitate and move to alternative facilities or technologies; is that correct?

A. Let me review the whole sentence. Yes.

Q. And is that your legal interpretation of the Telecommunications Act of 1996?

A. Well, I'm not here to offer legal interpretation, but I think it's fair to say that it is an interpretation that is -- has been often advanced by -- it was advanced in the legislative history to the Act, it has been discussed by the Federal Communications Commission, most recently in its TELRIC NPRM.

Q. So is it your belief that one or more competitors will completely duplicate Verizon's network in Washington?

A. No, and that's not anything that is required for competition to be meaningful. It must be understood there are a lot of customers that an unconstrained competitor would choose not to serve in any market, so the requirement to complete duplication is not what the competitive market would provide and it's not, in my opinion, the appropriate benchmark for competition or for lack of impairment.

Q. Is it possible that a CLEC would decide that it wanted to use Verizon facilities and had no interest in constructing its own?

A. If the prices are low enough, it certainly is. That would be a bad outcome, but it's possible.

Q. So you think that it should never be the case that a CLEC would simply want to use Verizon facilities rather than constructing its own?

A. No, if it's paying the full cost of those facilities, the real cost of those facilities, and that's the best that it can do, then, in keeping with the theory of TELRIC and the principles of the Act and general economic principles, that would be fine.

Q. Now, if you would please turn to your rebuttal testimony, which is Exhibit 2-T, specifically the sentence that begins on line 11.

JUDGE MACE: On page one?

MR. KOPTA: On page two, I'm sorry.

Q. And farther down in that sentence, you state, beginning on line 12, The existing locations of the basic points in the network configuration -- and you give some examples -- would be unlikely to change significantly, even if the network were built entirely from scratch. Is that correct?

A. Well, let's be clear, this paragraph must be taken in context of what comes before it. Verizon's customers are going to be where they are, trees, rocks, rivers, physical -- you know, topological characteristics are going to be where they are, and this is in the context of saying that even if Verizon were to build its network from scratch, it would not be able to do all of the things that a greenfield or even a scorch node model does in terms of an efficient routing and in terms of the algorithms that lead to loop lengths and loop costs that completely ignore those features.

Q. So you do hold out the possibility that the network design would be different today than it was when it was originally constructed?

A. Well, as Verizon's own engineering plans and cost models make clear, they're not simply perpetuating exactly the same network going forward.

Q. If you would turn to page three, beginning on line 16, a sentence that starts toward the end of the line, In particular, one would have to include today's costs for obtaining rights of way along the newly-drawn routes and for the placement of facilities such as DLCs, which are likely to be significantly higher than what Verizon previously paid for rights of way, et cetera.

A. Yes, that's the sentence.

Q. Are you referring to both public and private rights of way?

A. I mean, yes, I think generally I'm referring to both of them.

Q. So it's your belief that public rights of way are more expensive today than they have been in the past?

A. I have no particular knowledge, but certainly, given the property values of property have increased substantially and congestion has increased substantially, both the price one would predict for rights of way would be higher to reflect higher property values due to increased usage and congestion similarly drives up the price and makes it more costly for rights of way to be allocated. So it's certainly a speculation, that's why I use the word likely, but I think one needs to take that into account in not mixing and matching costs from yesteryear when they're lower with costs for the future when they're lower. You've got to be very consistent.

If you're going to rebuild the network from scratch, let's really do it from scratch and take account of all the costs that would be incurred going forward, not just look at the costs that would be lower because technology's more efficient and ignore the costs that would be higher. And that was really my point.

MR. KOPTA: Thank you. Those are all my questions.

JUDGE MACE: And my understanding is no other counsel has cross? All right. Dr. Gabel.

E X A M I N A T I O N

BY DR. GABEL:

Q. Good afternoon, Professor Shelanski. I'd like to begin pursuing the theme of your last remark about needing to have a consistent set of assumptions in the cost study.

A. Sure.

Q. And it's my understanding that you're the Verizon witness who can best address the general methodology of a UNE cost study, but when it comes to the specifics, that type of question should be posed to another witness; is that correct?

A. Yes, that's correct.

Q. Okay. All right. What I'd like to do, Dr. Shelanski, is bring to your attention one or two passages from other witnesses' testimony, and then return to the topic of consistency, because I'd like to have your reaction on a particular concern of mine regarding consistency. Okay. The first witness --

JUDGE MACE: Dr. Gabel, are you going to give the witness something to read?

DR. GABEL: Yes, I will.

THE WITNESS: Thank you.

Q. Okay. The first is Dr. VanderWeide's May 12th, 2004 testimony.

JUDGE MACE: That has been marked 106, and can you hold that up? We have to get our copies of that.

DR. GABEL: I don't think there's a lot that you need to look through.

CHAIRWOMAN SHOWALTER: Is this less than one sentence?

DR. GABEL: Yeah, it's just one or two sentences.

CHAIRWOMAN SHOWALTER: All right.

Q. Would you agree, Dr. Shelanski, that Dr. VanderWeide says that in establishing the cost of capital, that the Commission should assume the presence of full facility-based competition?

A. Yeah, I mean, what he's arguing -- what he's citing, and you've marked lines 22 to 24 on page 14 of his May 12th testimony, and what he's doing is citing there the Federal Communications Commission Triennial Review Order as bolstering his point, his point being the more general one, that the cost of capital should reflect the risks of competition.

Q. All right. And then the second piece of testimony, from Willett Richter's testimony of April 20th --

JUDGE MACE: Give me just a moment. That's marked 451.

Q. At page 24, Mr. -- is it Mr. or Ms. Richter, Willett? I'm sorry.

MS. RONIS: Mister.

Q. Sorry. Mr. Richter is responding to some recommendations of Mr. Donovan regarding structure sharing. Mr. Richter's response, at page 24, as I read it, is that these are recommendations that aren't based upon numbers that can be validated by the Commission, that they're assumptions that are made by Mr. Donovan. Is that a correct representation from your reading of this page?

A. Well, it's hard to say. I mean, you've outlined several lines here, two of which are questions, and there are only two lines of testimony. I have had nothing to do with Mr. Richter's testimony.

Q. Okay.

A. So I can't -- I think as far as asking what he's testifying to, you better ask him.

Q. All right. Well, let me just ask you to just address this general concern, then. In order to be consistent with Dr. VanderWeide's recommendation that, for establishing the cost of capital, it should be based upon the assumption of a fully-competitive market, what does that imply regarding how structure sharing is done? Do you base the inputs to the cost model based upon the actual levels of structure sharing that Verizon currently experiences, or do you do it based upon a hypothetical fully-competitive, facility-based competition market?

A. You know, I must confess, Dr. Gabel, I don't fully understand the question. And as this involves the -- as you see it, consistency issues between Dr. VanderWeide and Mr. Richter's testimony, I think I'd better defer to them to answer this question.

Q. Well, let me just ask you in general, since you're the expert on TELRIC methodology, what's your understanding of how structure sharing numbers should be established? Well, let me even move back a step. Is structure sharing a topic that you're familiar with? Do you understand what the term means?

A. Yes, but I mean, it goes far beyond the scope of any testimony I've offered. I've never testified on the issue of structure sharing.

Q. But you have testified on the topic of a need to have consistency in the cost study input values?

A. In the -- consistency in when you were using forward-looking values and when you were using past values and consistency in what cost of capital and depreciation you match with what operating and maintenance costs, yes, that I've testified on.

Q. And investment cost, too, forward-looking, because --

A. Yes.

Q. All right. And do you understand that structure sharing affects the level of an investment that is an output from a cost model?

A. Certainly, it does.

Q. And do you have -- maybe I'll just ask it one more time, and if you want me to defer to Mr. Richter, I will, but --

CHAIRWOMAN SHOWALTER: Dr. Gabel, before you ask your next question, can the witness please define what structure sharing is?

THE WITNESS: Yeah, I mean, it is not always the case, when somebody trenches, for example, to bury cable or builds poles or structure, that it's solely for them or that they bear the full cost of that structure. And they may share it with other carriers who -- for example, just to take a concrete example, the city of Washington, D.C., to stop streets from being dug up seriatim, required that all fiber laying and other structural initiatives be proposed jointly by any carrier in a particular window of time that wishes to lay fiber or do whatever, and so for any one carrier to claim that it bore the full costs, you know, for example, in a cost model, would be incorrect, because they're sharing the costs of building that structure going forward.

Q. All right. Let me ask you a hypothetical question. Suppose, in a rural area served by Verizon in the state of Washington, currently there's no structure sharing of buried plant with any other utility. Would it be consistent with Dr. VanderWeide's recommendation that the Commission assume, when establishing the cost of capital, full facility-based competition, for the Commission to assume that there's no structure sharing for that buried plant, or should it make a different assumption?

A. Now I understand the question. As to how it fits with Dr. VanderWeide's testimony, I'm going to leave that for him to answer, but as for the general question, if -- if, in fact, and we need to be very careful about your use of the word full, because we may not understand that differently.

A full competition does not necessarily mean, getting back to Mr. Kopta's point, competition for every line. Competitors rationally stay out of certain markets. But in markets where you can, with some basis, say that there will be structure sharing, then you need, on a forward-looking basis, to be consistent, to have those costs shared on a forward-looking basis. I fully agree with that.

But it is not necessarily the case that competition, going forward, leads to structure sharing. And there are a couple of different examples that I could give you, but most notably let's take the case of Alaska, where there is very high level of local competition, and it is being quickly migrated onto the cable plant of the leading CLEC. There will be no structure sharing for the incumbent going forward, because the plant onto which the competitive traffic is being routed already is built, already has rights of way, and will not do anything going forward to change the structure or cost.

So while if there is evidence that there will be structure sharing going forward, I fully agree with you that it must be taken into account in the proper justifiable proportions going forward, but competition does not automatically lead to an assumption of structure sharing.

Q. Okay. In your example from Alaska, you spoke of rivalry between two facility-based CLECs, and your example was specific to the telecommunications industry. But as I understand, from reading Verizon's case on the cost of capital, they're saying, when you establish the risk for Verizon, you should look at industrial firms, not telephone firms, and that's why the comparables is the Standard & Poors Industrial 500, not telephone industry. Is that your understanding, too?

A. Well, again, this is an issue that's squarely within Dr. VanderWeide's testimony and expertise, on which I think I would prefer not to answer questions.

Q. All right. Well, just my general -- your example was the telephone industry in the state of Alaska, where there are two facility-based rivals. Is that the right reference point for when the Commission resolves an issue like sharing, looking at a market where there are two facilities-based rivals, or are we in a world where we're supposed to look at things hypothetically, just as we don't look at the level of competition in Washington; we look at what hypothetically could exist?

A. I mean, I think that it is inescapable, in any forward-looking process, not to have to make assumptions, and if we want to call them hypothetical or not, you know, it's a fine word. I'm not going to treat it as a term of art, but we have to make assumptions going forward. Some degree of modeling is necessary. VZ Cost is a model. It is not a snapshot of, you know, clear reality.

