changes here and there, some additions to my testimony, but as far as an explanation of the legal issues, some of the economic and projections for economic conditions and the explanation of the DCF, CAPM, risk premium are similar to that, to his testimony.

BY MR. SWEARENGEN:

Q. Would you agree that the lines in Mr. Bible's testimony, which is Deposition Exhibit 1, which I have highlighted in yellow and underlined in black, appear verbatim in your direct testimony in this case?

A. I would not say verbatim. I said there were some changes. But a lot of the concepts and the meanings and the intention is the same.

Q. Do the words that I highlighted in yellow and have underlined in Mr. Bible's testimony, Deposition Exhibit 1, appear word for word verbatim in your direct testimony in this case?

A. No. I detected a few things that were not.

Q. Would you please tell us those changes that you detected?

A. And I -- just to clarify, I only marked one because of the fact that I thought some of it was just a writing style.

If you want me to go through it again, I can pick out each and every word.

Q. I want you to do that.
A. Okay. I'm going to have to review it again, because I only picked out one substantial --
Q. That was -- the question was before you and --
A. I'm going to have to review it again.
Q. That's fine.
A. Okay.
THE WITNESS: Do I have a highlighter?
MS. SHEMWELL: Let's take a break.
MR. SWEARENGEN: The question couldn't have been any clearer.
MR. SCHWARTZ: Not the question. It's the timing. It doesn't need to be done in a deposition, taking up the time of all of these people.
MR. SWEARENGEN: I made it as easy for him as I could.
(A RECESS WAS TAKEN.)
BY MR. SWEARENGEN:
Q. Mr. Murray, we're back on the record.
We're just going to leave this exhibit with you for the rest of the day, Exhibit 1, with the understanding that by the close of business today, you will get back to us with an indication on that document of any -- let me put it to you this way: any testimony in Mr. Bible's -- any statements in Mr. Bible's testimony that I have

indicated by highlighting in yellow and underlining in black that do not show up word for word verbatim in your testimony.

And you'll also indicate any statements in his testimony that I have omitted to reflect that they should also appear in your testimony. Is that understood?

A. Can you please repeat that?

And I think -- I'm not going to be -- can I write this down?

MS. SHEMWELL: Sure.

BY MR. SWEARENGEN:

Q. You're going to take Exhibit 1 and you're going to go through it like you have been for the last 45 minutes or so, and you're going to indicate on it any of those statements which appear in that testimony that I have indicated by the highlighting and underlining also appear in your direct testimony, you're going to indicate two things: one, whether those statements do not appear, and to that extent the exhibit would be -- as I've given it to you would be inaccurate and will need to be corrected, and you're also going to show and indicate any statements which I neglected to mark which also appear in your direct testimony.

Do you understand that?

A. I understand that.

MR. SWEARENGEN: And is that agreeable with counsel?

THE WITNESS: I don't know that -- I'll do my best to have it finished.

MS. SHEMWELL: Okay. That will be fine.

If there is any difficulty getting that back to you by the end of the day, I will certainly let you know before the end of the day.

And I guess we'll return the original to the reporter after we've made copies for ourselves after he's responded. So that's fine.

THE WITNESS: And can I have a second, please?

Okay.

MR. SWEARENGEN: So when we finish, presumably we will have a document, Exhibit 1, which will correctly reflect what material in that document also appears in Mr. Murray's testimony word for word. Is that right?

MS. SHEMWELL: Yes.

MR. SWEARENGEN: Okay. Thank you.

BY MR. SWEARENGEN:

Q. Mr. Murray, prior to putting together your testimony for purposes of this case, what experience have you had with respect to the discounted cash flow or DCF model?

A. With the telephone cases, with the assistance on the St. Louis County Water case.

Q. What telephone cases specifically, again, are you referring to?

A. Ozark and Northeast Missouri Rural.

Q. And do you know whether or not either of those telephone companies is a cooperative-type organization?

A. I believe the Northeast Missouri Rural was a coop.

Q. What about Ozark?

A. I don't believe that is.

Q. And what was the other one you mentioned, the other company you mentioned?

A. I assisted on a rate case for St. Louis County Water.

Q. And what was your work -- what did your work in that case consist of?

A. Assisted in the preparation of schedules.

Q. And in connection with the preparation of those schedules, did you work at all with the DCF model?

A. Yes.

Q. And what schedules were those, do you recall offhand, just -- I know you won't know them by number necessarily, but can you just describe them generally?

A. I just presented a DCF analysis for American Waterworks and comparable companies for basically a crosscheck on CAPM and risk premium, and, basically, essentially, the same models that I have in my testimony.

Q. In this case?

A. Yes.

Q. So you cited three cases, and that would be the extent of your experience with respect to the DCF model. Is that right?

A. With the Commission, that's correct.

Q. And have you had any experience with the DCF model prior to your employment with the Commission?

A. With my degree, yes. I had a degree in finance and we -- that was part of the curriculum.

Q. Did you use it at all in connection with your employment with the Division of Insurance?

A. No.

Q. Are there different forms or types of DCF models?

A. The formula is the same. There are different assumptions, maybe.

Q. So you would say there are not -- what would your answer be? There are different forms and types or there are not different forms and types?

A. There are different types.

Q. And what are the differences between the different types?

A. I believe some analysts may use a two-tiered DCF model. I believe there is --

Q. What is a two-tiered DCF model?

A. Two different growth rates.

Usually the formula is essentially the same, but as far as some of the -- some of the ways to apply the DCF model, they can vary.

Q. On page 22 of your testimony, at line 4, you say the continuous growth form of the DCF model was used in this analysis. Do you see that testimony?

A. Would you refer me to the page again? Page 22 you said?

Q. Page 22, line 4.

A. Yes.

Q. Is that a two-tier form?

A. No.

Q. And what would the difference be between the two-tier form and what you use?

A. I use one growth rate.

Q. And why did you select this particular form of the DCF model?

A. It's been what our department has used for quite some time.

Q. So would I be correct in understanding that you consulted with someone in your department about the use of that particular form or the model?

A. Yes.

Q. Is that the same form of the model that you used in the two telephone cases and the St. Louis County Water case you talked about earlier?

A. Yes.

Q. Have you ever used any other DCF form or types?

A. No.

Q. Are there various ways to make a DCF calculation?

A. No.

Q. There are not?

A. No.

Q. There is only one way to make one?

A. As far as the formula.

Q. Would it be your testimony that it is very well defined as to what factors go into the DCF calculation?

A. Yes.

Q. And what are those factors?

A. Your dividend yield, which is the expected dividends divided by the stock price, which can be calculated various ways. And, of course, the growth component.

Q. That's your answer?

A. Yes.

Q. Are there judgments involved in the DCF process?

A. Yes.

Q. And can you give me some examples of those judgments?

A. For the dividend yield, obviously, the expected dividend for the next year is a judgment call, the price, the stock price to use.

Some may use the spot price; some may use an averaging technique. There is some judgment there.

Obviously, with growth rates, historical can be used, projected can be used. Different sources can be used. That pretty well sums it up.

Q. Would you agree that the DCF calculation is sensitive to these judgments or inputs that you just described?

A. Yes.

Q. At what point in going through the DCF process in this case did you make those judgments?

At what point or points, I should say?

A. I make those judgments when I -- with the dividend yield and the growth component.

Q. Those two -- with respect to the dividend yield and with respect to the growth component, those were the only two places in this case where you exercised some

judgment. Is that what you're saying?
A. As far as the DCF, yes.
Q. Okay. Before exercising your judgment with respect to those two items, did you consult with anyone else?
A. Yes.
Q. And who did you consult with?
A. Ron Bible.
Q. Did you consult with anybody else?
A. No.
Q. How many times did you run the DCF model or make a DCF calculation for purposes of this case?
A. Maybe two or three times. It just depended on -- I made some judgments as to growth rates. And that's my answer.
Q. Were the results of these other two or three runs or calculations any different than as reflected in your prepared direct testimony?
A. I think they were, but fairly minor.
Q. Can you give me a little more explanation other than that, fairly minor? What do you mean by "fairly minor"?
A. I think I looked at maybe having less projected growth references, and decided to go ahead and include more references because I thought that was appropriate.

I think the overall average of the projected growth rates didn't -- didn't change much.

Q. What about the ultimate result, the projected -- excuse me -- the recommended ROE range in this case, did those --

A. Like I say, because the average, there wasn't much difference with including them or excluding the two sources. It didn't change much.

Q. When you say it didn't change it much, what is "it"?

A. The resulting return on equity.

Q. And when you say it didn't change it much, can you kind of give me a better understanding of what you mean by that?

A. I -- I don't recall the exact numbers. I could probably run it for you, but I don't know the exact numbers.

Q. Do you have those runs available if we ask for them?

A. I can make them available.

Q. Why did you make more than one DCF run or calculation in this case?

A. Like I said, as far as the growth rates, it appeared that there was a high and a low, and so I thought that that may just go ahead and they might cancel each other out.

So that's why I considered just using two references for the growth rates. But since the high and low really did not make much of a difference, as far as from a statistical standpoint, it's better to include more sources than less.

Q. Were you -- and I'm going to use the word uncomfortable or not satisfied with the results of any of the other DCF runs or calculations that you made in this case but didn't use?

A. I would say that I thought the results weren't as sound because of the less reference material.

Q. And when you supply those other runs to us, you'll indicate which ones you felt were not sound as a result of less reference material?

We'll be able to tell that?

A. I'll provide the run with the two projected growth rates.

Q. All right. Thank you.

Now, I think you said there are several forms of the DCF model. Is it fair to say that you have used what somebody might call the annual form, meaning the dividends are paid once per year?

A. Yes.

Q. Now, would you agree with me, however, that in reality, dividends are paid quarterly?

A. It depends on the company. I'm not sure whether dividend policies -- I think dividend policies can vary.

Q. If dividends are, in fact, paid quarterly, does that change your results in any way at all?

A. No. I haven't done a study as far as that is concerned anyway.

Q. You have done a study?

A. No, I have not.

Q. So you wouldn't know whether it would change it?

A. No.

Q. Turning to page 23 of your direct testimony, there you list nine assumptions related to DCF3. Is that correct?

A. That's correct.

Q. And would you agree with me that the assumptions which go into the model are extremely important? I think you indicated that earlier.

A. Yes, they're important.

Q. And would you also agree that when you put together any kind of a model, it is important for those assumptions to more or less reflect or mirror reality?

A. I think it's important to have assumptions that -- I believe it's been pointed out that some of these assumptions may be simplified, but the results are more important than the assumptions.

Q. Well, let me make sure I understand.

Let me ask this question: Do the nine assumptions that you have listed there on page 23 mirror or match or reflect the real world reality?

A. I'd say it represents possibilities. I don't know what is going to occur at any specific point in time.

Q. So your answer is you don't know?

A. I don't know what the situation would be at any specific point in time.

Q. So with respect to those nine assumptions, you don't know whether they would prove to be true or would reflect reality or mirror what really goes on?

MS. SHEMWELL: I think he's answered that question. I think you're putting words in his mouth. So I'm going to object to the form of the question.

If you understand, you may answer. If you understand what he's saying, I guess you can answer.

THE WITNESS: Well, the assumptions are important for the DCF model itself. Obviously, it's a theory, and theories are just that. It's not always going to be true in reality.

BY MR. SWEARENGEN:

Q. Okay.
A. A theory is exactly that, a theory.
Q. Are each of the nine assumptions that you have listed there on lines 12 through 20 on page 23 true for Southern Union or Missouri Gas Energy?
A. I don't know.
Q. So based on your answer, could I conclude that none of those nine assumptions are true for Missouri Gas Energy or Southern Union?
A. I don't know what you -- I mean, I don't have a conclusion. I don't know what you would conclude.
Q. Well, I'm asking you what you would conclude.
MS. SHEMWELL: I'm going to object to this. He said he doesn't know.
MR. SWEARENGEN: Okay. That's fine.
MS. SHEMWELL: And I'll instruct him not to answer anymore.
MR. SWEARENGEN: That's fine.
BY MR. SWEARENGEN:
Q. Let me ask you about Schedule 14. Turn to that, if you would, please.
That's where you, I believe, list your eight comparable companies. Is that true?
A. That's correct.
Q. Are each of the assumptions, the nine

assumptions set out on page 23 of your direct testimony, true for each of the comparable companies under Schedule 14?

A. I don't know.

Q. Back on page 23, at lines 21 and 22, do I understand that you have set out there or created a tenth assumption, that is, that the growth horizon is unlimited and book values and market prices and earnings all go hand in hand?

A. Yes.

Q. Is it your testimony that an investor has an unlimited growth horizon?

A. It's an assumption.

Q. Is that an assumption that you believe in?

A. It's an assumption for the DCF model. Obviously, people may have different growth horizons.

Q. Is it an assumption that mirrors reality?

A. I said it's an assumption for the theory. All of these assumptions of the DCF model may not be reality.

Q. Including this tenth one that you have created?

A. Yes.

Q. And it might not be reality for investors in Southern Union Company. Is that a fair statement?

A. Yes.

Q. And it might not be reality for investors in

the eight companies under Schedule 14. Is that true?
A. That's true.
Q. Is it your testimony that book values, earnings and market prices grow hand in hand?
A. They may; they may not.
Q. And would that be your answer with respect to Southern Union Company?
A. It may; it may not, yes.
Q. And would that be your answer with respect to the eight companies on Schedule 14?
A. Yes.
Q. Where in this tenth assumption do you deal with dividends?
MS. SHEMWELL: Excuse me. I don't see a tenth assumption.
THE WITNESS: Well -- go ahead.
MR. SWEARENGEN: It's on lines 21 and 22 of his testimony.
THE WITNESS: There is no indication of dividends.
BY MR. SWEARENGEN:
Q. There is no indication of dividends?
A. Exactly. But that could be an assumption.
Q. Now, what could be an assumption?
A. I believe an assumption that -- and I'm

speaking from memory, Parcell's -- is that dividends, earnings and book value per share can grow hand in hand.

But that's another assumption. I think there may be other assumptions in there in the DCF model, but these are what are specifically itemized for purposes of this testimony.

Q. So let me ask this question then: In what I call the tenth assumption on lines 21 and 22 at page 23, you don't really address or deal with dividends. Is that true?

A. It's not in my testimony there, no.

Q. And it's not in the assumption?

A. In this assumption, no.

Q. Now, the analysis that you have performed in this case is solely for Southern Union Company. Is that correct?

I mean, you made no effort to undertake a separate analysis with respect to Missouri Gas Energy?

A. No.

Excuse me. Clarify. The analysis I've done is for MGE.

Q. The analysis that you have done in this case is for Missouri Gas Energy?

A. Yes.

Q. Okay. And it's not for Southern Union Company?

Is that your testimony?
A. Yes.
Q. It's not for Southern Union Company?
A. Obviously, MGE is a division of Southern Union. MGE can be thought of as Southern Union.
But for purposes of revenue requirement, rate of return, it's to be applied to MGE.
Q. Okay. So once again, I want to make sure I understand.
The analysis -- your testimony is the analysis that you've done in this case is for Missouri Gas Energy, the operating division, which is subject to the jurisdiction of the Missouri Public Service Commission. Is that correct?
A. Yes.
Q. Let me ask you this question: As a general proposition, would it be your opinion that a gas utility is riskier than an electric utility?
A. I haven't done an analysis of that.
Q. Do you have an opinion on that, whether or not a gas utility is riskier than an electric utility?
A. No.
Q. Do you have an opinion as to whether or not a gas utility is riskier than a water utility?
A. No.

Q. Do you have any knowledge of any changes which are underway in the natural gas industry which would cause gas utilities to become more or less risky?
A. No.
Q. I believe you indicated earlier that you were involved in the -- was it the St. Louis Water Company case?
A. Yes.
Q. And would I be correct if I said that on May 3 of this year the Commission in that case -- I think WR-2000-844 -- found that a 10.75 percent return on equity was appropriate for St. Louis County Water Company?
A. I believe that's correct.
Q. I think you indicated earlier that it's your understanding that Southern Union Company operates several natural gas distribution divisions. Is that true?
A. Yes.
Q. And these divisions that I'm referring to operate in jurisdictions other than Missouri. Would you agree with me?
A. Yes.
Q. Are you familiar with the term "risk profile"?
A. Yes.
Q. And how would you define that term?
A. Risk profile of a company can be a number of

factors: business risks, financial risks, just all of the risks of a company.

Q. All of the risks of a company?

A. Yes.

Q. And you said business risks and financial risks. Are there any other general types of risks?

A. Economic risk, things of that nature. Maybe an opportunity -- alternative investment opportunities.

Q. How would you define economic risk, just generally?

A. Just interest rate risk.

Q. And financial risks, how would you define those?

A. Leverage of a company.

Q. And business risks, how would you define those?

A. Competition, management, competency, those types of risks.

Q. Regulatory environment, might that be one?

A. Yes.

Q. Would that be a business risk?

A. It would be a market-type risk.

Q. Would you say that the other Southern Union gas distribution divisions are similar in character in terms of their risk profile as is Missouri Gas Energy?

A. I don't know.

Q. Would you agree that Southern Union's nonutility investments would not be similar to Missouri Gas Energy in terms of its risk profile -- or their risk profiles?

A. I don't know.

Q. Would you characterize Southern Union Company as a diversified company?

A. No.

Q. And why not?

First of all, what is your understanding of the meaning of the term "diversified company"?

A. I used Edward Jones in some of my analysis, and they list diversified versus distribution companies.

And I believe their definition is a distribution company is a company that receives 90 percent or greater revenues from distribution. That's the definition according to Edward Jones, the publication.

Q. And that's a definition that you would agree to or agree with?

A. I agree with my analysis, yes.

Q. And so based on that definition, you would say that Southern Union is not a diversified company?

Is that your testimony?

A. Yes, I would classify them as a distribution company.

Q. When you say as a distribution company, what do you mean?
A. Natural gas distribution.
Q. And not a diversified company?
A. According to Edward Jones' definition, correct.
Q. And you would agree with that definition?
MR. SHEMWELL: He's answered that. Let's move on. I'm instructing him not to answer anymore.
BY MR. SWEARENGEN:
Q. You can go ahead and answer the question.
A. Yes.
Q. Let me ask this question: Would you agree that risk is a variation in what actually takes place versus what is expected?
A. Risk can be a variety of factors. That may be one of the factors. Of course, investor's expectations, if it's not -- if it varies, there is going to be some risk there.
Q. For example, if somebody expected a return of 10 percent and got only 9 percent or got 12 percent, the difference would be risk; is that right?
One is a good result, perhaps, and the other bad?
A. Volatility in earnings can indicate risk.
Q. Would you agree that the extent to which the

expectation is not matched by reality is considered to be the level of risk? The extent to which the expectation is not matched by reality is considered to be the level of risk?

A. I'm not really sure as far as level of risk.

I don't understand the question, I guess.

Q. Well, let me ask it this way: Let's say that you expect a return of 10 percent and instead you get 9 percent, on the one hand, and then on the other hand, let's say, you expect a return of 10 percent and you only get 8 percent.

Would you agree in that example that I just gave you that the level of risk differs?

A. Strictly looking at the volatility in earnings versus expectations in a vacuum, obviously less earnings are -- volatility in earnings will cause more risk.

Q. And if the return is 8 percent, for example, or 9 percent and you expect 10, that is a way to measure the level of risk, the 8 versus 9 compared to the 10? Would you agree with that?

A. I don't know that I measure risk in that factor for my analysis, but maybe it's something investors look at. Investors look at many aspects of a company.

Q. Let me ask you this question with reference to your list of comparable companies.

On page 24, line 13, am I correct in understanding that you looked to Edward Jones to make the first cut, so to speak?

A. I would say that the first cut was based on stock publicly trading. There were no companies cut.

Q. Well, let me ask the question this way then: When you -- I'm looking at page 24, line 12.

You say Schedule 13, which is a list of your eight comparable companies, presents a list -- excuse me -- Schedule 13 presents a list of 17 market traded natural gas distribution companies monitored by Edward Jones, of which Southern Union is one. This list was reviewed for the following criteria.

So in the first instance you looked to a list of companies that Edward Jones monitored. Is that right?