The same thing will take place with structure sharing, but I think we need to -- what I would strive for is, as much as possible, to base whatever structure sharing percentages are used on real evidence of where the competition is coming from, and that may lead to structure sharing percentages that are very different in different markets.

In some markets, dense, urban markets, it may be the case that there are CLECs trenching and building fiber rings and building complete networks that overlap the ILECs to some degree, and they may have different network designs, but there may, on some routes, be structure sharing. So to calculate the accurate percentage based on that is, I think, a good thing to do. Look for the evidence.

In markets where there is evidence that a lot of the competition is coming intermodally, from wireless or cable, I think there it's perfectly appropriate in structure sharing and for purposes of cost of capital to use the model of two rival facilities-based carriers that are not, in fact, sharing facilities.

Q. Dr. VanderWeide, I'd like to now turn to a different topic -- I'm sorry, Dr. Shelanski, Professor Shelanski, I'm sorry. I'd like to turn to a different topic, which isn't specific to your testimony, but I'm just going to ask your opinion, since you are the economist as part of Verizon's case in this proceeding. I understand that we have an exhibit.

JUDGE MACE: Yes, this is Exhibit 1200, Dr. Gabel's -- or the Bench's exhibit, and it should be in your folders or you should have copies of it. I did distribute copies of it. The Commissioners should have it. It's the very last exhibit that's marked.

Q. Professor Shelanski, I'll try to walk you through this, okay?

A. Sure.

Q. First, in this case, on June 3rd, Verizon filed an Exhibit, RP-2, that established or proposed a statewide average ISDN BRI loop rate of $40.76. That doesn't appear on the exhibit that you have here. Instead, it's a different exhibit in this proceeding, okay. So do you have that number in mind? $40.76 is the proposed rate for an ISDN BRI loop.

A. Okay. Could you please define BRI for me?

Q. Basic rate interface.

A. Oh, basic rate, okay.

Q. And then, on the first page, WNU-21, Section Five, Third Revised Sheet Two, you'll see that the current ISDN PRI digital line side port rate is $13.39. Do you see that?

A. Yes, I do.

Q. So if we add the proposed statewide rate of $40.76 to the existing port rate of $13.39, we have a UNE rate, for just the port and the loop, of $54.15. Would you accept that?

A. Yeah, I mean, I must confess I've never looked at this exhibit before, and so I can't say that I have any, you know, knowledge about what's behind these categories.

Q. Okay.

A. So you know, I will agree that that's what those two quantities add up to. I really don't know what's behind them.

Q. Okay. Then, if we turn the page of the exhibit to Section Seven of WNU-17, we're looking at the rate for home digital ISDN single-line usage, and the access per month rate --

A. Mm-hmm.

Q. -- is $30, and that includes a 24-hour block of time. Do you see that?
A. Yeah, 25-hour block of time, yes.
Q. Yes, 25-hour. And then, on the -- say two pages farther, this is Section Seven, Seventh Revised Sheet 88, we have business digital single-line service, access per month of $50. Do you see that?
A. Okay. I'm sorry, which page are you on?
Q. Section Seven.
A. Okay. I've got it.
Q. You see that?
A. Mm-hmm.
Q. Okay. My question, Dr. Shelanski, is do you have any understanding of why a wholesale rate for a product would be $54.15 for the port and the access line, where the tariff rate, with the 25-hour block of time, is $30 for home use and 50 for business use? Do you --
A. Let me look. I'm completely unfamiliar with Verizon Washington's ISDN price or the environment in which it occurs. I'm not qualified to make any comment on this.
Q. Well, do you feel that you can just address, in general, should this be something that the Commission is concerned about when setting wholesale

rates? Should it be looking at the relationship between the proposed prices for a wholesale service and the existing retail rates?

A. I guess I have two -- two comments on that. One is that when we're talking about element pricing, to then turn around and start talking about services in that context is a dicey matter, economically. The FCC specifically decided not to base -- to base pricing under the '96 Act on a service basis. They did it on an element basis. I think -- I'm sure there were a number of reasons for that, but one of them is it's very hard to decide, especially when an element provides multiple services, how to interpret the different prices that are charged amongst different services that use an element.

My next point would be that I would not be terribly concerned, as an economist, at least, as an economic matter, about, for example, prices for some services that looked very low, even though they used the same elements, and if the concern would be that, well, some services are not fully recouping a particular proportion of the element, then I don't have any concern about that at all, because in competitive markets, firms do not allocate fixed costs to services. They recover costs as they best can, depending on levels of consumer demand.

So some services may be marginal cost priced in a competitive market, where others, for which there's more inelastic demand or less competition or whatever it may be, recoup the fixed costs. But I think it's a very dangerous thing, particularly when you're talking about high-speed services, to start to be concerned that retail prices don't appear to have a sufficient allocation of fixed costs embedded in them, because that's a market that's developing to be quite competitive, and you'll simply hamper competition in that market without changing anything fundamental about the element price. So the focus should be on element prices, not on service prices.

Q. I understand from your response that you were distinguishing between the marginal costs, which might be the right cost to look at for retail service, and average costs, which are the right costs to look at for UNE elements; is that correct?

A. Well, actually, I mean, I want to be very careful. The real distinction is between service prices and element prices. Once the element is priced at cost, how any provider chooses to use that element and what services they choose to provide using that element and how they price those services.

I think, you know, short of the, you know, retail regulation on the wireline telephone side is not something that should be of concern. In other words, if the element is used to provide competitive services or unregulated services, those prices should not factor in or raise concern for the Commission.

Q. Have you, in your work for Verizon, reviewed how they undertake retail cost studies?

A. No, I have not.

CHAIRWOMAN SHOWALTER: For the record, the Bench chastises itself for failing to paginate its own exhibit.

Q. Two more questions. Dr. Shelanski, in your rebuttal testimony, at page three, lines 20 to 22, you're discussing rights of way?

A. Yes.

Q. All right. Could you explain to me how rights of way costs are included in Verizon's loop study?

A. I actually would rather defer that to their loop witness, their loopy witness.

JUDGE MACE: Hopefully not.

Q. The last question, Dr. Shelanski, is an open-ended question, which ties in, I believe, to your opening remark, and it's just, as you just stated, when a forward-looking cost study is undertaken, assumptions have to be made. Is there general guidance you would like to provide the Commission on, when those assumptions are made, what kinds of trade-offs they should give weight to when considering promoting price competition versus facility-based competition? You know, what would economics suggest is in the best interest of society's welfare?

A. That is an open-ended question. I think that the most important thing is to make sure that real costs are incorporated in the price for UNEs, and the reason I say that that's the most important thing is you can think of two kinds of errors going forward. You could think of UNE prices that are too low and UNE prices that are too high, and which will have the worst implications for society.

I think that UNE prices that are too low have a number of harmful effects. There's certainly a raging debate over what UNE prices that are too low do to investment incentives for the incumbent. I'm not going to enter into that, but I think it's something that needs to be at least kept in mind, that firms that are not being compensated for their real forward-looking costs have an additional constraint placed on their investment decisions moving forward.

But I think, more importantly, for society, is the kind of competition that you get. And I think that there's a lot of evidence, and certainly there's statements from a number of authorities, including the FCC, that facilities-based competition brings a number of benefits that competition over a single network cannot provide. Certainly, if the incumbent has very inefficient retail operations, then somebody coming in and using their network at cost can bring benefits to consumers, price benefits to consumers by retailing at lower cost.

But there's certain things that the competitor using the incumbent's network won't do. And I love the quotation that Harvard President Larry Summers recently uttered, Nobody in the history of the world has ever washed a used car, nobody invests in -- excuse me, a rental car. Nobody in this world has ever washed a rental car, excuse me. Nobody is going to invest in, improve and upgrade a rental network.

So if a CLEC is using the ILEC's network, they're not going to start looking for innovative technology to buy themselves and put in the network.

Where you're going to get real innovation and the kinds of things that lead to serious benefits for consumers is by firms having their own facilities and capturing all the economic benefit of innovating and investing in those facilities. And that, I think, has been demonstrated in a substantial number of industries. I think that the kind of investment that we've seen the cable industry undertake is indicative of the kinds of things that firms do when they have their own networks and are not using someone else's network.

You know, why -- why are we going to get the kinds of innovation going forward if we're all using the same plant. And that's why I think it's extremely important, especially given the rise of competition, again, this resurgence in the past couple of quarters from cable, evidence that wireless is now substituting as much as it is complementing, these kinds of facilities-based competitors will place real pressure on the ILEC and bring real benefits to consumers.

If UNE prices are priced too high, competitors will either, as happens in many markets, enter with slightly higher cost structures if they have to build their own facilities where it's not efficient for them to do so, or we'll see intermodal competition develop.

If UNE prices are set too low, I think you have much greater harms. You have, as I say, the sort of tendency to use the ILEC network for far longer than it's efficient and you have effects on the ILEC's non-investment in that network.

So my main guidance going forward is not high UNE rates, per se; it's real honest cost-based UNE rates that get to the real costs of the network, so that Verizon is not being undercompensated and so that incumbents do make the right decision about the efficient entry path going forward.

E X A M I N A T I O N

BY CHAIRWOMAN SHOWALTER:

Q. I have a couple of questions. One is this issue of intermodal competition. You just talked now about if prices are too high or too low, and let's say, like Goldilocks, they're just right in your eyes, so that we set the prices exactly at your cost.

Now, what if those costs, which translate into prices for the CLECs, are too high for them to compete because of intermodal competition? Is that a fair result? This is, of course, a hypothetical. I don't know that's the case, but if that is the result, is that fine because other modes of competition are the preferable ones?

A. Right, because that is not -- that is not something that would confer any advantage on Verizon. Verizon would be in the same boat with its CLECs. It's got a network that it's evolving forward as efficiently and as smartly as it can, but let's just assume, as you say, that the cost structure of wireline telephone services is just too high, that IP telephony over the cable networks and cable telephony and wireless telephony just all have lower cost structures. Then that's fair in the sense that we've learned something about the future of wireline competition, in the hypothetical where it just happens to have a higher cost structure, it's not going to survive. But the unfair thing would be to artificially prolong its survival out of the pockets of any one wireline carrier.

And so what would happen if the prices were set exactly at costs and those costs were just higher than cable or wireless is that CLECs would make smart decisions and wouldn't waste resources jumping into that market. They would look at other markets, other places to deploy their resources. If UNE prices are set too low, on the other hand, they may say, Look, there's no way that we could build a new network and provide wireline telephone service. We're in this world where everything else is cheaper. But, hey, look, we can use the incumbent's network at below cost, so let's jump in and provide wireline service anyway. That would be a waste of their resources and that would be unfair to the company that has to maintain the network at below cost.