A. Yes, sir.

Q. And then you reviewed that list for certain criteria. Is that right?

A. That's correct.

Q. And the criteria are set out at the bottom of page 24. Is that right? There are six of them?

A. Yes.

Q. Did you develop the six criteria set out on the bottom of page 24?

A. Yes.

Q. And then the next step, as I understand it, based on your testimony, is you calculated a DCF cost of equity for each of the comparable companies. Is that right?

A. Yes.

Q. And then you used that to come up with a cost of equity for Southern Union Company?

A. For Missouri Gas Energy.

Q. For Missouri Gas Energy. Okay.

Now, if there is something wrong with your list of comparable companies, would this detract from the credibility of your cost of equity recommendation in this case?

A. I don't know what would be wrong, as far as what you mean by wrong.

Q. Well, just assume that there is something wrong with your list of comparables.

A. I think the idea behind doing a comparable analysis is to have objective criteria, which is listed on one of my schedules, and to take the subjectivity of making judgments out of the picture.

So the criteria used naturally picks companies that are based on specific objective criteria.

Q. So let me make sure I understand you.

You're saying that even if something is wrong with your list of comparable companies, this would not detract from the credibility of your cost of equity recommendation in this case?

MS. SHEMWELL: I'm going to object to that question. You're putting words in his mouth. He didn't say there was anything wrong with --

BY MR. SWEARENGEN:

Q. Do you understand my question?

A. Well, I don't understand what you mean by "wrong." I mean --

Q. Well, why don't you define what you understand by the word "wrong."

MS. SHEMWELL: I'm going to object and instruct the witness not to answer. It's up to you to phrase your question so that he understands them, not up to him to define them.

So I'm going to instruct him not to answer.

BY MR. SWEARENGEN:

Q. How would you define the word "wrong"?

MS. SHEMWELL: I'm going to instruct the witness not to answer. It's up to you to define your questions and not the witness.

Don't answer.

BY MR. SWEARENGEN:

Q. You can go ahead and answer.

MS. SHEMWELL: Don't answer.

No, you may not answer the question.

BY MR. SWEARENGEN:

Q. You may go ahead and answer the question.

MS. SHEMWELL: I'm instructing him not to answer.

MR. SWEARENGEN: You're instructing him not to answer, and the question is, what is the definition of the word "wrong"?

MS. SHEMWELL: I'm saying that you need to define the question so that he can understand them. It's not up to him to clarify your questions.

BY MR. SWEARENGEN:

Q. Let me ask the question: Would you please define your understanding of the word "wrong"?

MS. SHEMWELL: I instructed the witness not to answer. I'm going to stick with that.

MR. SWEARENGEN: We can certify that up.

MS. SHEMWELL: That's fine.

BY MR. SWEARENGEN:

Q. Go ahead and answer the question.

MS. SHEMWELL: Don't answer the question. I'm instructing you not to answer. You need to move on.

MR. SWEARENGEN: Let me make sure I understand.

I'm asking the witness to give his

understanding of the word "wrong," w-r-o-n-g, and you're refusing to allow him to answer that question?

MS. SHEMWELL: I am, because you're asking him to clarify your question and that's not his responsibility.

MR. SWEARENGEN: Why don't you state your objection on the record so we have it.

MS. SHEMWELL: I'm objecting because it's up to you to clarify the question if he doesn't understand it, and you're not doing that.

MR. SWEARENGEN: That's exactly what I'm doing.

MS. SHEMWELL: You need to ask a clear question. I'm instructing him not to answer. We need to move on.

BY MR. SWEARENGEN:

Q. Let me ask this question: Would you say that under no circumstances, no circumstances, that there could conceivably be any factor with respect to your list of comparable companies that would cause your cost of equity recommendation in this case to lose some of its credibility?

A. There is always possibilities, but that's the purpose of using a comparable group of companies, to have several companies that are considered the representative sample for cost of equity for MGE.

Q. And what are the possibilities that would cause that result that you just referred to?

A. I think one thing that some people may -- some analysts may look at are mergers. That is the only one that comes to mind.

But as far as I'm concerned, it's a representative sample from Missouri Gas Energy.

Q. So your testimony would be that there really isn't -- there are no factors with respect to those companies that would detract from your recommendation in this case?

A. No.

Q. There are no factors, no, or there are no factors, yes?

A. There are no factors that would detract.

MR. SWEARENGEN: Did you want to take a break?

MS. SHEMWELL: I'm just telling him that if he gets ready for lunch, he needs to take a break, to do that.

BY MR. SWEARENGEN:

Q. I think earlier, Mr. Murray, you testified that the concept of risk is extremely important in this process of determining a fair and reasonable return for Southern Union and Missouri Gas Energy. Is that correct?

A. Yes.

Q. And this is because this is the standard which has been established by the United States Supreme Court in the Bluefield and Hope cases which we talked about earlier. Is that true?

A. Yes.

Q. And the Pennsylvania State Supreme Court case which you also cite and which we discussed earlier has done nothing to dilute that standard, has it?

A. Not that I'm aware of.

Q. Now, returning back to the six criteria on page 24 of your direct testimony, would you agree with me that for the most part, these criteria really have nothing to do with risk?

A. No.

Q. No, the six criteria have nothing to do with risk or, yes, they have nothing to do with risk?

A. Can you rephrase the question, please?

Q. Do these six criteria on page 24 have anything to do with risk?

A. Yes, they do have something to do with risk.

Q. Which criteria --

A. 4.

Q. -- has something to do with risk?

A. Item 4.

Q. So your testimony would be that Items 1, 2, 3, 5 and 6 have nothing to do with risk. Is that right?

A. Let me back up on that also.

Distribution of revenues could be considered a level of risk, but whether or not it's printed in Value Line, obviously, that's not something that's -- investors may want to see certain information of a company, but as far as the risk itself in a company, whether or not it's printed in Value Line is not going to make a difference.

Q. Okay. I think I understand. Item 4 and possibly Item 2 could conceivably concern risks.

Would it be fair to say that to the extent that your criteria do not deal with risk, that you have ignored the Bluefield and Hope cases?

A. No.

Q. And why not?

A. Because I picked a representative sample of natural gas distribution companies which are considered a representative of the natural gas distribution industry.

Q. What does that have to do with the criteria?

A. Gas distribution is -- when you do a comparative analysis, you want to look to companies that are in the same business, essentially have the same core business, and companies within the same industry tend to have similar risks.

Q. So you would say that to the extent your criteria does not deal with or concern risk, at least in your mind this does not -- this is not contrary to the standard established in the Bluefield and Hope cases. Is that right?

A. That's correct.

Q. Now, turning, again, to your list of companies, I think there is one on there called Energy South, Inc. Is that correct?

A. That's correct.

MS. SHEMWELL: What schedule was that?

MR. SWEARENGEN: Well, I just had him turn to Schedule 18. I think it's on several schedules.

BY MR. SWEARENGEN:

Q. Does this particular company -- it doesn't really meet your criteria, does it?

Isn't it in a separate publication called Value Line Expanded Edition?

Isn't it a different size of company, different characteristics and so forth than what is in Value Line Regular?

A. It met my criteria.

Q. Printed in Value Line?

A. Yes.

Q. That's your testimony?

A. Yes.

Q. Would you agree that People's Energy Corporation, which is on your list, is one of the largest gas companies in the country?

A. I don't know.

Q. You don't know?

A. I don't know.

Q. Do you know anything at all about its size?

A. No.

Q. What about Energy South, would you agree with me that it's one of the smallest in the country?

A. I don't know.

Q. Do you know anything about its size?

A. No.

Q. If you don't know anything about the size of those two companies, would you -- do I understand your testimony that you regard those companies as companies as comparable to each other?

A. They're -- they're comparable to the distribution -- natural gas distribution industry, yes.

Q. But you don't know anything about their size relative to the industry or to each other?

A. No.

Q. Would you say that Energy South, Inc., is comparable to Southern Union or Missouri Gas Energy?

A. Yes.

Q. And would it be your testimony that People's Energy Corporation is comparable to Southern Union or Missouri Gas Energy?
A. Yes.
Q. Do you anywhere in your direct testimony or in your schedules discuss the risk profile of each of your eight comparable companies on an individual basis?
A. In my direct testimony?
Q. Or your schedules.
A. I believe I referred to a variety of ratios on one of my schedules, which --
Q. Why don't you turn to that one and let me know which one you're talking about.
A. I believe Schedule 22.
Q. Now, where on Schedule 2 (sic) can I discern the risk profile of each of these companies on an individual basis?
A. On schedule 22, you could look at their capital structure, pre-tax interest coverage ratio. Those are risk type of ratios that an investor may look at.
Q. And tell me, for example, pre-tax interest coverage ratio, is that shown on your column 4?
A. Yes.
Q. Where else on that document can I find something that discusses the risk profile of those eight

companies?

A. That's it as far as the capital structure that may have an indication of the riskiness.

Q. Where do I see the capital structure on each of those companies on that schedule?

A. As far as the equity ratio and the long-term debt ratio, the preferred stock ratio, those are in Columns 1, 2 and 3.

Q. And those are all shown in percentages. Is that correct?

A. That's correct.

Q. Without specific dollar amounts for those particular items. Is that correct?

A. That's correct.

Q. Is there anywhere on that document that I can tell how large these companies are as compared to each other?

A. No.

Q. Where in your testimony or schedules do you discuss the risk profile of these eight companies as a group?

A. I believe as far as the discussion of the risk profile of the group, it's addressed when I discuss the criteria that was used to narrow it down.

Q. And where would I find that?

A. Basically, I think, where we were at before, which is page 24, how did you determine which companies you would include to represent the comparable natural gas distribution companies.

And then I go on into the criteria to select what I feel is a comparable group of companies for purpose of calculating the cost of equity.

Q. But I think earlier you said that with the exception of Item 4 and possibly Item 2, none of those criteria had anything to do with risk?

A. The items specifically may not have anything to do with risk that you're referring to as far as whether or not they're printed on Value Line, but the fact that I -- the fact that I extract a natural gas distribution comparable list and they're in the same type of business means that they are comparable.

Q. Let's look at Item 6, for example, on page 24, ten years of data available.

What does the availability of data have to do with risk?

A. Nothing.

Q. Look at Item 3: Information printed in Value Line, what does that have to do with risk?

A. Nothing.

Q. What does Item 1, stock publicly traded, have to do with risk?

A. Nothing.

Q. Is it your testimony that the risk profile for Southern Union or Missouri Gas Energy is the same as the risk profile for your group of eight companies?