Q. But if we set them just right and that turned out to be not as competitive as the other modes, then would that drive Verizon to try to strike deals that were below those costs? Because, at a certain point, if the wireline industry were, in fact, just plain higher than -- rather than go down the drain fast, wouldn't you want to negotiate contracts for lower prices?

A. I mean, I think that if you were in a situation where all your customers were deserting you, the first thing you would do is stop investing in your network, because unless you saw a path to a lower cost structure and being competitive, then you would just say, Look, we're in an industry that's in decline, let's not flush any more money down the drain, but what we have is working.

And what would happen in a competitive market? You would take what prices you could get to -- that were above your operating costs, let's be very clear about that. You need to -- otherwise, you just shut down. But if you can pay for the electricity, if you can keep running the network, if you knew at some point you were just consuming the assets, weren't investing any more, yes, that's what you would do.

You know, if you have a building slated for demolition and it's empty, and someone comes to you and says, I'll pay you $50 if I can use the building as an art studio until it's demolished, you'll take the $50, even if the rental rate five years ago was $100,000, but that's a very extreme situation.

In order for a company to go below its forward-looking incremental costs, it would have to be in a -- you know, its total forward-looking incremental costs, not just its operating and maintenance costs, but the full cost of capital depreciation, everything, it would have to be in a situation where it knew that the assets were at the end of their useful lives and that was foreseeable, where it was not investing further and where it was quite clear that it was going to exit the market, but up until that point, I think that -- so in the context of your hypothetical, yes, they'd cut lower deals if they knew this was the end of the road.

Q. But could it also be the case that the hypothetical would hold true in some areas, but not others, of a company's footprint?

A. I mean, you know, this is -- without having any particular knowledge, just speculating, I want to be clear that that's all I'm doing here, I certainly could imagine some very high-cost areas where wireline telephone service is no longer the efficient way to provide communications services, where you might have a fixed wireless or mobile wireless as a much cheaper alternative.

There may be particular exchanges or particular areas of the country -- no wireline telephone provider serves the Hopi Reservation, and none will, because there are cheaper technologies that would come in. Let's suppose there was a legacy wireline network there. Then I suppose, if someone wanted to come operate it and were willing to just pay a little bit above the costs of keeping the lights turned on, you know, the carrier would be willing to sell off the exchange or lease it for that very cheap rate, because you're losing customers to the cheaper wireless.

So I do believe that it's possible. But the important thing here is that that that is actually a good outcome, a very good outcome, because what it's saying is better technologies have come along that are providing these services to consumers more cheaply, and at that point there's no need at all for any kind of regulation on the network that is being pushed out of the market because its own incentives will drive it to cut prices, to cut deals.

Q. As an economic matter, although that doesn't address certain universal service issues if not everybody's, say, getting that wireless, but that's another subject.

A. Oh, and obviously that's the $64,000 question there; right?

Q. And then, on that same subject, in terms of what is meant by full competition or that the cost of capital should be based on full competition, at least that's Verizon's position, does that mean full competition of the wireline system or does it mean full competition, including intermodal competition?

A. Well, at least -- I can't testify as to what specifically Dr. VanderWeide had in mind, but my own personal view is that it means any competition, intermodal and wireline, anything that puts pressure on the prices of the carrier, puts pressure on its investment decisions, on its service quality, on its future demand levels that it faces, these are all things that are created not just by wireline competitors, but by intermodal competitors. So I at least personally think that you would want to take into account all kinds of competitors.

Q. All right. A different subject. You assert that Verizon's model does not use embedded costs; it uses --

A. Right.

Q. -- existing constraints, such as mountains and lakes. Is that correct?

A. And even -- you know, even more than that, it uses existing equipment.

Q. Well, this gets to my question, and maybe you can just help me think it through visually. If I think of equipment and lines that run from here to the state capitol -- just for your information, there's a steep bank, a lake, and a steep bank up.

A. Okay.

Q. And it's about a mile as the crow flies, but it's three miles to drive it, and Verizon doesn't serve it, anyway. But if it did -- if it did, what I understood you to say is that the model should take into account that there's a steep bank, a lake, and another steep bank, but that the model does not -- here's where I'm confused -- does not -- is not accounting for the actual cost of the poles that go the three miles around the road and up to the capitol. Can you just help me with this distinction?

A. Yes, let me -- there are two issues here. Let me start with, if I could, just to get it to one side, the question of embedded cost versus actual assets.

The fact that Verizon is using in its cost model going forward a switch that's in place today or that was in place last year doesn't make it an embedded cost model, because it's not using the book value of that switch to generate capital and depreciation of costs. What it's using is a forward-looking value of that switch, which may be quite a bit lower than book.

So the fact that current facilities are being used in the network as it's modeled going forward is different from saying that book costs are being used in the model, in fact, very different.

So when I say in my rebuttal testimony that Verizon's network -- that Verizon's model is not an embedded cost model, that's what I mean, and I try to draw a distinction between a model that uses actual facilities and a model that uses embedded costs.

Then there's the second issue about what they actually do in the model.

Q. Okay. Before you go to that second issue, though, let's take the switch. You're saying you're not using the book cost of the switch; you're using the forward-looking cost of the switch. But supposing there is a new and better switch to be had and no one would ever buy the current switch, what does the model do in that instance, or what should a model do in that instance?

A. Well, I think that a model needs to do the cost calculation going forward. Based on -- taking into account the purchase price of this new and better switch and the operating and maintenance costs of the new and better switch, is it worthwhile to replace the existing switch or to keep it, and that's really the question that any firm asks itself going forward.

Q. So there's a sunk cost, but you're saying -- but if there's a sunk cost, what is your sunk cost? When you decide whether it's worth it to put into the model the new and better switch, you say, Well, we've already got a switch, but how do you value that existing switch?

A. Well, you -- the existing switch, in order to -- the calculation that you would do is to -- let's say that it cost $5 a month -- or $5 a day to operate the existing switch, and only $2 a day to operate the new switch. When you look at that comparison, you don't automatically buy the new switch. You also have to factor in over the -- however much longer you think that the old switch will be usable, the purchase price of the new switch. So you're actually assuming away the fixed costs of the old switch completely and just focusing on the short run -- I mean, this is how a firm in the real world would do things.

I've already paid for that switch. I can't get that money back. Let's make that assumption, let's make it a true sunk cost. I can operate it for five bucks a day. But by the new switch, I get my operating costs down to two bucks a day, but I have to pay $10,000 up front. Hmm. Over time, that adds up -- over the short term, that adds up to a lot more than five bucks a day. I'm better off sticking with my old switch.

And the question that you always want to ask yourself is at what point does it make more sense to, looking forward, incur the purchase price of the new switch in order to get those lower operating and maintenance costs and at what point are you better just sticking with your old assets.

Q. And your answer might -- if you were looking at the next three years, the payback period might not be worth it, but if you were looking at the next 10 years, and that's how long you thought the new switch would last, maybe it would be?

A. Yeah, and the problem there is there's another level of -- there's another question that factors in. There's a well-known phenomenon in industry called rational delay, and particularly in a fast-moving industry like telecommunications, you have to also be thinking about the fact that, five years from now, even that new switch won't look too pretty. So you might wait even longer than you otherwise would to buy a new switch, because you don't want to incur that interim sunk cost of a technology that's going to be supplanted again two, three years down the road.

Like when you have an old car and you see a great new model come out and you think, Well, that's a much more efficient car, I'm going to buy that hybrid, it will get me much better gas mileage, but then you read about how, three years down the road or two years down the road the hybrids are going to be much, much better, they're going to be more reliable, they're going to be even better gas mileage. You hang on to to the old car during that interim generation of technology and wait two more years.

That happens a lot in industry where technology is moving quickly. So now, in particular, where the question of switching technology is certainly an open one and whether we're going to have circuit switch or packet switch or some mix in how things are going to be done into the future is an open question, it's particularly rational to stick with the existing technology, rather than to assume that the new technology is going to be what is the state of the art more than three years out or more than some reasonably foreseeable horizon.

Q. All right. I don't know if I should disclose the fact that I have a 1970 Volvo, but --

A. I drive a 1965 Ford.

Q. Well, this is telecom, though. Let's see. I think my joke distracted me. Oh, are these kinds of calculations and judgments that we've just been talking about the kinds that are actually going into the model? Is the model -- and are the inputs making this type of judgment, three years, five years, replace, don't replace, that kind of thing?

A. Yes, now, the cost panel is going to be better able to address these element-by-element, but I can say what I do know is that this is exactly the kind of thinking that goes into place when the engineers are sitting down and deciding what to do with the network over a planning period. The first question is how long should the planning period be, and it's actually -- turns out to be quite standard in telecom, if you ask across a variety of sectors, long distance carriers, cable operators, wireline telephone providers, even the cellular guys, three to five-year engineering planning periods are very standard.

And one of the reasons is that that is a period around which one can, with some reasonable degree of certainty, see what the technological paths will be. And one of the reasons that you don't wholesale replace immediately, you know, Okay, we see what things will be like for the next three years, let's buy it and start replacing it right away, is a recognition that the calculation says replace certain things now, certain things later, and we may want to even delay a little bit more, not because we're inefficient, but exactly the opposite. Things are changing so fast, we don't want to strand costs of an interim generation of technology.

And this is the kind of thinking that's going on when you look at the fiber-copper mix or the percentage of GR 303 interfaces that are in place in the network. These are all things that are calculated with an eye to what makes sense economically insofar as we can reasonably predict the technology path. That's exactly what's going on.

Q. Okay. I interrupted you when you were about to go to a point two, and I don't know if you covered it or not.

A. I was just going to go back and talk about what the model does with respect to those poles and rights of way around the lake getting to the state capitol.

So modeling those going forward, what the VZ Cost model asks and what the engineers sit down and ask is what is the efficient technology for getting that distribution plant from the central office to the state capitol. Going forward, what is it that we would put in place for upgrades for replacement plant for new builds, and -- or you know, what is the way, would we go underground, would we go above ground, what is the least-cost way. That's what we're going to do going forward as we evolve the network, that's why the network will look different going in the future, even while a lot of the parameters stay fixed.

But what the model is doing is assuming that that better way of reaching the capitol is actually in place, fully in place, not just on some replacement posts or not just on some upgrade sections of the network, but through the whole network, and it takes the operating efficiencies of that new plant and takes those into account, but what it doesn't do is say, Well, knowing that technology is going to change later, what are the higher costs of capital and depreciation that would be in place if we really were going to replace everything. So it kind of gives you the benefits of these lower operating and maintenance costs going forward without the full up-front purchase cost and capital and depreciation that would be needed over the planning period to really do that.

Q. All right. I think that leads to my last question. When you used the term mix and match a couple times, once in a way to say that Verizon's model is actually conservative and underestimating real costs because it was mixing and matching that way, but then, in another place, Exhibit 2-T, page three, on line 21, you said it's economically incorrect to mix and match new supposedly more efficient routes with the rights of way costs for existing routes.