A. I would say as far as the natural gas distribution business, they are the same.

Q. Let me make sure I understand.

Now, you're saying as far as the natural gas distribution business is concerned, the risk profile for Southern Union is the same as the risk profile for the group of eight companies?

A. There may be differences in the various companies, but as far as a representative sample of the natural gas distribution business, that is what I chose to represent Southern Union, and as a result, Missouri Gas Energy.

Q. When you say there may be differences, what do you mean by that?

A. Obviously, the ratios I just referred you to included financial, the capital structure of the companies and pre-tax interest coverage ratio.

Those are all factors that -- that are considered as part of the risk as far as the business operations and what have you, using a natural gas distribution sample of eight comparable companies is assumed to be a reasonable comparison of risk.

Q. Now, you mentioned there may be differences between the various companies, the eight companies on your list of comparables.

Tell me again what you mean by that, what the differences could be.

A. Obviously, there may be differences in the geographic areas that they serve, weather patterns. There are many variations, but --

Q. I think earlier you talked about different general types of risk, and you talked about financial risks and business risks, and do you recall those, economic risks?

A. Yes.

Q. Would you agree that with respect to those eight companies, that all of those risks could be different for each of those companies?

A. It's possible.

Q. Have you made any study to determine whether or not they are?

A. No.

Q. You haven't made a study with respect to the various types of risks for each of those eight comparable companies; that's your testimony?

A. I said as far as the criteria I used. I used the criteria to narrow down the companies which includes the natural gas distribution -- eight comparable natural distribution companies I used.

As far as any other specific analysis, no.

Q. It's possible, I think you said, that the business risk, financial risk, economic risk or other risks for any of those companies could be different among themselves?

A. Yes.

Q. And they could also be different as compared to those risks which Southern Union and Missouri Gas Energy might experience. Is that true?

A. It's possible.

Q. Have you made any sort of adjustment or proposed any sort of adjustment in this proceeding that would account for the difference in risks that Missouri Gas Energy or Southern Union might experience as compared to your group of eight companies?

A. I have not proposed any specific adjustments.

Q. For risk?

A. For anything.

Q. Is it still your testimony that the concept of risk is extremely important in the process of determining a reasonable return for Southern Union or Missouri Gas

Energy?

A. It's a factor.

Q. Is it an important factor?

A. Yes.

Q. Would you say it's an extremely important factor?

A. I would say it's an important factor.

Q. Back on page 20, line 11, I believe, if you'd turn to that for a minute.

I think it is there that -- I said line 11. I think it's lines 14 and 15, where you indicate that you reject Missouri Gas Energy's proposed capital structure, and you devote five lines there, lines 11 through 15, explaining why. Is that correct?

A. Yes.

Q. Let me ask you this question: Is what you're saying there on lines 11 through 15 consistent with your understanding of contemporary and generally accepted finance theory?

A. Yes.

Q. Is it your understanding that it is a standard practice in the area of finance to use the consolidated capital structure, say, for example, for capital budgeting?

A. I don't know.

Q. Is it your testimony that it's standard practice for -- in the area of finance, for what I will refer to as larger companies, to use the consolidated capital structure for any purpose?

A. I don't know.

Q. You mentioned earlier that Southern Union Company has, I think what you referred to as, nonutility investments. Is that right? Do you recall that?

A. I may have. I don't recall.

Q. Do you know whether or not Southern Union has any nonutility investments?

A. I'm aware of some unregulated investments. As far as specifics, we talked about that.

Q. And what is your knowledge? What are those?

A. I believe I said before something about propane and maybe some other. I mean, I don't recall offhand.

Q. Okay. Do you know how Southern Union finances those investments?

A. No.

Q. Do you know how many customers -- how many residential customers Missouri Gas Energy has?

A. I want to say it's somewhere around 500,000, but I don't know. I don't recall.

Excuse me. Go ahead.

Q. Are you finished?

A. Yes. Go ahead.

Q. Do you know how many commercial customers MGE has?

A. No.

Q. How about industrial customers, do you know how many industrial customers Missouri Gas Energy has?

A. No.

Q. Back to the comparable companies that you show on your schedules -- and I'm looking now at Schedule 14, with respect to those eight companies --

A. Yes, sir.

Q. -- with respect to those eight companies under Schedule 14, do you know whether or not during the time represented by your study that went into your testimony in this case whether or not any of those companies were engaged in merger proceedings?

A. No.

Q. You do not know?

A. That's correct.

Q. And so based on that I could assume that all eight of those companies, perhaps, were involved in merger proceedings, or any number of them could have been?

You don't know?

A. I don't know.

Q. Did you make a study to determine if their existed any special or unusual circumstances surrounding any of those eight companies under your Schedule 14?

A. A specific study, no.

Q. Did you make a general study?

A. No.

Q. Are you familiar with the State regulatory bodies which have jurisdiction over the operation of those eight companies shown on your Schedule 14?

A. No.

Q. Do you know whether or not those eight companies operate in eight different regulatory jurisdictions?

A. No.

Q. Do you know whether or not the practices of the regulatory commissions which do have jurisdiction over those eight companies influence the financial conditions of those companies in either a positive or a negative fashion relative to MGE or Southern Union?

A. No.

Q. Would you agree that the decisions of the Missouri Public Service Commission will influence the financial condition of Southern Union Company and/or Missouri Gas Energy?

A. It's possible.

Q. Would you agree that the commissions which regulate your eight comparable companies shown on your Schedule 14 would likewise possibly influence the financial conditions of those companies?

A. It's possible.

Q. Let me ask you this: In your present position at the Public Service Commission, are you in a department or a division?

A. I believe they refer to it as departments there.

Q. Okay. And what department are you in?

A. Financial Analysis.

Q. Okay. And who else is in that department?

A. My boss Ron Bible and Roberta McKiddy.

Q. And I take it from your comment that you report to Ron Bible. Is that right?

A. That's correct.

Q. And who does he report to in turn, do you know?

A. Bob Schallenberg.

Q. To your knowledge did any other members of the staff of the Missouri Public Service Commission review any drafts of your direct testimony in this case before you filed it?

A. Yes.

Q. And who might that have been?

A. The attorneys involved.

Q. Specific attorneys?

A. Yes.

Q. Okay. Anybody else?

Did any nonattorneys review drafts of your testimony?

A. The case coordinator, Steve Traxler.

Q. Did Mr. Traxler suggest any changes in your testimony?

A. No.

Q. Did the attorneys suggest any changes in your testimony?

A. Nothing substantial.

Q. Okay. Are you familiar with the term "market return"?

A. Yes.

Q. Would you agree with me or accept as a definition that a market return is a return that investors could earn in other investments of equivalent risk?

A. Yes.

Q. Assuming that definition, then, would you agree that market return is the return necessary to attract capital?

A. Yes.

Q. And would you agree that this concept is a sound economic principle?

A. Yes.

Q. If I use the term "indenture," would you know what that means?

A. Yes.

Q. Are you familiar with any indentures in the public utility area?

A. As far as specifically?

Q. Just generally.

A. Generally.

There is various indenture agreements with utilities as far as issuances of bonds.

Q. Would you agree with me that generally an indenture is an agreement between a utility company, on the one hand, and bond investors on the other hand?

A. Yes.

Q. Are you familiar with any indenture which Southern Union or Missouri Gas Energy might have?

A. I did request the specifics of their debt issuances.

Q. So the answer is, you are familiar with a Southern Union or Missouri Gas Energy indenture?

A. I'm familiar with some of the terms of those indentures.

Q. Would you agree with me that generally speaking, an indenture has no relation to market return or

the evaluation of a particular company's common stock?
A. Could you repeat the question?
Q. Yes.
Would you agree with me that generally speaking an indenture has no relation to market return or the evaluation of a particular company's common stock?
A. There may be specific things in the indenture that I'm not sure about, so I'm not sure I can answer that question.
Q. You don't know the answer to that one way or other?
A. No.
MS. SHEMWELL: I'm going to suggest we break briefly for lunch. It's getting to be quarter to one.
MR. SWEARENGEN: Let me ask one or two questions and then we'll do that. Okay?
MS. SHEMWELL: Okay.
BY MR. SWEARENGEN:
Q. Based on your knowledge that you do have of indentures, what is there that leads you to believe that an indenture might have some relation to market return or the evaluation of a particular company's common stock?
A. There may be provisions within an indenture that -- I mean, obviously bonds fall in place as far as the earnings.

As far as the indenture agreements, obviously, the bondholders are first in line before the stockholders.

So if there is anything specific in the agreement -- and I don't recall -- I don't know exactly what specifically would be in there, other than the fact that they would have first dibs, if you will, on the earnings.

Like I said, other than that I'm not aware.

Q. But that would be true, would it not, with respect to all indentures?

A. Yes.

Q. Okay. So, then, how could that in any way influence the evaluation of a particular company's common stock if all indentures are like that?

A. It would be a matter of how much they had.

Q. Yes.

A. As far as a specific indenture agreement, I don't know.

Q. Okay. So you can't point to anything specific in an indenture --

A. No.

Q. -- that would cause you to think that an indenture would have some relation to market return?

A. As I said, I don't know.

Q. You don't know?

A. I don't know.

MR. SWEARENGEN: We can stop there if you'd like.

MS. SHEMWELL: I think it's a good time.

(THE NOON RECESS WAS TAKEN.)

BY MR. SWEARENGEN:

Q. Mr. Murray, back on page 19 of your direct testimony, you say that for purposes of this case you are using Southern Union's consolidated capital structure. Is that correct?

A. That's correct.

Q. And as of December 31, 2000, that consolidated capital structure included 31 percent common stock and 58 percent debt. Is that right?

A. That's correct.

Q. Now, let's assume for a minute if those ratios were reversed, say, they showed 31 percent debt and 58 percent common, would your recommendation for the capital structure in this case be the same?

A. Well, it could since we use actual capital structure. If that was the actual capital structure, we -- the Commission and staff has predominantly used actual capital structure, except for various situations that -- as far as if it's determined unreasonable to have a high equity ratio compared -- compared to the rest of the industry.

Q. So would your testimony be at least for the first cut, subject to what the Public Service Commission might ultimately decide, the staff would at least support or recommend that circumstance, a capital structure of 31 percent debt and 58 percent common equity?