And maybe you can just clarify for me again -- oh, well, first, why should a model mix and match in the first place? It seems to me you would just simply try to get it to be the most accurate you could, but maybe sometimes you have to mix and match, and if you do, it should be conservative, I think that's what you were saying. But then why is this other way of mixing and matching not a good way to mix and match?

A. Yeah, let me clarify. I mean, if I were sitting back, and I've done this with folks from Verizon and said, Well, you know, a cold economic eye cast on your model suggests that it's not an efficient model because you are leaving some costs out of it if we were really doing forward-looking replacement of the network. What you guys should be doing is not adding those costs on, because you're not actually replacing the network; you're evolving the network, you're upgrading it, you're fixing it, you're putting new technology in as you go forward efficiently, but then what you should do is model not -- I forget what the exact percentages are, but 54 percent copper, 46 percent fiber throughout the whole network, but that mix where it's actually in place, and then when it's all copper elsewhere in the network, you should be modeling the costs based on that. You should take the most accurate picture you can going forward.

What Verizon has done is to say, Well, we're going to be more aggressive than that. We're just going to assume that the new technology is in place. Why? Really because -- well, TELRIC, I think, has a number of permissible interpretations, in many states, and in some pronouncements by the FCC, but not others, certainly, you can go back and forth forever finding quotes on both sides of the issue, the FCC has seemed to argue that the new technology -- or certain states have said the new technology must be put ubiquitously -- assumed to be ubiquitously in place through the network.

So it's in an effort to be compliant not with correct economic principle, but with aggressive interpretations of TELRIC that I think Verizon has --

I say conservatively -- just assumed that the going forward mix of technology that's used for incremental changes is, in fact, put throughout the network. And that understates costs.

What I -- and the reason the mix and match there is because it gives the benefits of that new technology without what it would really cost to put it all in place, the capital depreciation costs.

My concern with models like the Hatfield model, the MSM model, the purely hypothetical models that purport to construct a network based only on existing wire locations, or wire center locations. And you know, Dr. Tardiff, I know, will be here next week and he has some very pointed things to say about this, very detailed things to say about this.

But the problem with those models is they assume a complete rebuild, but -- and assume the lower operating costs of this completely efficiently built network, but don't take into account the consequences of one of the model's own assumptions. The model's own assumption is regular entry by new firms with the most efficient technology and a periodic need to replace or to assume that you have replaced all of your network plant.

Well, what happens in that case is that when you build a new network, if you are that hypothetical new entrant, you're thinking, Well, down the road yet another entrant's going to come in and make me replace everything. I better make sure I've recovered all my costs of this nice hypothetically efficient network by the time that happens. So you need very high costs of capital, because investors are going to be very worried if investing in a company that can be forced to leave costs on the table down the road, and very high depreciation rates embedded while you are the market leader to capture the costs of building that network, because you know three years from now someone else is going to come in.

So if you're really going to have a model that has this full replacements cost, you need to incorporate -- and this is where I argued for consistency -- not just the efficient operating and maintenance costs of the new technology, and not even just the purchase price, but what it will cost you to raise the capital to buy that equipment and what kind of depreciation rates you'll have to put over time, put -- have to have over time, the short period of time until someone else comes in and makes you rebuild again.

Q. And I'm following your point about consistency, but in one way it sounds as if you're saying, Well, if you're going to be unrealistic on one assumption, you've got to be consistently unrealistic on another assumption, but one way, it sounds almost to me as if you're saying it's two wrongs. I mean, that is, twice over, you're going to assume that this network is replacing itself and raising capital faster than it really will.

A. Yes.

Q. If that's the case, then I'm not sure -- it seems like perhaps it's aggravating things.

A. Oh, no, I agree that it would be aggravating things to -- I mean, in some sense, the hypothetical model -- the hypothetical model, if it were done right, according to its own assumptions on all cost parameters, I think would generate extraordinarily high costs and you'd run away from it and you would -- I mean, you would say, Well, we don't want these costs, because they're enormously high, if you really take the model seriously.

Q. Or it's just not the way the real world is going to work?

A. The bigger problem is it's just not the way the real world works. And when Dr. Gabel asked me sort of what I might leave you with, you know, my ultimate concern is that there is a real network here. There is a real network with real engineering plans that are, in fact, being implemented. And nobody denies that there are serious evidentiary questions of how to fill in the inputs of any model you choose, but my argument is that the model should be one that, as best as possible, reflects that real network, that it reflects the actual facilities, the actual plant, the actual routes that that network has and will have going forward over the planning period.

The hard question of what switch prices to use to base the forward-looking switch price on, those are hard questions, but once we start with the premise that we should have a real network and base the forward-looking costs not on a model, because that leads to all kinds of self-reinforcing problems, but the network we have in place, then we can get that at least knowing to what we're trying to value, we're trying to value something that's really there, and then we can fight about what the right price is and the right valuation is.

CHAIRWOMAN SHOWALTER: All right. Thank you.

THE WITNESS: Thank you, Commissioner.

JUDGE MACE: We'll take a 15-minute recess.
(Recess taken.)
JUDGE MACE: Mr. Kopta has asked if he could ask a few questions pertaining to the Commission's questions, and I don't know that that's our typical procedure, but --
CHAIRWOMAN SHOWALTER: Usually we go down the line and then --
MR. KOPTA: Right. That was my anticipation, is once the Commissioners were through, then I would have a chance to follow up and then they'd do redirect.
JUDGE MACE: Okay.
CHAIRWOMAN SHOWALTER: That's what we usually do, so that you have the chance to hear all of the questions before there's redirect.
MS. RONIS: Okay. He's already crossed, though.
CHAIRWOMAN SHOWALTER: Yeah, but we sometimes raise issues that, you know, haven't been explored as much as you would have thought. So it's just a way to have a complete ability for everybody to get their questions out, but you get the last chance.
MS. RONIS: Okay.

JUDGE MACE: Go ahead, Mr. Kopta.

COMMISSIONER HEMSTAD: No.

JUDGE MACE: Oh, I'm sorry. I misunderstood. I didn't realize you had questions, Commissioner Hemstad.

E X A M I N A T I O N

BY COMMISSIONER HEMSTAD:

Q. Dr. Shelanski, I'd like to pick up and pursue a bit further the inquiry of Dr. Gabel. And I understand your comment with regard to his Exhibit 1200 that you don't know necessarily what's behind these numbers. I can translate it into a hypothetical, but summarizing what I understand he was saying, the totaling the price for the port and the Verizon's proposed statewide loop rate, we come to a total of $54 and change, with a retail price for Verizon of $30 for residential ISDN and $50 for business ISDN.

Put simply as a hypothetical, if those element costs are correct, that obviously would create a price squeeze that would make it impossible for a competitor to compete, wouldn't it?

A. Well, not necessarily, because it -- the theory of element pricing is that the element can be used to provide a number of services. Now, let's take the case of -- now, let me be clear.

If Verizon were to lease a loop for higher than the retail rate of the loop, and there were nothing else you could do with the loop, you know, there's voice grade services, that's what you get over your loop, voice grade service is 20 bucks a month and the wholesale price is 30 bucks a month, of course there's a price squeeze there.

But when you have multiple services being provided by a firm over a given set of assets, it's often the case that the price of one of them does not recoup any of the fixed costs or all of the fixed costs of that element, and so the price is less than what one would calculate as what's called the stand-alone cost of providing that service.

And that's actually a fairly typical kind of phenomenon in markets where firms have multiple products, and especially where firms have both regulated and unregulated products, some of which are subject to competition, some of which are subject to regulation.

Q. I understand. Okay. So I take it your view is, then, that the loop, at least for an integrated provider of services, is a shared cost with various services?

A. Yeah, I would have to learn -- I would have to learn more about how integrated loop plant is done in Washington and exactly how Verizon runs that plant, but that would be my basic view, yes, that it's used for a number of services, and the fact that one of them is priced below the stand-alone cost is neither surprising nor of concern to me, as an economic matter.

Q. All right. I think you ended your discussion with Dr. Gabel by saying the focus should be on the element price, rather than the service price. And I thought I understand you to say or I understood you to say that various services of a multi-service provider could be priced below cost, even though, on an average basis, they'd be making a net profit. Is that a fair summary of what you said?

A. Right. I mean, I would certainly be concerned if any service was priced below the short-run marginal cost, so to speak. I mean, that is a matter for concern if it -- suppose that multiple services are being provided by the element, and yet there's one of them that is being priced at below even the, you know, operating and maintenance costs of providing the service, the power, everything else that's -- then I would be greatly concerned, but as long as, in aggregate, those services are recovering the cost, I wouldn't see any concern for a predatory kind of behavior, and I would expect that if Verizon was providing a regulated service and then was also providing a service like ISDN, which is a service that has alternatives, which is increasingly subject to competition, not everywhere, but in a lot of places, it would not be surprising for me to see those services be ones that aren't recovering all of their fixed costs.

Q. Okay. And I'm sure you would not consider yourself an authority on, well, for example, state law, but I propose to you that I understand Washington State law requires, on the black, that the pricing of a competitive service be priced above cost. Would that change your answer at all?

A. I guess I would just need to know what they mean by cost. And you know, this is a big debate. In California, there are interpretations that it means total cost. As a matter of federal law and Supreme Court law, it's averaged variable cost. So I guess I'd have to know what the state law on cost was.

Q. I'll agree with you that there's plenty of debate on how you define cost.

A. Right.

Q. That's all I have. Thank you.

A. Thank you, sir.

COMMISSIONER OSHIE: No questions.

CHAIRWOMAN SHOWALTER: I just want to explain to Ms. Ronis that Mr. Kopta's and others' questions would be limited in scope to the issues that we have raised, and the reason is that our questions are really neither cross nor direct, but the witness' answers sometimes have a strong element of direct, in which case some kinds of cross is desirable, and we have done it sometimes where you would now go, but then that prompts more questions, so --

MS. RONIS: I understand.

CHAIRWOMAN SHOWALTER: -- it seems to be a good way to do it.

MS. RONIS: That's good to know. So that going forward for this proceeding, it would be the same rule?

CHAIRWOMAN SHOWALTER: Generally, that's what we do, yes.

JUDGE MACE: Go ahead, Mr. Kopta.

MR. KOPTA: Thank you.

R E C R O S S - E X A M I N A T I O N

BY MR. KOPTA:

Q. Dr. Shelanski, do you recall a discussion with Dr. Gabel in which you were talking about the lack of innovation when CLECs use UNEs from Verizon?

A. I was talking generally about, right, the lack of innovation -- comparative lack of innovation when firms use a common set of assets versus separate sets of assets.

Q. Well, let me ask you, and by way of clarification, would you agree with me that it is possible that a CLEC that leases an unbundled loop from Verizon, for example, but provides its own switching would still have the incentive to innovate with respect to its investment in the switching, even though it's using a loop from Verizon?