A. It's possible. I don't know for sure what we would do.

MS. SHEMWELL: Did you understand his question?

MR. SWEARENGEN: Well, I think he did. He said it's possible.

BY MR. SWEARENGEN:

Q. According to your testimony at page 17, from 1996 to 2000, Southern Union's common equity ratio has ranged from 47 percent to 34 percent. Is that correct?

A. That's correct.

Q. And yet you're recommending for purposes of this case a 31.2 percent common equity ratio?

A. That's correct.

Q. But you admit that's significantly lower than the industry average. Is that true?

A. Let me refer to my language.

Yes, that's what I indicate in my testimony.

Q. Does the staff, at least to your knowledge, always recommend that the actual capital structure of the company be used for purposes of setting rates?

A. Predominantly, but not always.

Q. When would the staff recommend using something other than the actual capital structure of a company for purposes of setting rates?

A. I believe there has been a couple of cases. I think St. Joe Light and Power is one that comes to mind where a hypothetical was proposed.

Q. And what were the circumstances in that case that caused the staff to propose a hypothetical capital structure?

A. Just from general knowledge of it. And this is -- I don't know the specifics of the case, but I think it had something to do with the equity ratio being not completely in line with -- with maybe the industry.

Q. Okay.

A. But that's just very general.

Q. Okay. So that would be a standard to use, whether or not the equity ratio is in line with the industry. Is that a fair statement?

A. No.

Q. It's not a fair statement?

A. No.

In that case it may have been, but we don't look at every case and treat them the same.

Q. Well, what was there about the St. Joe case that you know that would have caused the staff to say that a capital structure more in line with the industry should be used?

A. Like I said, I just spoke about it in general terms. I don't know the specifics of that case.

Q. Okay. That's fine.

Have you done a study to determine when in the past the staff has recommended and the Commission -- or the Commission -- the staff has recommended or the Commission has chosen to adopt for ratemaking purposes something other than the actual capital structure of the utility?

A. I haven't done a study.

That was your question. Right?

Q. Right.

What knowledge do you have of that subject other than the St. Joseph Light and Power case which you referred to?

A. As far as hypotheticals?

Q. Yes.

A. I would say that I don't have more knowledge than that.

Q. Would you agree that Southern Union's capital structure changes over time?

A. Yes.

Q. And can you tell us why it is currently at 31 percent common equity?

A. The chances are -- and this is -- just a possibility, but it appears that since it was at 46 percent June 30th of 2000 and went all of the way to 31.2 percent in less than six months and there was an acquisition of the New England Division in that time frame, that it probably acquired quite a bit of debt with that acquisition.

Q. So you're aware that it was -- the common equity ratio was considerably higher June 30, 1999. Is that what you said?

A. It was considerably higher than December 31st, 2000, that's correct.

Q. What was the number you used?

Was it close to 50 percent? I can't remember what you said.

The common equity ratio at June 30, 1999. You had a percentage there, and I can't remember --

A. Let me refer to it.

As stated in the annual report of Southern Union Company, the common equity ratio as of June 30th, 2000 was 46.82 percent.

Q. 46.82.

In your opinion is there more risk associated with a capital structure such as Southern Union which has a common equity ratio of 31 percent as compared to a utility with a higher equity ratio?

A. I mean, there are many risk factors. I don't know that you can just narrow it down and say that the capital structure is the only risk factor.

Q. Well, I understand that.

But would there -- all of the things being equal, is there more risk associated with a capital structure where they lower equity ratio as opposed to the one with a higher common equity ratio?

A. I would say if you have two companies that are in exactly the same industry, exactly the same amount of revenues, exactly the same everything on their financial statements, exactly the same exposure to business risks, regulatory risks, market risks, all risks held equal and exactly the same except for leverage, then I think that would be a reasonable conclusion.

Q. Are any of your eight comparable companies, did they meet the standard or criteria that they're identical in all other respects?

A. No, not that I know of.

Q. Have you done a study to determine that?

A. No.

Q. Have you done any study to determine what risk factors that each of those eight comparable companies might be different than comparable risk factors for Southern Union or Missouri Gas Energy?

A. The risk factors I mentioned before?

Q. Any risk factor.

A. Well, obviously as far as the financial risk factors that is in Schedule 20-- Schedule 22, but as far as --

Q. Go ahead.

A. But as far as general risk factors, no, It's -- a lot of those can be qualitative, and it's hard to measure.

Q. So you wouldn't know, then, for instance, with respect to any one of those companies whether a higher equity -- common equity ratio might be offset by some other factor that would be detrimental?

A. I don't know.

Q. What are the common equity ratios of each of the companies on your list of comparable companies?

A. AGL Resources, 47.5.

Q. Excuse me. What document are you referring to?

A. Schedule 22.

Okay. Are you ready?

Q. Yes.

A. AGL Resources, 47.5; Cascade Natural Gas, 50 percent; Energy South, 56 percent; New Jersey Resources, 53 percent; People's Energy, 64.9 percent; Piedmont Natural Gas, 57 percent; South Jersey Industries, 45 percent; WGO Holdings, 56.5 percent.
Q. And the average there is what?
A. 53.74 percent.
Q. And what does that document show that the Southern Union Company common equity ratio is?
A. This Schedule 22 shows 31.2 percent.
Q. And I think earlier in your testimony -- I think it was on page 18 -- you said that Southern Union's common equity ratio is significantly lower than the industry average?
A. Yes.
Q. And that's what you would base that statement on?
A. Yes.
Q. And when you say "significantly," could you define that term for me?
A. Well, obviously, it's not just a few basis points.
20 percent is significant in my mind.
Q. I think earlier you said -- and correct me if I'm wrong -- that you had reviewed the rate of return

testimony of staff witness David Broadwater in Case GR-96-285?

A. Yes.

Q. I've got that. I'm not going to ask you to go through it and make any kind of comparisons, but I do want to have marked an exhibit, please, which is a portion of that testimony.

(EXHIBIT NO. 2 WAS MARKED FOR IDENTIFICATION BY THE COURT REPORTER.)

BY MR. SWEARENGEN:

Q. Now, you said you read that testimony, or you reviewed it?

A. I reviewed it. I didn't review it in as much detail as Ron Bible's testimony.

Q. Is it your understanding that in that case that I'm referring, to Commission Case GR-96-285, that the Commission staff recommended a 50-basis point adjustment to return on equity for Southern Union -- to Southern Union's 33 percent common equity ratio?

A. Could you refer me specifically to --

Q. Well, do you have any independent recollection of that?

A. I think there were some adjustments, but I'd have to look specifically to verify that.

Q. Let me hand you what has been marked for purposes of identification as Deposition Exhibit 2, which I will represent to you is the first page of Mr. Broadwater's testimony which you have in front of you, pages 44, 45 and 46 and Schedule 30, and you can take a minute and look at that and confirm that that's what I told you that that's what it is.

A. Yes, he does state that.

Q. What I want you to, first, was confirm that Exhibit 2 is a copy of --

A. Let me see.

Q. It's a correct copy of the pages from Mr. Broadwater's testimony, is that right, pages 44, 45 and 46 and Schedule 30 --

A. That's correct.

Q. -- from Mr. Broadwater's testimony?

Take a look, then, at Schedule 30, which is the last page on the -- you can hand this back -- Schedule 30, which is the last page on the exhibit.

Am I correct that that schedule shows the average common equity ratio for the comparable companies as 52.6 percent?

A. That's correct.

Q. And that document shows that Southern Union's common equity ratio at that time was 32.74 percent. Is that right?

A. That's correct.

Q. And would you agree with me that the difference between those two is 19.86 percent?

A. That's correct.

Q. Okay. Now, take a look, if you would, for a minute at your Schedule 22 to your testimony which we were discussing earlier.

And I think you said that the average common equity ratio is reflected in that schedule for your group of comparable companies as 53.74 percent. Correct?

A. Yes.

Q. And the common equity ratio for Southern Union Company is 31.2 percent?

A. Yes, sir.

Q. And the difference is 22.54 percent. Is that correct?

A. It looks correct.

Q. So the difference in these ratios is somewhat greater now than it was back in Case GR-96-285. Would you agree with that?

A. Yes, sir.

Q. Have you made any adjustment in your case to account for this risk as did Staff Witness Broadwater in Case GR-96-285?

A. No.

Q. Take a look at Schedule 8, if you would, please, to your testimony.

Are you there --

A. Yes.

Q. -- on that schedule?

Now, there, I think, you state a number of selected financial ratios for Southern Union Company on a consolidated basis. Is that correct?

A. Yes.

Q. And one of those shows a triple B plus rating for senior debt -- senior debt rating of 2000?

A. Yes.

Q. And where does the triple B plus for senior debt rank in the scale of possible bond ratings, do you know?

A. It's investment grade.

Q. What is the range of possible bond ratings, do you know?

A. All of the way to -- basically default to double A.

Q. Okay. So what is in between there?

You have default on the one hand and double A on the other one. What are the ratings that fill that out in the middle?

A. Triple B, double B, B, single A, A minus, triple B positive, double B plus, double B minus, et cetera, et cetera, C.

Q. Okay. Any more?

A. It's all I recall right now.

Q. And I think on page 30 of your direct testimony there, you indicate that a company that is rated investment greater or higher if it is triple B minus or higher. Is that right?

A. That's correct.

Q. And what does investment grade mean?

A. Basically that's the point where institutional investors may yank their money. They don't feel like it's a safe investment.

Q. Would you agree that a company with a double B rating would have a more difficult time issuing bonds than a company with a triple B rating?

A. I don't know if they'll have a more difficult time issuing bonds. Maybe at a higher cost. It's possible.

Q. It's possible that they would have a more difficult time?

A. It's possible. But if they get the higher cost and there is investors that want to invest in those lower-rated bonds, then that's the investor's decision.