A. Yes, certainly, sure. I mean, the innovation incentive would go insofar as, you know, obviously within the technological constraints of having to interface with another piece of technology, absolutely.

Q. But let's assume a UNE-P situation. You understand what UNE-P is. Might it also be possible that the CLEC would seek to use capacities or abilities of a switch differently than Verizon to innovate and to provide a service that would distinguish it from the services that Verizon is providing on a retail level?

A. Yeah, but at that very high level of generality, one could imagine there's some scope for innovation there. But the point is that, as a comparative matter, it's a much narrowed scope compared to if that CLEC were, you know, providing its own facilities. And just by example, there's only so much you can do with the capacities of, say, Verizon's switch that -- there are only so many parameters in which you might innovate.

If you have your own switch, your own configuration of the network you can build, you might do it very differently. I mean, even looking at some of the hypothetical network models that have been put forward, I mean, if really that is the way to go, if those are innovative ways forward for building a network, prices that induce the CLEC to use the ILEC's network would be forestalling that -- or artificially, let me be very clear, that were too low that artificially induced the CLEC to use the ILEC facilities would be forestalling the very innovation that some of the hypothetical models claim is the correct way forward.

And sure, to the extent that a CLEC uses its own switch and only leases the loop, that's better than UNE-P from the standpoint of innovation. But, you know, and even on UNE-P, innovative retailing, maybe even innovative ways of trying to use -- trying to provide various capabilities, various interfaces, these all might be possible, but the more you use the existing plant of the ILEC, the less scope there is, I think, as a common sense matter and as an economic matter for the competitor to innovate.

MR. KOPTA: Thank you. Those are all my questions.

JUDGE MACE: Ms. Ronis.

MS. RONIS: No redirect.

JUDGE MACE: I think there's an outstanding AT&T cross exhibit for this witness.

MR. KOPTA: There is, and unfortunately, my usual habit is to forget to move to admit them. I would move for admission of Exhibit 3.

JUDGE MACE: Any objection? I'll admit that exhibit. Thank you, Dr. Shelanski. You're excused.

THE WITNESS: Thank you, Your Honor.

JUDGE MACE: Well, we're a little behind, based on the sort of proposed schedule we had, but the next witness is Dr. VanderWeide.

Whereupon,

DR. JAMES H. VANDERWEIDE,

having been first duly sworn by Judge Mace, was called as a witness herein and was examined and testified as follows:

JUDGE MACE: All right. Please be seated. Mr. Berry, are you going to be introducing this witness?

MR. BERRY: Yes, Your Honor.

JUDGE MACE: All right. Everybody ready?

D I R E C T   E X A M I N A T I O N

BY MR. BERRY:

Q. Dr. VanderWeide, would you please state your full name and your business address?

A. Yes, my name is James H. VanderWeide, and my business address is 3606 Stoney Brook Drive, Durham, North Carolina.

Q. Dr. VanderWeide, did you submit prefiled testimony in this proceeding?

A. Yes, I did.

Q. And does that include direct testimony, dated June 26th, 2003?

A. Yes.

Q. And do you have that in front of you?
A. Yes, I do.
Q. Was that testimony prepared by you or under your direct supervision?
A. Yes, it was.
Q. And does it include exhibits?
A. Yes, it does.
Q. And for the record, those -- the direct testimony and the attached exhibits are numbered as Exhibits 101-T, 102, 103, and 104. Dr. VanderWeide, did you also file reply testimony in this proceeding?
A. Yes, I did.
Q. And is that testimony in front of you?
A. Yes, it is.
Q. And was that testimony prepared by you or under your direct supervision?
A. Yes.
Q. For the record, that testimony has been numbered as Exhibit 105-TC.
JUDGE MACE: The C designation is for confidential.
MR. BERRY: I see. Thank you.
Q. And Dr. VanderWeide, did you also file rebuttal testimony in this proceeding on May 12th, 2004?

A. Yes, I did.
Q. And was that testimony prepared by you or under your direct supervision?
A. Yes.
Q. And did that include exhibits?
A. Yes, it did.
Q. For the record, the rebuttal testimony has been numbered 106-T, 107, 108, and 109. Dr. VanderWeide, with respect to the three pieces of testimony that you have submitted in this matter, do you stand by the questions and the answers that you provided?
A. Yes, I do.
Q. And if you were to ask those same questions today, would you provide the same answers?
A. Yes, I would.

MS. RONIS: Your Honor, there were two different rounds of errata on Dr. VanderWeide's testimony. They both relate to his rebuttal testimony. I don't know if you wanted to mark them now. One was filed with the Commission yesterday.

JUDGE MACE: That errata has been incorporated in the books that the Commissioners have. So what was provided today has not.

MS. RONIS: Okay. So we don't mark those as separate exhibits?

JUDGE MACE: You don't have to mark anything as separate exhibits. If it is incorporated into the exhibit, you can provide the document, the page that you're going to ask to be incorporated in place of another page.

MS. RONIS: We do have copies of --

JUDGE MACE: I'm assuming, and I've reviewed the filing, that it is mainly typos and slight word changes.

MS. RONIS: Correct. And the one today was to address a concern AT&T had about us not designating enough of his testimony as AT&T proprietary, so we replaced a page and made the AT&T proprietary bracket cover more information.

JUDGE MACE: If you could supply us with the changed pages.

MS. SMOTHERGILL: There's a public and a proprietary version for each.

JUDGE MACE: All right. And you have one for each of the Commissioners; correct?

MS. SMOTHERGILL: Sure.

CHAIRWOMAN SHOWALTER: What exhibit is this?

JUDGE MACE: This is 106-T. The upper right-hand designation is not correct.

CHAIRWOMAN SHOWALTER: We need one more set.

JUDGE MACE: I just want to make clear for the record that you have a designation of JHV-9 in the upper right corner, and that's not the correct designation by my list of exhibits, but the actual number for this exhibit, for this rebuttal testimony is 106-TC, and so it would replace pages in 106-TC. I don't think I -- did you provide actual pages?

MS. SMOTHERGILL: No, we just have the correction.

JUDGE MACE: Okay. Thank you. Everybody have in hand the corrections? Anything else? Do you offer these into evidence at this time?

MR. BERRY: Yes, we do, Your Honor.

JUDGE MACE: Is there any objection to the admission of proposed 101-T through 109?

MR. KOPTA: No objection.

CHAIRWOMAN SHOWALTER: I'm just going to caution -- usually we actually go to the testimony and hand-write the difference or we get a page that has the difference so that we don't make mistakes in dealing with confidential material, so I would suggest that if anyone is going to ask about these portions or if you hear us about to ask about these portions later on in the books that we've already had, just warn us.

JUDGE MACE: I heard no objection to the admission of the exhibits. Thank you. Do you tender the witness for cross-examination?

MR. BERRY: Before that, Your Honor, we'd ask Dr. VanderWeide to briefly summarize the testimony and recommendations that he's made in this proceeding.

JUDGE MACE: Dr. VanderWeide, I'm going to be timing you. Do you want me to give you a little warning 15 seconds ahead of time, if that's necessary?

THE WITNESS: That would be fine.

JUDGE MACE: All right. I'll do that.

THE WITNESS: I have made some effort to keep it under three minutes, so I believe it will do that.

JUDGE MACE: Go ahead.

THE WITNESS: Okay. I began my appraisal of the weighted average cost of capital in this proceeding by considering the basic economic principles of UNE rate-making, as enunciated by the FCC in the Local Competition Order and the Triennial Review Order.

Basically, the FCC has mandated that the UNE cost of capital be based on forward-looking economic costs rather than historical or embedded costs, that it reflect the risk of operating in telecommunications markets with facilities-based competition, that it provide incentives for investment in the network and that it provide an opportunity for Verizon NW to recover the costs it incurs in providing, on a forward-looking basis, UNEs, including its cost of capital.

It's my belief that my 15.98 percent recommended cost of capital is the only cost of capital in this proceeding that satisfies the FCC's basic economic principles of UNE rate-making. In particular, my cost of capital reflects the market cost of capital of comparable risk companies operating in competitive markets. It recognizes the competitive and regulatory risks of investing in network facilities under the TELRIC standard, and it allows Verizon NW and competitors a reasonable opportunity to earn their forward-looking economic cost of providing service.

In contrast, the other parties' cost of capital recommendations are based on their assumptions that Verizon NW is a low-risk monopoly provider of UNE service, and that Verizon NW does not face any risk that it will not recover its costs under the TELRIC standard.

Their cost of capital recommendations would provide no incentives for either Verizon NW or the CLECs to make investments in network facilities. The reasonableness of my cost of capital recommendation is further confirmed by comparing my recommendation to the cost of capital that competitive companies, such as AT&T, actually use to make internal investment decisions in local network facilities.

This comparison is especially important because AT&T operates in a competitive market, and the Triennial Review Order requires that the cost of capital reflect the risks of a competitive market. AT&T --

JUDGE MACE: Fifteen seconds.

THE WITNESS: AT&T's compelled response indicates that my 15.98 percent cost of capital recommendation is a conservative estimate of the cost of capital competitive companies use to make network investment decisions.

MR. BERRY: We tender the witness for cross.

JUDGE MACE: Thank you. Mr. Kopta.

MR. KOPTA: Thank you, Your Honor.

C R O S S - E X A M I N A T I O N

BY MR. KOPTA:

Q. Good afternoon, Dr. VanderWeide.

A. Good afternoon.

Q. I will try not to mispronounce your name.

A. You did an excellent job.

JUDGE MACE: Of mispronouncing it?

THE WITNESS: No, I didn't mean that.

Q. Since we haven't met before, I was guessing at the pronunciation. As you can imagine, Kopta is not the most common name, either, so I'm particularly sensitive to mispronunciations.

A. I appreciate the care you took to get it right.

Q. Okay. If you would, please, turn to your direct testimony, which is Exhibit 101-T, specifically page six. And on page six, I would like you to look at the sentence -- actually, the two sentences that begin on line eight. And if I may summarize, I understand your testimony to be that if the cost of capital input in the UNE cost studies that this Commission approves is less than the amount that you recommend, that incumbents will have no incentive to invest in their telecommunications networks. Is that accurate?

A. It's partially accurate. The economic signals that I'm referring to would refer to both incumbents and CLECs, and so not only would it not provide an incentive for the incumbents to invest in their network, but it wouldn't provide any incentive for CLECs to invest in network facilities. They would have an incentive instead to lease UNEs from incumbents, even though they perhaps could be more efficient providers if they provided UNE service on a facilities-based basis.

Q. But Verizon, regardless of what happens in this proceeding, would still have an incentive to invest in its network to serve its retail customers, wouldn't it?

A. That would -- that is beyond the scope of my testimony, because it relates to -- in this proceeding, because it relates to whether their rates are compensatory for retail service. And I haven't made -- I'm not testifying on that subject in this proceeding.