Q. Would you say, in any event, the bonds of a

double rated B company would cost more than a triple B?
A. It's likely. It's possible.
Q. If a bond rating agency raises the bond ratings of a company from triple B to A, would you expect there to be a change in the cost of borrowing?
A. It could possibly be lower.
Q. The costs of borrowing could possibly be lower?
A. For a company, it's possible,
Q. Is that what you would expect?
A. I believe if you would review the -- and I'd have to check this out, but if you review the merging bond record and the average interest rates paid for a variety of bond ratings on the spectrum, that you would expect a better credit-worthy borrower may receive a lower interest rate.
Q. Are the rates which a utility company charges for the service it provides to its customers likely to increase or decrease over time if a bond rating agency increases a utility's bond rating?
A. I mean, it's pretty hard to answer that for sure because of the fact that there is the capital structure issue, what's -- an optimal capital structure is pretty well impossible to determine.
If somebody could determine that, then I think they would be one up on everybody else. But it's -- I

mean, you don't know a good -- it just falls on the overall cost of capital.

Q. So you wouldn't know whether rates would likely go up or down if over time a rating agency increased the utility's bond rating?

A. I don't know for sure.

Q. Do you have any opinion at all, less than certainty, what would be likely to happen?

A. No.

Q. You mentioned -- what was the word you used, an optimal -- or optimum capital structure?

A. Yes.

Q. What's that?

A. I don't know. It's -- it's a mix of debt to equity that is considered the lowest cost of capital for a company.

And, like I said, if somebody knew that, on a regular basis it adjusts over time, they would be at least the CFO.

Q. What is the significance of an optimal or optimum capital structure for purposes of what we're talking about today?

A. There is really not any significance for an analysis.

Q. Is that something that a regulatory staff might recommend or suggest in a proceeding to be used for ratemaking purposes?

A. Not -- I mean, we don't know an optimal. So it's -- a hypothetical might be used, but as far as an optimal, like I said, it's very hard -- it's almost impossible to determine that.

Q. Would an optimal capital structure be a hypothetical capital structure?

A. Like I said, the hypothetical may not be optimal.

Q. Well, let me ask it the other way then.

You're saying you don't know what an optimal capital structure is for any particular company. Is that your testimony?

A. That's correct.

Q. Could someone make a reasonable argument that there is such a thing as an optimal capital structure for a particular company?

A. Anybody could make that argument.

Q. Okay. And if someone did make that type of argument, would you call that a hypothetical capital structure?

A. Not necessarily.

Q. And why not?

A. Because it would have to be used in some type of proceeding for a hypothetical to be -- and, once again, for them to know whether it's optimal, they would have to have some type of way to verify that that's the lowest cost of capital, which, as far as I know, it's impossible to do.

Q. Turn to page 30, if you would, for a minute, please, of your testimony.

There on line 1 you discuss a pre-tax coverage of 2.10 times to 2.18 times?

A. Yes.

Q. And you state that that is slightly higher than Standard and Poors lower quartile for triple B rated natural gas distribution companies. Is that correct?

A. That's correct.

Q. Is a triple B rated bond rating an appropriate target for a regulated company?

A. I don't know.

Q. Did you do any study to determine whether or not a 2.10 coverage is sufficient?

A. No.

Q. Are you aware of or can you refer me to any citations by scholars or any regulatory decisions that recommend a triple B bond rating as a target for gas distribution companies?

A. No.

Q. Do you know if any State commissions -- State regulatory commissions use a triple B bond rating as a target for setting an allowed return for gas distribution companies?

A. I don't know.

Q. On line 3 of page 30 you indicate that the pre-tax coverage of 2.10 to 2.18 times is much higher than Southern Union's 1.13 times. Is that correct?

A. That's correct.

Q. Is it your testimony that a 1.13 times is an appropriate pre-tax coverage target for a gas distribution utility?

A. I don't know. I don't comment on that, and I don't determine what is appropriate.

Q. You don't have an opinion on that?

A. No opinion.

Q. Is there any reason that you can think of that the Missouri Public Service Commission should be concerned about a utility company with a 1.13 times pre-tax interest coverage operating in Missouri?

A. Obviously, anything might raise some red flags if there is some concern about the payment of debt, but as far as --

Q. Is there any reason you can think of that this Commission should be concerned about a utility company with a 1.13 times pre-tax interest coverage operating in the state?

A. I would say if there is a problem with the company meeting its interest obligations, there may be a concern, but as to whether or not that indicates whether or not they're going to default on debt, I don't know.

Q. Do you know if 1.13 times pre-tax interest coverage meets the bond indenture requirements of Southern Union debt?

A. I don't believe there is any -- I'm recollecting from memory here.

I don't know if there is any active indenture requirements as far as the pre-tax interest coverage ratio. That's just from memory.

Q. So your answer is you wouldn't know or you don't know?

A. Exactly.

Q. In your financial experience, have you investigated what happens when a utility fails to meet its bond indenture requirements?

A. No.

Q. Have you made any adjustment in this case for any risk associated with pre-tax interest coverage?

A. No.

Q. Turn, if you would, to your Schedule 15.3, and look at the line which says People's Energy Corporation.

A. Yes.

Q. Once again, do you have any knowledge about the size of that company as compared to the other companies in your Schedule 15.3?

A. No.

Q. Am I correct that you show that People's is shown to have a ten-year earnings growth of 2.51 percent? Is that right?

A. That's right.

Q. And a five-year earnings growth of 4.85 percent?

A. That's correct.

Q. If you were purchasing the People's stock today for your own account, what earnings growth would you expect in the next few years based on these numbers?

A. I have no specific analysis on that.

Q. So you don't have an opinion on that?

A. I have not made any personal judgments as far as whether or not I would invest in any of these companies.

Q. Based on what you do know, would you expect the growth to be closer to the 2.51 percent than to the 4.85 percent?

A. Obviously with People's Energy, the

projected -- the reason why I had a projected growth was to take into account what the analysts forecast.

I think the average of historical and projected growth was 3.96 percent on Schedule 16 and the average projected growth was 4.23 percent.

So I think for purposes of analysis, that would be reasonable to assume to fall somewhere within that range. I didn't use historical on its own, so --

Q. So is that closer to the 2.51 or closer to the 4.85?

A. 4.85.

Q. Take a look at your Schedule 19, if you would, please.

There you've got a column numbered 3, market risk premium 1926 to 1999, and you've got 7.8 percent listed for each of the companies, each of your eight comparable companies. Is that correct?

A. That's correct.

Q. What is the origin of that number?

A. Under the sources, the Ibbotson Associates Stocks, Bonds, Bills and Inflation 2000 Yearbook.

Q. Okay. And is that the same number that you talk about, I think, on page 28, lines 7 and 8 from your testimony?

A. Yes.

Q. And what edition of that book are you talking about?
A. 2000.
Q. Is that the classic edition?
A. I'm not sure. I don't know the difference. You'd have to define "classic."
Q. Could you, after we're finished with this deposition, let us know exactly where precisely in that yearbook you got that number?
A. Yes.
Q. Could you do that?
A. Yes.
Q. Okay. Turn to page 7 of your direct testimony, please.
On page 7, on line 11, what is the source of your statement that one of the most commonly accepted indicators of economic condition is the discount rate?
A. Just general knowledge.
Q. Are there other commonly accepted indicators that you have based on your general knowledge?
A. Federal funds rate, unemployment, gross domestic product, interest rates.
Q. Inflation?
A. Inflation. Several factors.
Q. Filings for unemployment compensation?

A. Yes. I believe I said that.

Q. On page 8, you indicate, I think, at lines 7, 8 and 9, that NAFTA, the North American Free Trade Agreement, is the most important factor for the U. S. economy in 1993. Is that correct?

A. Perhaps the most important factor.

Q. How did the passage of NAFTA in 1993 impact Southern Union Company or Missouri Gas Energy?

A. I don't know directly.

Q. How does NAFTA impact Southern Union or Missouri Gas Energy today?

A. I don't know directly.

Q. On page 12 of your testimony you discuss interest rates. Is that correct?

A. Yes, sir.

Q. And you include the 30-year treasury bond to the extent that the spread changes through time and becomes wider. Is that correct?

A. Specifically where are you referring to?

Q. On page 12.

A. What lines?

Q. Well, lines 9 and 10.

A. It doesn't refer to the spread though. I believe it refers to interest rates themselves.

Q. Are you using the 30-year treasury bond as a benchmark?

A. Yes.

Q. What is the status of treasury bonds these days in terms of their availability?

A. They're still available. I know there has been discussion about eliminating the 30-year treasury bonds.

Q. Are they scarcer than they were previously?

A. I can't tell you specifically.

Q. On page 20, line 23, you indicate that the embedded cost of preferred stock on December 31, 2000 for Southern Union is 9.93 percent. Is that correct?

A. That's correct.

Q. And would you agree with me that there is a basic principle in finance which says that the greater the risk, the higher the return requirement?

A. Holding all else the same, if there is larger risk, the investor may expect a higher rate of return.

Q. Would you agree that the preferred stock -- let me ask you this. Is it your opinion that the preferred stock has greater risk than the common stock of Southern Union, or less risk?

A. It's an embedded cost. I really don't know what the risk would be versus the common stock.

Q. Would the holder -- so you wouldn't know whether or not the -- if I were invested in common stock in Southern Union Company or if I had the preferred stock, on the other hand, which would be more risky?

A. Well, generally as far as in lines of if there is a dividend being received by the shareholders, then preferred stock would -- obviously the term "preferred" means they get a preference to dividends.

Q. So what does that do in your mind in terms of risk, then, of preference to dividends?

A. Risk to the preferred shareholder?

Q. Yes, as compared to the common shareholder.

A. I'd say in general terms, any time that you have a preference to dividends versus a common shareholder, then, obviously, you're first in line and more likely to receive dividends.

Q. Now, your recommended range for the return on common equity in this case is 9.45 percent to 10.25 percent. Is that right?

A. That's correct.

Q. And the cost of the preferred stock is 9.93 percent. Is that right?

A. That's correct.

Q. So would it be your testimony that the cost of equity is less than the cost of the preferred?

A. As of this point in time on a market base, that's my testimony.

Q. Would you agree with me that it's highly unlikely that an investor would ever interpret the preferred as having more risk than a common stock?
A. I think there is a very -- as far as dividends, a preferred stockholder would be considered less risky; but as far as prices, that fluctuates for various types of issues. So I cannot comment on that specifically.
Q. You don't know what an investor might think under those circumstances or how an investor might interpret the risk of the preferred when compared to the common stock?
A. Sir, repeat the question, please.
Q. You don't have an opinion on how an investor might interpret the risk of the preferred stock as opposed to the risk of the common stock?
A. That's correct.
Q. On your Schedule 16, if you could turn to that for a minute, please.
Am I correct in understanding that there you calculate an average of historical and projected growth?
A. I'm sorry. I was on page 16. I apologize.
Q. I'm sorry. Schedule 16.
A. That's correct.
Q. Now, when I look at that schedule, some of the numbers that I see are negative. Is that right?