Q. Well, but regardless of the economic incentives that they might have based on that sort of analysis, isn't it your understanding that, to satisfy their obligations to serve their customers in the state of Washington, that they would continue to have an incentive to invest in their network?

A. There -- as I understand your question, there would be two parts to the question. One would be kind of their regulatory obligations, which I am not testifying to, because I'm not an attorney. I'm testifying with regard to economic incentives, apart from any regulatory obligations that they might have. And as long as Verizon does not have an opportunity to recover its investment and expenses, including its cost of capital, it has no incentive -- economic incentive to invest in the network.

Q. Is Verizon investing in its network as we sit here today?

A. Verizon is maintaining its network, but it has significantly decreased its investment in the network over the last three years.

Q. But it is continuing to invest in its network currently?

A. It's continuing to invest, but at a significantly reduced level from what it was in the past.

Q. And you ascribe that to the current cost of capital for UNEs?

A. I would certainly ascribe part of it to the fact that Verizon -- well, the fact that Verizon is not earning its cost of capital. And part of the reason for that would be because UNE rates have been set below the cost of providing UNE service.

Q. Switching to CLECs, there are CLECs in the state of Washington that have built their own networks, are there not?

A. There certainly are cable providers that have -- that have made investments to provide telecommunications service, and it's my understanding, although I'm not testifying to the actual level of competition, that there is some facilities-based competition from CLECs, as well.

My testimony is that, however, one doesn't have to look to the actual level of competition, because the Triennial Review Order requires that the cost of capital be based on the assumption that the market is competitive.

Q. Right, and that's not the particular angle that I'm working at here.

A. Okay.

Q. It's just that -- wouldn't you agree with me that CLECs have a continuing incentive to construct their own networks, given that they have been doing that, even when the cost of capital per UNEs is set at the 9.76 percent that the Commission established in the last case?

A. Well, I guess, to be specific, certainly there's one CLEC that would not have an incentive that I know of. I don't know what other CLECs consider their cost of capital to be, but AT&T certainly would not have an incentive, because they have indicated that their cost of capital is above.

JUDGE MACE: Well, I just want to jump in here, just so that you don't say a specific number, okay.

THE WITNESS: I had no intention to say a specific number.

JUDGE MACE: It was confidential and I just wanted to make sure we didn't get into that problem.

THE WITNESS: Right.

CHAIRWOMAN SHOWALTER: So are all the witnesses aware of what is and isn't confidential? In general, if it's not confidential, we don't want it to be confidential, or we like to get stuff out on the record, but if it is confidential, then either don't mention the number and just be qualitative, or if it's important, point us to a number and then we can understand what you mean.

THE WITNESS: Yes, that's an excellent idea. The number is discussed in my testimony near the end of the testimony, of my rebuttal testimony, that is.

JUDGE MACE: I think it's on page 92.

THE WITNESS: Okay. Yes, starting on page 89 of my copy of the testimony, I have a section entitled Tests of Reasonableness.

CHAIRWOMAN SHOWALTER: If you can point us to a line number, a page and line number?

THE WITNESS: Yes, on my copy, it's page 89, line -- starting at line nine, and going on down through the end of that page.

Q. Are you aware that AT&T has constructed a network in the state of Washington?

A. I haven't studied what AT&T has actually done.

Q. Okay. Would you accept, subject to check, that AT&T has installed some of its own switches, as well as fiberoptic rings in the greater Seattle metropolitan area, as well as in the Vancouver, Washington metropolitan area?

A. I would accept that, subject to check, and I would assume, then, that they would expect that they could earn a return exceeding their cost of capital, which is -- which I've indicated is on page 89 of my testimony, that they would -- if they -- certainly, in that instance, they must have thought if they

could build -- if they could install a switch, that there would be particular customers for which they could earn a return greater than their cost of capital.
As a general matter, however, if they can obtain UNEs for all customers that reflects a cost of capital that's less than their own cost of capital, that factor alone would give them an incentive to lease UNEs. So there must have been other things that weren't equal than the cost of capital.
Q. If you would, please, turn to page 29 of Exhibit 101-T.
JUDGE MACE: Which page was it, Mr. Kopta?
MR. KOPTA: Twenty-nine.
JUDGE MACE: Thank you.
Q. Specifically the sentence that begins on line 19, which I will read. Indeed, many of Verizon NW's competitors are in the process of developing their own facilities for providing local exchange service to Verizon NW's most profitable customers.
A. Yeah, I'm sorry, I was still looking at the rebuttal testimony that we had just referred a page to, so I'm going to turn to my direct testimony. It was page 29?
Q. Line 19.

A. Nineteen, okay. Yes.
Q. Do you know who those competitors are?
A. I have -- my analogy is based on the testimony of Company Witness West, and that would be my knowledge base.
Q. So you don't have any independent knowledge of the level of competition that's developing in Washington?
A. No, I do not.
Q. Now, if you would turn to page 36 of Exhibit 101- T. And I'm really referring pretty much to the first full Q&A on that page. In both the question and the response, you use the term unregulated companies. And by unregulated companies, do you mean competing local exchange carriers, or CLECs?
A. I was referring more generically here to any unregulated company operating in a competitive market, not just CLECs. Namely, those whose price -- who are free to determine their prices for services in competitive markets.
Q. But you would include CLECs within unregulated companies, as you use that term?
A. Yes.
Q. Okay. Are you aware that this Commission regulates CLECs?

A. Well, then, I guess they -- to the extent they're regulated, then they wouldn't be included in that term. My discussion here was a generic discussion of all companies that operate in competitive markets that are unregulated.

Q. So then, as you use this term, CLECs would not be included?

A. Well, to the extent that they're regulated, this wouldn't be -- this wouldn't reflect their -- necessarily reflect their behavior.

Q. Well, let me see if I can define the term a little bit better than unregulated. It seems to me that you're using this term in a way that means that the company has the freedom to set its prices as it chooses, even under whatever regulation it might be subject to?

A. Yes, yes.

Q. Okay.

A. And is that the extent that you were also referring to in your question of me?

Q. Well, I was being a lawyer and, you know, doing the regulated, what it means, but, you know, trying to understand what you're meaning by your testimony.

A. All right. It had been my understanding that CLECs' prices were not regulated, that CLECs could charge their own prices.

Q. Within certain limits, that's certainly the case, and let's use that as an assumption. Are you aware that Verizon has the same opportunity to seek what is called in this state competitive classification for some of its services in which it would have the same or similar freedom as CLECs to set prices?

A. I'm sure it has the opportunity to seek competitive status. It currently -- the current situation is that it does not have competitive status for all its services and certainly it is -- its UNE rates are regulated, and those are the particular rates that I'm estimating the cost of capital for.

So it's the regulated UNE rates that I'm referring to and comparing those to a situation where a company operates in a competitive market, but its prices are not regulated.

Q. Do I understand your testimony at this point to be that competitors have the ability to charge higher prices for services than Verizon because of the regulatory constraints that Verizon is under?

A. No. My testimony at this point is simply to indicate that companies in competitive markets face the risk that they won't recover their cost of capital, that they'll earn a return that's less than their cost of capital, but unlike Verizon operating under TELRIC regulation, they also have a very significant opportunity to earn a return that's greater than their cost of capital. Indeed, they won't make an investment unless, on average, they expect a return, to earn a return on their investment that's greater than the cost of capital, and they certainly would reflect their cost of capital and their depreciation rates in their prices, reflect the risks of operating in a competitive market in choosing their cost of capital and depreciation that they use to set prices.

Under the TELRIC standard, however, Verizon NW does not have an opportunity to earn more than its cost of capital, but it has a very significant opportunity, almost a certainty, of earning less than its cost of capital, and that is because, under the UNE regulation, rates are supposed to reflect the cost of the most efficient technology, and yet -- and rates are reviewed more often than the depreciation life of the assets.

So to be particular, if assets are depreciated over a period of, say, 17 or 18 years, which they are, and Verizon makes an investment in a new network, and at the beginning its rates are just sufficient to cover all of its costs over a 17-year period, but then after five years, let's say, or six years, its UNE rates are reset to reflect lower costs of a new technology, it will have no opportunity to recover the costs and earn a fair rate of return on the investment it made when rates were first set.

Q. Well, as an economic matter, a company in a competitive market is not necessarily free to charge prices, whatever prices it wants to ensure that it recovers its cost of capital, is it?

A. It is -- it is not necessarily free to set prices, but it is free, when it expects prices to not be sufficient to cover its cost of capital, to not make any investments or to not enter that market, whereas it's assumed in the -- under the TELRIC standard that Verizon will construct the network that's sufficient to serve the entire demand, and it doesn't have a choice of constructing that network.

It will construct that network for the purpose of calculating UNE prices on a forward-looking basis that will serve the entire demand for service and yet, under the TELRIC standard, it doesn't have an opportunity to recover

its cost of capital.
Q. Let me ask you a little bit more specifically. Would you agree with me that CLECs, in pricing their services, their retail services in Washington, in Verizon's service territory, would be constrained by the retail prices that Verizon charges for the same or comparable services?
A. They would undoubtedly -- yes, I would agree with you. They would undoubtedly be constrained by that. And in situations where prices are such that they will not earn a return that's greater than their cost of capital, they won't make any investments, which is an opportunity that, under the TELRIC pricing, Verizon doesn't have.
Q. If you would, please, turn to page 48 of Exhibit 101-T, specifically with the testimony that begins on line 20, in which you state that in their eagerness to promote competition for local exchange service at the residential level, regulators have generally set rates for unbundled network elements based on forward-looking economic cost studies that include -- and you list several things on the bottom of this page and the following page.
My question is whether you include this Commission among the regulators to which you refer in

your answer?
A. Yes.
Q. Do you know what the current statewide averaged loop rate is for Verizon, as established by this Commission?
A. No, I don't.
Q. Would you accept, subject to check, that it is a little bit less than $24 a month?
A. Subject to check. I haven't studied it.
Q. Okay. Do you know what the residential rate is in Verizon's service territory?
A. No, I don't, but I do understand that residential rates have generally been subsidized from intrastate access rates, and that -- and from other services, and that residential rates have generally, as a matter of history in the telecommunications industry, been provided at below-cost rates. That's one of the things that happens when you introduce competition in a world where you have previously subsidized certain services, is you get distortions.
Q. Would you accept, subject to your check, that the residence rate that Verizon charges is approximately $13 a month?
A. I would, and I would conclude from that that residential rates are significantly below the cost of

providing service, subject to the -- to the qualification that Dr. Shelanski discussed, and that is that it's difficult to compare rates for UNEs with rates for services, because UNEs are based on forward-looking economic cost, and that that loop, say, can be used to provide more than one service, not just local residential service, but in the past it could be used to provide toll service, both intrastate and interstate toll service.

And so the real question for a CLEC is not whether the UNE loop compares favorably with the retail rate, the monthly retail rate for local exchange service, but whether you can provide a bundle of services over that UNE loop, including toll services, which would allow you to make a profit when you purchase the UNE loop at cost.

Q. Are you aware of any CLECs providing residential service in Verizon's service territory in Washington?

CHAIRWOMAN SHOWALTER: Can we just interrupt a minute? We have a note from listeners on the conference bridge to say that the witness is not using the microphone. I think we can hear you because your voice carries, but it needs to carry right into the microphone.

THE WITNESS: Has it been turned off?

CHAIRWOMAN SHOWALTER: The red button should be up.

THE WITNESS: Up, okay. It's now up.

JUDGE MACE: And you need to speak directly into the microphone.

CHAIRWOMAN SHOWALTER: Yeah, stay fairly close to the microphone. And listeners, we are sorry.

MR. KOPTA: We now return to our regularly scheduled program.

COMMISSIONER HEMSTAD: Would the witness repeat all of his answers?

JUDGE MACE: Oh, dear.

MR. KOPTA: As long as it doesn't come out of my cross estimate.

Q. I will repeat the question. Are you aware of any CLECs that are currently providing residential service in Verizon's service territory in Washington?

A. As I've indicated earlier, I haven't done a study of CLECs who provide residential service in Verizon's territory.

Q. Okay. Now I want to turn to what I believe you call, but you can correct me if I'm wrong, a cancellable lease concept that you discuss throughout your testimony.

A. Yes.

Q. Would you agree with me that that concept also applies to Verizon retail customers, as well as to UNE customers?

A. It does apply to retail customers. However, in the past, Verizon was the primary provider of retail service, so that, to the extent that a customer had the option to leave if they moved to another state, for instance, it was possible that another customer could take their place. That is becoming less and less of a reality. In fact, the reality is more that customers have an opportunity to obtain their service from somewhere else. So to that extent, in the future, as opposed to when retail rates were set in the past, it will become an issue in retail rate-making, as well.

Q. And indeed, under the full facilities-based competition assumption that you've been operating under in your testimony, it would be more likely, to the extent that competition is that developed, that retail customers would have a choice and could very well choose to cancel their lease with Verizon and take the service from another provider?

A. Yes, and to that extent, retail service will tend to have more and more of the same risks as UNE service.

Q. And I'm going to present two scenarios to you. In the first, the customer decides to take service from a Verizon -- a customer that's currently taking service from Verizon decides to take service from a competing provider, and the competing provider leases one or more UNEs from Verizon in order to serve that customer.

In that scenario, Verizon would still be generating revenues from facilities in which it has invested to serve that customer; correct?

A. It would be generating revenues, but it would be generating significantly less revenues, but its costs would remain the same. So that its return on its investment would have gone down very significantly and perhaps become negative because its costs are fixed, but it now has less revenues.

Q. Well, not all of its costs would remain the same, would it? I mean, there would be some savings in retailing costs, for example?

A. Well, you know, I've always been kind of skeptical about that, because although competition supposedly leads to a savings in retail costs, in fact, what we notice is that there's more retail

costs in a competitive environment.
AT&T ought to be, if anyone is aware of it, AT&T ought to be aware that when MCI and Sprint started to offer long distance service, the cost of retailing went way up. So not only are the network costs fixed, but the marketing costs actually go up, as well.
Q. Well, let's take my second scenario, which is the customer formerly served by Verizon takes service from a provider that doesn't use Verizon UNEs, but uses solely its own network.
In that scenario, Verizon would generate no revenues from the facilities that it invested in to serve that customer, would it?
A. That's correct. That doesn't mean that prices were -- UNE prices were set correctly. It just means that their revenues would be even less in that facilities-based case.
Q. And as an economic matter, would Verizon rather have the scenario where it's selling UNEs, even if they're below cost, to the CLEC to serve that customer, or would it prefer to have the customer leave the network all together and have those facilities lie unused?
A. There's a third alternative, and the third

alternative is that Verizon would prefer that UNE rates were set to recover their full economic cost, including their cost of capital.

Q. Well, that's an interesting third alternative, although I didn't present it to you. Are you saying that you could not give an answer between the two alternatives that I gave you, which would be preferable for Verizon?

A. Well, if -- let me see if I understand the question. If you're asking would you prefer to -- if you're going to lose money anyway, would you prefer to lose less money than more, I guess you would prefer to lose less than more, but the third alternative is that you at least break even, and that's what I thought was one of the requirements of the TELRIC standard.

Indeed, the FCC reiterated, in its notice of proposed rule-making, the standard it had already set in the Local Competition Order is that UNE rates are supposed to provide an opportunity for the incumbent LEC to recover its investment costs, including its cost of capital.

Q. If UNEs are priced below cost, wouldn't that make the CLEC less likely to cancel its lease with Verizon?

A. Yes.

Q. And if those prices were raised to reflect the cost of capital that you're recommending, as well as some other things that Verizon has proposed, wouldn't CLECs be more likely to cancel their lease?

A. Yes, they would be more likely to cancel their lease, but that isn't the only risk that Verizon faces. The risk we're talking about is the risk that, when they make an investment, they will not be able to recover their cost. And in the first instance that you talked about, where prices -- UNE prices were below the cost of providing service, they were guaranteed not to recover their cost and, hence, their risk of losing money was very great and they had no incentive to make an investment.

It doesn't help the company and it doesn't reduce risk to say let's lower UNE rates even further so that you lose more money, because at least the AT&T and the other CLECs won't have an incentive to leave the network. That's not a help.

If you're losing money, the alternative is -- the optimal strategy, from the company's point of view, is not to make any investments in the network, and society would not be benefited by that, nor would the CLECs, nor would the ILECs.

Q. And I understand that that's your position. What I'm focusing on, however, is the cancellable lease concept, which I believe is not tied to the other principles you were just discussing, but is instead based purely on the risk that a company faces that a customer, whether it's a UNE customer or retail customer, can simply cancel its lease at any time and no longer obtain the service or the UNE. Am I correct that that principle does not stand alone?

A. No, you're not correct. It has to be considered in the context of the TELRIC standard, which refers to making a forward-looking investment in a network to provide telecommunications service. And so the UNE cost models are based on the assumption that you have to build the network. You have to build a network that's sufficient to serve all the demand.

And the risk is, on a going forward basis, if you make that investment, you might not earn a return that allows you to recover your cost, including your cost of capital. If you -- there are several ways that that can occur, that you wouldn't earn a return, that allows you to recover your cost of capital. One is that rates would be set below the cost. That would guarantee that you won't earn the cost of capital, and that would be the greatest risk. Another is that you initially set rates in line with the TELRIC standard, which is the environment that I was considering. You initially set rates that seemed to allow the company to recover its costs, but then, because you either re-set rates before the network was fully depreciated or the CLECs cancelled their lease before the network was fully depreciated, the rates, in fact, did not allow the company to cover its cost.

So we began with an environment where the rates seemed to be set under the TELRIC standard to recover -- allow them to recover their cost, but then, because of the cancellation or because of rates being reset on the basis of a new technology prior to the full recovery of the network, they, in fact, were not able to recover their cost.

Q. Let me see if I'm understanding what you're saying, or maybe just asking the question a little bit differently. You've proposed a 12.03 percent cost of capital before the risk additur; is that correct?

A. Yes.

Q. So if the Commission were to adopt that 12.03, would that recover Verizon's cost of capital if the -- if you take the cancellable lease concept out of the equation, if it was no more likely that the CLEC would cancel its lease after that increase than it is as we sit here today?

A. Maybe the best way to answer that is to -- is to emphasize that, unlike rate of return regulation, which allows the company to recover its historical cost, TELRIC regulation is based on forward-looking economic cost. And so if the company builds the network that's envisioned in TELRIC cost studies on a forward looking basis and that network has a life, an expected life, let's say, of 17 years, and if you can now sign up customers for a 17-year term at the rates that were set initially, and rates don't change, you would be able to recover your costs.

If, however, rates are allowed to change downward as they are under the TELRIC standard because of a new lower-cost technology or if customers aren't locked in for the full 17 years of the life of the network, then you will not recover your costs.

So there are two scenarios in which you won't recover -- you won't ever do better than recover your costs, but you could do significantly worse. One is if rates are reset downward before the network is depreciated, and two is if you don't serve 100 percent of the demand, which was the basic assumption on which rates were set.

Q. Well, let's assume that the Commission does establish UNE rates using your full recommended cost of capital. As I understand it, that would stimulate investment by CLECs in their own networks; is that correct?

A. Yes.

Q. Okay. And if that were to happen, then wouldn't you expect that CLECs that are currently leasing UNEs from Verizon would cancel their leases and use their own network facilities?

A. Some of those CLECs may use their own facilities and, from an economic standpoint, that would be absolutely fine. That's what UNE rates are designed to do, is to encourage the most efficient provider to provide telecommunications service. So if the CLECs can do it at a lower cost, they should provide -- if they can provide facilities-based service at a lower cost, they should do it. And society ought to be happy about that. If, however, we set UNE rates below the cost of providing service, and specifically with regard to my testimony, if we set the cost of capital so that we don't reflect the risk, the regulatory risk of the TELRIC standard, then there won't be any incentive at all for CLECs to provide -- to become facilities-based providers even if they are more efficient, and there won't be any incentive for the ILECs to invest in their own networks.

Q. Would Verizon avoid any costs when the CLEC migrates off of Verizon's network to serve its customers using its own network?

A. In the forward-looking world of TELRIC, they would build a network based on a certain price, and that price was designed to allow them to recover their cost over the life of the network, say 17 years. When the CLEC left, their cost would stay the same, but they would lose the customer, and so their profits would go down.

That's why, in competitive markets, companies would not make an investment in those facilities unless the cost of capital were higher and they were able to set prices that reflected not only the underlying cost of providing the facilities, but reflected also the likelihood that some more efficient CLECs would leave the network.

Q. But if, as you say, the costs remained the same and Verizon becomes less profitable, wouldn't that stimulate Verizon to seek to raise its own prices however it was able to do so?

A. I don't understand the question. Which prices would Verizon be stimulated to increase?

Q. Its retail prices, and its UNE prices, I suppose, but --

A. Well, it wouldn't have the opportunity to raise its UNE prices, because they're regulated, and so are its retail prices.

Q. Although Verizon can seek to have its retail rates increased?

A. Well, it can seek to have its retail rates increased, but if its UNE rates are below cost and, hence, its competitors can provide retail service at a lower cost than Verizon Northwest can, it certainly can't raise its retail rates, because it would lose even more customers because the competitors can offer service at a lower cost than they can, due to the below-cost UNE rates.

Q. Well, actually, I was referring to our previous discussion, in which we assumed that the Commission had set UNE rates at the rate that Verizon believes would be fully compensatory?