A. That's correct.

Q. Some of the actual results are negative?

A. That's correct.

Q. And you've included those negatives in your calculations. Is that right?

A. That's correct.

Q. Now, and I think you said earlier that it was your understanding that the purpose of the DCF model is to determine the expectations which an investor might have. Is that right?

A. That's correct.

Q. And would it be fair to say that through this process we're trying to figure out what investors might think the future would hold based on what has happened in the past?

A. Investors will look in the past to see what they might think will occur in the future.

Q. Would it be your testimony that an investor would buy stock with a negative earnings expectation?

A. I can't comment with what an investor would specifically do.

Q. You don't know.

You don't have an opinion on that?

A. No.

Q. Would you buy a stock with a negative earnings expectation?

A. It depends on what the long-term projections are.

Q. Turning, again, to your eight comparable -- or your group of eight comparable companies, and I want to make sure I understand.

Is it your testimony that these eight companies are comparable to Southern Union?

A. Comparable to MGE, yes.

Q. Comparable to MGE?

A. Yes.

Q. But not comparable to Southern Union?

A. Well, comparable to both.

Q. And is it your testimony that these eight companies are comparable to each other?

A. If I was going to do an analysis of say, WGL, likely, these same groups would come into play. Southern Union may be included, may not be.

Q. I'm not sure I understand that.

Are you saying that these eight companies are comparable to each other?

A. Yes.

Q. And are comparable to Southern Union and/or MGE?

A. Yes.

Q. What is the difference between Southern Union and MGE in your mind?
A. Southern Union is the parent corporation with many operating subsidiaries, and, obviously, those that want to invest in MGE must invest in Southern Union.
And there's -- Southern Union, like I said, is where the debt and equities is generated for all of their subsidiaries.
Q. Is it fair to say that you're analyzing Southern Union Company for purposes of determining an appropriate return for MGE?
A. I believe it's appropriate to say I looked at Southern Union to determine a cost of equity for MGE.
Q. Would you agree that the return on equity of a company has something to do with the risk of the company?
A. Are you referring to actual return on equity or cost of capital?
Q. Well, let's try return on equity first.
A. I would say that the actual return on equity is not an indicator of the risk.
Q. How about the cost of capital, is that an indicator of the risk?
A. Yes, I would say so.
Q. So let me make sure I understand now.
Your testimony is that the return on equity of

a company has nothing to do with its risk?

A. The actual returns on equity, I mean, obviously, looking at a specific number such as 18 percent return on equity is not going to tell you how risky the company is.

Q. Okay. Looking at the -- once again, the eight companies that you have selected as comparable to Southern Union Company, have you calculated a return on equity -- estimated cost of common equity for each of those companies?

A. I'm sorry. Repeat the question.

Q. Have you calculated an estimated cost of common equity for each of those companies?

A. You're referring to Schedule 19?

Q. I have Schedule 18 in front of me.

A. Schedule 18.

You're asking me if I calculated specific cost of equity for all the eight companies?

Q. Yes.

A. That's correct.

Q. And that's shown in your column 5?

A. Yes.

Q. And is it fair to say that the range is from 8.42 percent on the low end for AGL Resources to 10.98 on the high side for Energy South?

A. According to column 5, that's correct.
Q. And that's about a 30 percent difference between the two?
A. I'll take your word for it.
Q. Okay. Thanks.
Would you agree that a 30 percent swaying of the cost of equity is very significant?
A. As far as the cost of equity? I don't know. It would be relative to what you're comparing it to.
Q. Well, comparing those two.
A. I would say a 30 percent cost of equity for -- a 30 percent increase in cost of equity for a company is going to have an effect on their future possibilities.
Q. If you apply that 30 percent difference to the mid point of your ROE range in this case, would you agree that we would be talking about something like a 13 percent return on equity for Southern Union?
A. Without doing the specific calculations, I can't tell you, but --
Q. Does that sound about right?
A. Like I said, without doing the specific calculations, I can't say.
Q. You don't -- okay.
Your Schedule 18 -- you're still there, aren't you, on Schedule 18?

A. Yes.

Q. It's the cost of equity that you've calculated on the DCF basis or using the DCF model. Right?

A. Yes.

Q. And then Schedule 19 you've calculated a cost of equity for your eight companies using the capital asset pricing or CAPM model. Is that right?

A. That's correct.

Q. And I think you indicated that in your Schedule 18, the cost of equity for AGL Resources is 8.42 percent. Right?

A. That's correct.

Q. Which was the lowest on that schedule. Is that right --

A. That's correct.

Q. -- on Schedule 18?

And then when you turn over to Schedule 19 where you do the CAPM, am I correct that AGL's cost of equity is among the highest. Is that right?

It shows 10.17 percent.

A. I would say tied for one of the highest, yes.

Q. Which one of those is wrong?

A. Once again, I think -- I don't know that you could necessarily say that one is wrong as far as the DCF.

We rely on the DCF calculation for our

determination of cost of equity. Some analysts may look to the CAPM, but we use the DCF. And that's what we rely on and feel is the most accurate way to calculate the cost of equity.

Q. On your Schedule 19, on your CAPM calculation, am I correct in understanding that the risk-free rate is the same for all companies and the market-risk premium is the same for all companies?

A. In my schedule, that's correct.

Q. Okay. Is it true that the only thing that varies there is the beta?

A. That is correct.

Q. And what is the beta?

A. For AGL Resources?

Q. Just generally speaking.

A. Just generally on average?

.57 on average.

Q. Okay. What does beta mean?

A. Oh. Beta is basically a measure of the volatility of the stock price compared to the market.

Q. Now, are you showing -- purporting to represent this as a measure of risk of an individual company or are you trying to show it in the portfolio context?

A. I don't think I -- by putting the beta in Column 2, I think my -- my idea was just to calculate the cost of equity, not to give any indication of risk when I put that column in there.

Q. Okay. On your Schedule 18, Energy South has the highest DCF return of 10.98 percent. Is that right?

A. That's correct.

Q. And would you agree that that indicates that it has the highest level of risk of those companies?

A. It would imply that, yes.

Q. And it has the next to the lowest beta. Is that right?

A. That's correct.

Q. Is the risk-free rate on Schedule 19 represented by the yield on 30-year treasury bonds?

A. That's correct.

Q. And would you agree that treasury bonds are tax favored, in that the interest paid is not subject to State income tax?

A. I understand they're not subject to various income taxes. As far as specifics, I don't know.

Q. You don't know whether or not treasury bonds are exempt from State income tax?

A. No.

Q. Okay. If that proved to be the case, would you agree that the risk-free rate would understate the actual competitive rate for a taxable instrument?

A. As far as the CAPM analysis, the idea is to use the risk-free rate. And the risk-free rate is generally accepted as a 30-year treasury bond or some other treasury bonds. So the use of the risk-free rate was based on literature.

Q. But it could understate the actual competitive rate for a taxable instrument. Is that not true?

A. As far as a taxable instrument, there may be some requirements for additional interest rate return because of tax considerations.

Q. Now, explain what you meant by that statement. You kind of lost me there.

A. Obviously, if you have to pay, say -- say, for instance, if you have a municipal security that you don't have to pay taxes on, that the bond investor that may invest, say, in a corporate bond where they don't have a tax preference, that is going to require a higher interest rate.

Q. Could it be that what you're doing here is using a tax-exempt rate to determine or figure out what a taxable rate should be?

Is that possible that that is what is going on here?

A. As I said, the risk-free rate, obviously, there is no true risk-free rate. There is interest rate volatility.

The risk-free rate I'm using is a 30-year treasury bond.

Q. Which, as I suggested, may have some tax-exempt figures with respect to State income tax, and you don't know whether that's true or not.

But assuming that it is, would you agree that you might be using a tax exempt rate to figure out what a taxable rate should be?

A. I don't have an opinion on that.

Q. Okay. If that were the case, shouldn't you make an adjustment to take that into account?

A. No.

Q. Now, Schedule 20 -- which I believe is an eight-page document analyzing risk premium. Is that correct?

A. That's correct.

Q. Is the risk premium stable or does it change through time?

A. It changes.

Q. I think you testified earlier that the interest coverage associated with your recommendation is to the very low end of the triple B rating. Is that correct?

A. Can you rephrase the question, or restate the question?

Q. The interest coverage associated with your recommendation is to the very low end of the triple B rating?
A. I indicate it may have been towards the low end of the range.
Q. And if your recommendation would be adopted and if there is any slippage or attrition, let's say, in sales or earnings to Missouri Gas Energy or Southern Union, wouldn't you agree that Southern Union would probably lose its bond rating?
A. I can't judge what an analyst -- what the credit rating agencies would do.
Q. Would you agree that when someone buys a stock which pays a dividend, they are buying the next dividend?
A. As far as the next year?
Q. The next dividend to be issued.
A. I think it depends on when they purchase it.
If there is a dividend declaration date, you have to buy it by a certain time.
Q. So when someone buys a stock which pays a dividend, they are buying the next dividend, or they're not?
A. Just as long as -- if they're purchasing a stock and they are able to buy it before the specific date that is required as far as the declaration date, then they

would be buying the next dividend.

Q. And if they didn't buy it by that time, they would miss that dividend but would get the next dividend. Is that right?

A. Yes.

Q. Okay. Did you make any explicit adjustment for this next dividend in your calculations?

A. I projected what the dividend would be for the next year, and that's the adjustment I made.

Q. That's the forecasted dividends adjustment you made?

A. That's correct.

Q. Are you familiar with the terms "flotation expense" or "preoffering pressure"?

A. I'm familiar with flotation expense.

Q. Okay. And can you define that?

A. It's basically the costs associated with issuing securities.

Q. Did you make an adjustment in this case for flotation expense?

A. No.

Q. Are you familiar with the term "preoffering pressure"

A. No.

Q. Is it your understanding that Southern Union

Company has issued stock in the past?
A. I'm sure they have, but I don't know specifically when and where.
Q. Do you believe Southern Union will issue stock in the future?
A. I don't know.
Q. Would you agree that the relatively high cost of natural gas and the general slowing of economic activity are factors which could result in a loss of sales for Missouri Gas Energy?
A. I have no opinion.
Q. So you haven't made an adjustment to account for the risk of this attrition?
A. No.
Q. Is it your understanding that the role of the Commission staff is to balance the interest of shareholders and customers?
A. Yes.
Q. And is it your role and -- understanding that the role of the Office of the Public Counsel is to be an advocate for the public, the rate-paying public?
A. I believe that's the role.
Q. Okay. And where is your -- what is your recommended ROE range in this case again?
A. 9.4 to 10.25.