A. Yes, and that's why I'm suggesting that you have to set -- you have to have a risk premium that will be sufficient to allow Verizon to recover its actual cost of capital, so that if the cost of capital is, say, a 12 percent, you might have to set the UNE rates based on a cost of capital of 15 or 16 percent under the TELRIC standard to give them, the company, an opportunity, if it makes the investment in the forward-looking network, to actually earn its cost of capital, and that's what -- that's what would happen in competitive markets.

Q. And to the extent that Verizon was not able to make its own cost of capital in the retail market, wouldn't that put upward pressure on Verizon's retail rates?

A. I don't understand the question. Did you mean to say to the extent it wasn't able to earn its cost of capital in the UNE market as the preface?

Q. No, in the retail market, because, again, we're taking the assumption that CLECs will have a greater incentive to take customers off of Verizon's network and leave more of Verizon's facilities dark, if you will, and therefore Verizon would need to generate revenues from its existing customers, despite the fact that it has invested in a much larger network.

A. But Verizon won't be able to raise its retail rates in that environment, because the CLECs are offering UNEs at -- are offering retail service using UNEs that are priced below cost. And so the CLECs will be able to provide retail service at a lower cost than what it actually costs Verizon to provide retail service, and it won't do Verizon any good to raise its retail rates.

Q. So --

A. It won't recover any more revenue and it won't earn its cost of capital by raising its retail rates when competitors are providing retail service at below Verizon's cost.

Q. Okay. If I could get you to turn to page 54 of Exhibit 101-T. And beginning on line one, again, you're discussing the higher risk of cancellable operating leases, and stating that it's widely recognized in the financial community, and provide some examples.

And the example that I wanted you to focus on is the second one, which begins on line five, which is that wireless service providers offer lower rates for customers who are willing to sign longer term contracts.

A. Yes.

Q. Verizon also offers lower rates for customers who are willing to sign longer term contracts, doesn't it?

JUDGE MACE: Are we talking about CLECs that are buying UNEs?

MR. KOPTA: No, I'm talking about retail services, or actually tariffed services.

THE WITNESS: I'm not familiar with Verizon's retail tariff rates.

Q. I'm not asking about the rates; I'm just asking whether you were aware that Verizon enters into longer term contracts with some customers at reduced rates?

A. I'm not aware of it, no. I mean, it sounds reasonable, but I'm not aware of it.

Q. So you don't know whether the financial community is aware of it?

MR. BERRY: I'm going to object to the question as vague. I'm not clear on what the it is he's referring to there.

JUDGE MACE: Mr. Kopta, could you be a little more precise in your question?

MR. KOPTA: Sure.

Q. Do you know whether the financial community is aware of whether Verizon offers lower rates in exchange for long-term contracts?

A. At the retail level?

Q. At the retail level.

A. I don't know.

Q. Okay. What's your basis, then, for your knowledge that wireless carriers offer such rates?

A. Because I have purchased wireless phone service and I'm aware of the pricing of wireless phone service. I'm not aware of pricing the retail services in the state of Washington.

Q. Would you expect stock analysts to be aware of that?

A. I think stock analysts would deal at more the national level and would be looking at the factors that affected the company whose stock is sold in the market. To the -- I'm not really sure that they would be aware of retail -- long-term -- I don't think the existence of discounts on long-term contracts for retail services in one state would be of sufficient magnitude on the parent company, Verizon Corporation's profits to come to the attention of stock analysts.

Q. Well, what about whether that's -- do you know whether it's Verizon's practice in any other state or --

A. No, I don't.

Q. Okay. To the extent -- well, let's put it this way. Verizon Wireless is part of Verizon, is it not?

A. Yes.

Q. Is it one of the carriers to which you refer that offer lower rates for longer term contracts?

A. Yes.

Q. From an economic standpoint, can you provide any reason why Verizon, in its wireline operations, would not offer similar contracts for customers, to the extent that they are able to continue to earn their cost of capital and other costs?

A. Verizon would have -- if UNE rates for short-term contracts or if retail rates for short-term contracts reflected the risk of shorter-term contracts, then Verizon would have an incentive to offer lower rates, discounted rates for longer-term contracts because they have lower risk. So then the prices would reflect the risk. Higher prices for short-term contracts, because there's higher risk; lower prices for long-term contracts, because there's lower risk.

It wouldn't do Verizon any good to offer discounts for longer term contracts if they're already losing money on the shorter term contracts for UNE rates or retail services, whichever we're talking about, because that would just cause them to lose even more money. But if they were -- if the shorter term contracts were priced appropriately, then yes, they would have, at that point, which is not the current situation, they would have an economic incentive, in my opinion, to offer discounts for longer term contracts, because they would have lower risk.

Q. Well, let's focus on a specific market segment and say larger business customers. Are you aware of whether CLECs offer long-term contracts to larger business customers at lower rates than they could otherwise get on a month-to-month basis?

A. No. I mean, again, it sounds reasonable, but I'm not -- you asked if I'm familiar with it and I'm not. I'm not aware of it.

Q. Are you aware of, other than residential services that we talked about before, any Verizon services that are priced at a level that do not recover all costs, including the appropriate cost of capital?

A. My opinion that UNE services are priced in that manner.

Q. Any retail or tariffed services?

A. In general, I haven't studied Washington in particular, although there certainly is some evidence to that effect, but in general, having been in the telecommunications industry for the last 25 years, I'm very much aware that residential services have generally been priced below cost and -- in order to promote universal service, and that's pretty commonly accepted for the history of the telecommunications industry.

Q. But that's the only service that you're aware of that is arguably within that situation?

A. I haven't studied other services. I'm not aware of any.

Q. While we're talking about wireless companies, if you would please turn to your rebuttal testimony, which is Exhibit 106-T-C, and specifically table six, which begins on line 12.

JUDGE MACE: What page?

MR. KOPTA: It's on page 56.

THE WITNESS: Yes.

Q. Am I correct that you have -- that this table represents a correction that you have made to information that Dr. Selwyn provided in his testimony?

A. No, that's not a correction. The point of this table is that Dr. Selwyn segments out the businesses into categories that Verizon does not segment out in their 10-K reports or their 10-Q reports. In particular, Dr. Selwyn has reported income or assets that is, by long distance service and by data services or broadband services, as well, and he has not provided any category that I could tell for directory services. And he said that he got that information from Verizon's 10-K reports, and the purpose of this table is to show that Verizon doesn't provide information on its assets associated with broadband or its assets associated with long distance services, and it does provide information on its directory services that was neglected in Dr. Selwyn's segmentation.

And so I don't know where he obtained the information to make his segmentation for different lines of business. It was not in Verizon's 10-K report and I don't believe that there was any rational basis in the 10-K report. I've studied it extensively. There's nothing in that 10-K report to provide a rational basis to allocate Verizon's business to long distance or to broadband, and/or to neglect directory.

Q. I'm sure that Dr. Selwyn would love to explain how he did it if Verizon's counsel gives him the opportunity, but for now, I want to focus on the wireless category that you've got in your table here, and let's start with Verizon. Are these the total assets of Verizon Wireless, the 65 million or 65 billion dollars?

JUDGE MACE: I guess it's not really clear what those units are.

MR. KOPTA: Yes, it's not, but I believe it's billion.

THE WITNESS: Those are -- that's correct. I did not report the units. That is billions.

JUDGE MACE: It's dollars?

THE WITNESS: Dollars, yes, billions of dollars. This -- the question is are these all of their wireless assets, these --

Q. All of the assets of Verizon Wireless, the company?

A. I guess what I know for certain is that these are the assets that are reported in Verizon's 10-K report for its wireless assets. A Verizon accountant would have to testify on whether those were all of their wireless assets or whether they had wireless assets somewhere else. These are exactly what was reported in the 10-K reports for their lines of business. This and no more.

Q. Well, and let me be more specific. Are you aware that Verizon only owns 55 percent of Verizon Wireless?

A. Yes, it does own 55 percent. It does only own 55 percent of Verizon Wireless.

Q. So the question is whether the 65 billion includes the entire company or only 55 percent --

A. Ah.

Q. -- of the company?

A. For Verizon, because they have -- they felt they met the accounting standards for including all of the assets for Verizon Wireless on their balance sheet, so this includes all of the assets. So their actual wireless assets, if you multiply it by the 55 percent, would be less than this.

Q. Okay.

A. What I do know is they don't have any broadband or any long distance reported in the 10-K report, and that was the point of this table.

Q. Okay. Well, I understand that, but we're talking about wireless right now.

A. Okay.

Q. What about SBC?

A. SBC --

MR. BERRY: Can I just object to the question? What is the question with regard to SBC?

MR. KOPTA: Well, I was going to make it.

JUDGE MACE: Why don't we hear the question.

MR. KOPTA: Your witness was very anxious. I think he knew what I was going to ask.

Q. SBC and BellSouth jointly own Cingular Wireless; is that your understanding?

A. Yes.

Q. And has SBC done the same thing that Verizon has done and reported all of the assets of Cingular Wireless?

A. No, SBC has provided only -- has reported only its fraction, and I don't know the explanation for that, that they felt it was consistent with accounting standards for them to report their fraction, which I believe was 60 percent of their wireless assets.

Q. Does that work out mathematically between these two numbers for SBC and BellSouth?

A. There's not sufficient information here to tell. I'd have to know what Cingular's wireless assets were to know whether the sum of 60 -- of SBC's wireless and BellSouth's wireless totaled to

Cingular's wireless assets.

Q. Let me ask the question more directly, then. Is 10 billion, which is what BellSouth has reported, 40 percent of 35 billion, which would be the total of SBC and BellSouth wireless assets?

A. Maybe I -- maybe my percentage was wrong, then. I was -- my recall was that it was 40 percent. Maybe it wasn't 40 percent. It maybe was less than 40 percent. These are the wireless assets, however, that BellSouth reported and these are the wireless assets that SBC reported.

Q. Well, the reason I ask is because it looks to me, and being a lawyer doing math is always dangerous, that the 10 billion is roughly 40 percent of the 25 billion that SBC has reported, which leads me to believe that SBC, like Verizon, because it is a majority owner of the wireless assets, reported the entirety of the wireless assets?

A. That would be possible. It wasn't -- that fact was not relevant for the purpose of this table, so I'm going only on my recall. It wasn't an essential element of my testimony.

JUDGE MACE: Mr. Kopta, I'm mindful that you signed up for two hours of cross-examination for this witness, and I see that our time is at 5:00 p.m., and

I want to check in with the Commissioners and the parties to see where we're going to go with this.

CHAIRWOMAN SHOWALTER: We think it's time to quit.

JUDGE MACE: Okay. We're going to adjourn until 9:30 tomorrow morning. Now, let me make sure that I understand. We'll continue with Dr. VanderWeide, and then go on to Dr. Selwyn, and just follow our list along, only it will just be delayed somewhat.

MR. KOPTA: Correct.

JUDGE MACE: All right. Then we'll resume at 9:30 tomorrow morning. Thank you.

MR. KOPTA: Thank you.

(Proceedings adjourned at 5:00 p.m.)