Q. And is it your understanding that the Public Counsel has recommended a 9.9 ROE?
A. I believe that's correct.
Q. Do you know what other utility companies regulated by this Commission operate in Missouri Gas Energy service territories in Missouri?
A. In Missouri Gas Energy service territories?
Q. Yes.
A. Other natural gas distribution companies?
Q. Other regulated utilities.
A. As far as electric, one that comes to mind specifically is Empire.
Q. Okay. Any others?
A. Kansas City, I believe there is some Utilicorp business.
Q. How about Kansas City Power & Light Company, do they operate in Missouri Gas Energy's territory, do you know?
A. I don't know for sure.
Q. How about Utilicorp's Missouri Public Service or St. Joe Light and Power operations, do you know whether or not they operate in any of MGE's service territories?
A. I don't know for sure.
Q. Do you know whether any rural electric coops operate within MGE's service territory?

A. I don't know.

Q. Do you know whether or not any municipal electric or municipal gas systems operate in MGE's service territory?

A. I don't know.

Q. Do you know whether or not Missouri Gas Energy has a local gas distribution company competitor in the City of Ozark, Missouri?

A. Missouri Gas Energy have a local distribution company that competes against them specifically?

Q. Yes. In the City of Ozark, Missouri, an offshoot of Springfield Utilities.

A. I don't know for sure.

Q. You don't know one way or the other?

A. Exactly.

MR. SWEARENGEN: That's all we have. Thanks.

MR. HACK: Thank you.

MS. SHEMWELL: I have just a couple.

CROSS-EXAMINATION BY MS. SHEMWELL:

Q. Mr. Murray, has regulatory theory changed since 1998?

A. No.

Q. Has the DCF model changed since 1998?

A. Not as I've used it, no.

Q. This morning Mr. Swearengen asked you some

questions about your comparable group company. Do you remember that?
A. General terms, yes.
Q. Could you describe the risks associated with the criteria used?
A. There is a variety of risks with the criteria. I think I discussed generally that dividends per share would be considered a risk factor.
I think he also talked about distribution criteria. 90 percent distribution could be considered a risk factor.
Obviously, some of the facts -- the criteria in and of themselves don't imply that they are risk -- risk factors but whether or not they operate in Missouri, evidently, is regulatory -- obviously, there is regulatory risk that's involved.
So all of the criteria that was used was intended to narrow it down to a comparable group of natural distribution companies.
Q. Thank you.
Again, I don't know whether this was this morning or this afternoon, but Mr. Swearengen asked you some questions about indentures. Do you remember that line of questioning?
A. Yes.

Q. Do indentures have any impact on your analysis of Southern Union Gas's common stock?

A. As far as the common stock with the DCF analysis, that takes into consideration all factors that investors make look at when they invest in the shares of a company.

And so, obviously, if there is anything that is of concern or an investor wants to contemplate when it comes to an indenture agreement, they will take that into consideration.

MS. SHEMWELL: Thank you.

I think that's all I have for now.

Doug.

CROSS-EXAMINATION BY MR. MICHEEL:

Q. Mr. Murray, you had several questions about Southern Union Company's capital structure today.

Do you know who determines the company's capital structure?

A. Southern Union.

Q. The management?

A. The management.

Q. You also had some questions regarding testimony in GR-98-140. Do you recall those questions?

A. Yes.

Q. Do you know whether or not in that case the

Commission ended up giving our -- giving an adjustment for Southern Union's cost of equity capital due to their alleged low equity ratio?

A. I don't believe in the '98 case there was a specific adjustment.

Q. Do you know whether or not in the '98 case the Commission accepted Southern Union Company's actual capital structure -- did it use a hypothetical capital structure or an actual capital structure in GR-98-140?

A. I believe they used actual capital structure.

Q. You had some questioning about your use of the continuous growth DCF. Do you recall those questions?

A. Yes.

Q. Is it correct that the continuous growth model DCF is the model favored by the Commission?

A. Yes.

Q. And is that the model that the Commission adopted in GR-98-140?

A. Yes.

Q. Do you know who owns the controlling interest in the common stock of Southern Union Company?

A. I believe a large percentage of the family does.

Q. And what family is that?

A. I think the Lindemann family.

Q. And do you know whether or not Mr. Lindemann is also the chief executive officer of Southern Union Corp?

A. I don't know for sure.

MR. MICHEEL: Okay. That's all I have.

____
DAVID MURRAY

subscribed and sworn to before me this day of , 2001.

____
Notary Public in and for
County
State of Missouri

COPY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

I, Patricia A. Stewart, RPR, CCR, CSR, Registered Merit Reporter with the firm of Associated Court Reporters, Inc. do hereby certify that pursuant to notice, there came before me,

DAVID MURRAY,

at the law offices of Brydon, Swearengen & England, PC, 312 East Capitol Avenue, in the City of Jefferson, County of Cole, State of Missouri, on the 9th day of May, 2001, who was first duly sworn to testify to the whole truth of his knowledge concerning the matter in controversy aforesaid; that he was examined and his examination was then and there written in machine shorthand by me and afterwards typed under my supervision, and is fully and correctly set forth in the foregoing pages; and the witness and counsel waived presentment of this deposition to the witness, by me, and that the signature may be acknowledged by another notary public, and the deposition is now herewith returned.

I further certify that I am neither attorney nor counsel for, nor related to, nor employed by any party to said action in which this deposition is taken; and further, that I am not a relative of employee of any attorney or counsel employed by the parties hereto, nor finally interested in this action.

Given at my office in the City of Jefferson, State of Missouri, this 11th of May, 2001.

Patricia A. Stewart

Patricia A. Stewart, RPR, CSR, CCR
Registered Merit Reporter

May 11, 2001

Missouri Public Service Commission
Governor Office Building, Suite 800
200 Madison Street
Jefferson City, Missouri 65101

ATTN: Lera L. Shemwell

In Re: Missouri Gas Energy

Dear Ms. Shemwell:

Please find enclosed your copy of the deposition of David Murray taken on May 9th, 2001 in the above-referenced case. Also enclosed is the original signature page and errata sheet.

Please have the witness read your copy of the transcript, indicate any changes and/or corrections desired on the errata sheet, and sign the signature page before a notary public.

Please return the errata sheet and notarized signature page to Mr. Swearengen for filing prior to trial date.

Thank you for your attention to this matter.

Sincerely,

Patricia A. Stewart

Patricia A. Stewart

Encl:

CC: James Swearengen
Stuart Conrad
Jeremiah Finnegan
Douglas E. Micheel

17,987

Exhibit No.:	
Issues:	Rate of Return
Witness:	Ronald L. Bible
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Direct Testimony
Case No.:	GR-98-140

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

RONALD L. BIBLE

MISSOURI GAS ENERGY A DIVISION OF SOUTHERN UNION COMPANY

CASE NO. GR-98-140

Jefferson City, Missouri
March 1998

1
EXHIBIT
pcs 5-9-01

DIRECT TESTIMONY

OF

RONALD L. BIBLE

MISSOURI GAS ENERGY, a division of

SOUTHERN UNION COMPANY

CASE NO. GR-98-140

Q. Please state your name.

A. My name is Ronald L. Bible.

Q. Please state your business address.

A. My business address is P.O. Box 360, Jefferson City, Missouri, 65102.

Q. What is your present occupation?

A. I am employed as a Manager, Financial Analysis Department for the Missouri Public Service Commission. I accepted this position in August 1997.

Q. Were you previously employed before you joined the Commission's staff (Staff)?

A. Yes, I was employed by Credit Union National Association from 1995 to 1997 and American Express from 1991 to 1995, as a Financial and Investment Analyst/Planner.

Q. What is your educational background?

A. In 1981, I earned a Master of Business Administration degree with an emphasis in Finance and Investments from the Southern Illinois University at Edwardsville.

Q. What is the purpose of your testimony in this case?

A. My testimony is presented to provide a recommendation to the Commission as to a fair and reasonable rate of return for Southern Union Company's Missouri Gas Energy Division's rate base.

Q. Have you prepared any schedules to your analysis of the cost of capital for Southern Union?

A. Yes. I am sponsoring a study entitled "An Analysis of the Cost of Capital for Missouri Gas Energy, a division of Southern Union Company, Case No. GR-98-140" consisting of 32 schedules which are attached to this direct testimony (see Schedule 1).

Q. What do you conclude is the cost of capital for Southern Union Gas Company?

A. My analysis leads me to conclude that the cost of capital for Southern Union Company (Southern Union or Company) is in the range of 9.35 to 9.55 percent.

Economic and Legal Rationale for Regulation

Q. Why are the prices charged to customers by utilities such as Southern Union regulated?

A. A primary purpose of price regulation is to restrain the exercise of monopoly power. Monopoly power represents the ability to charge excessive or unduly discriminatory prices. Monopoly power may arise from the presence of economies of scale and/or from the granting of a monopoly franchise.

For services that operate efficiently and have the ability to achieve economies of scale, a monopoly is the most efficient form of market organization. Utility companies can supply service at lower costs if the duplication of facilities by competitors is avoided. This allows the use of larger and more efficient equipment and results in lower per unit costs. For instance, it may cost more to have two or more competing companies maintaining duplicate natural gas distribution systems and providing competing residential services to one household. This situation could result in price wars and lead to unsatisfactory and perhaps irregular service. For these reasons, exclusive rights may be granted to a single utility to provide service to a given territory. This also creates a more stable environment for operating the utility company. Utility regulation acts as a substitute for the economic control of market competition and allows the consumer to receive adequate utility service at a reasonable price.