CASE NUMBER:

99-176

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

CASE NO. 99-176

RE: DELTA NATURAL GAS COMPANY

Pursuant to notice duly given, the above-styled matter came to be heard October 29, 1999, at 9:00 a.m. in the Hearing Room of the Kentucky Public Service Commission, 730 Schenkel Lane, Frankfort, Kentucky 40601; The Honorable B. J. Helton presiding.

VOLUME II OF II

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BEFORE THE

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RE: DELTA NATURAL GAS COMPANY

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PUBLIC SERVICE COMMISSION

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CHAIRMAN HELTON:

Mr. Wuetcher:

MR. WUETCHER:

Thank you.

The witness, WILLIAM STEVEN SEELYE, having been previously sworn, testified as follows:

CROSS EXAMINATION

BY MR. WUETCHER:

Q Good morning Mr. Seelye.

A Good morning Mr. Wuetcher.

Q Let me start off with some loose ends and then work from there. First, has Delta performed a marginal cost analysis to support its position that the wages and salaries vary directly with the number of customers?

A No.

Q Okay. Has Delta had any study--never mind. Has Delta performed a marginal cost analysis to support its expense to revenue ratio?

A No.

Q To your knowledge, has Delta's 1999 bad debt expense increased or decreased when compared to the same period in 1998?

A Could you repeat the question, I--
Q Okay, let me--to your knowledge has Delta's 1999 bad debt expense increased when compared to the same period in 1998?
A I don't know.
Q Okay. Are you aware of any change in the bad debt expense from 1999 compared to 1998?
A The only thing I'm aware of is the information that was cited by Mr. Henkes in his testimony.
Q Okay.
A But I'm not aware of any other changes other than what has been discussed in the past day.
Q All right. Could Delta provide to the Commission a monthly comparison of Delta's bad debt expense for 1998 and 1999?

MR. WATT:

Was that a question, did we or could we?

MR. WUETCHER:

Could you?

MR. WATT:

A monthly comparison, is that what you said?

MR. WUETCHER:

Yes, sir, if you could compare the, I guess, the bad debt expense for each month in 1998 and then show what the expense would be for each month of 1999 up to wherever the knowledge is current. I assume that would be to the end of September?

MR. WATT:

Okay.

Q Mr. Seelye, does the current practice of including customer deposit interest and operating expenses in not reducing rate base by the customer deposit balance allow double recovery of interest paid on customer deposits?

A I don't believe it does. I believe that the methodology that is used is consistent with Commission practice of not reducing rate base by that. It is a different component that is not, typically, in Kentucky reduced by rate base, so I don't believe it does allow double recovery.

Q In your cost of service analysis other, than the development of a regression analysis for distribution cost, how did you determine the method to functionalize the various segments of cost between demand and commodity?

A Between demand and commodity the costs that were separated between demand and commodity in the cost of service study related to storage. The storage component was allocated on the basis of winter season commodity, and the reason for that is that storage is utilized throughout the winter season, therefore, commodity was used for that component. The rest of Delta's cost in--that are subject to this rate case, are primarily fixed costs and, therefore, the balance of the costs are allocated or classified as either customer related or demand related. The other major component of cost which is not being considered here that is commodity related is gas supply cost. But, again, that is not included in the base rates that we are dealing with, therefore, it wasn't dealt with in the cost of service study. But the other fixed costs were allocated between customer and demand.

Q Would you agree with Mr. Galligan's modifications to the allocation--let me start back over again. Would you agree that Mr.

Galligan's modifications to the allocation process has the effect of substantially reducing the cost to the residential customer while significantly raising the cost of serving commercial and industrial customers?
A Yes.
Q Okay. Assuming the Commission were to accept Mr. Galligan's recommendations and establish rates based on his results, what would be the effect on Delta's operations in the long run?
A On Delta's operations, I'm not sure it would have a direct impact on Delta's operations, per se. It would change--the purpose of the cost of service study is to determine an appropriate way to allocate costs and if Delta changes its rates, I'm not sure if it ends up affecting the rates that it charges its customers, I think Delta will continue to operate in the same manner that it is currently operating in. It is just a rate design. It would have an effect, possibly, on the way that rates are designed. Therefore, I don't believe it would have an effect on operations.

Q Maybe you didn't understand my question, probably because I worded it a little poorly. Let's assume the Commission accepts Mr. Galligan's recommendations and then, based on his cost of service study results, designed rates that reflect those costs, then in that circumstance, would there be an impact on Delta's long run operations? We are now changing the rates based upon the recommendations made by the Attorney General.

A Let me think about that for a second. On its operations, it would change the rates that are being charged to the customers, obviously. And it would change, perhaps, the way the gas is perceived or marketed by the customer. What impact it would have on the overall operations, it would prob--it would make commercial and industrial service less competitive. And in an area where they are trying to encourage economic development in rural areas, I think it would hinder that effort. Therefore, it would have an effect on the overall business, Delta's overall business, because it would--as Mr. Hazelrigg testified earlier, Delta is already having trouble in terms of being competitive with commercial industrial customers. By increasing significantly commercial industrial rates that aren't competitive, it would even put more pressure on them and they probably couldn't add any high load factor gas load and it would probably hinder economic development in rural Kentucky.

Q In your opinion, how valid is the theory underlying the zero intercept methodology? That is a single variable linear relationship between the unit cost of mains and dollars per foot and the gas flow capability of the pipe, which is proportionate to its diameter?

A I think it is a valid methodology.

Q Could you elaborate on it? Is it an accepted industry standard?

A It is probably the accepted industry standard, if you look around the country, for classifying mains as well as in the electric business conductors, transformers, underground conductors. It is often used where it's a little less certain is in the case of electric poles, but it is a very--it is a standard methodology that is accepted in the industry, probably, the methodology that you use more often than not. At one time the minimum system was probably used more frequently but the zero intercept has overtaken that in most jurisdictions that I'm aware of.

Q Let's kind of elaborate on that issue, very briefly. When you state that it is a valid method from an industry standard or from an economic standard, ecometrics--econometrics standard, would it be valid from that point?

A Yes, it is also valid from an econometrics standpoint. What you are trying to do is determine the cost, the fixed cost, the non-demand related cost of providing services to customers, therefore, what you are trying to do is to determine the amount of cost that do not vary with the size of the pipe in this case, with--is related to the load carrying capability of that pipe. Therefore, it represents the fixed customer related portion of the mains, therefore, it is theoretically sound as well as a standard industry methodology.

Q Why not a multi-variant specification, more than one theory--independent variable be used?

A I'm not aware of any other variant that could be used, it--this is going to complicate it a little bit, but the methodology that we do use is a multi-variant regression. And the weighted--I knew I'd get some unusual looks on this one here--but the model that is being used, because it is weighted regression, there are two variables in it, one variable is the size of the pipe, the square root of N, that is a varied in the model. The other varied is the square root of N times the size of the main, therefore, the model we use is, in fact, a multi-varied regression analysis. Now, there are not two econometric variables that are utilized, therefore, it is not a multi-varied analysis in the sense that you are probably asking the question.

Q Concerning the independent variable of the size of the pipe in diameter, is it valid to treat plastic pipe and steel pipe as the same variable?

A I believe it is because that reflects what is embedded in their system. In order to do otherwise you would have to--some methodologies that I've seen brings it up to current levels which would assume that all pipe is plastic, but that doesn't reflect the reality on--or the embedded cost on Delta's system. Therefore, this methodology takes into consideration all the pipe that exists on the system, both standard steel pipe as well as plastic. And, as a matter of fact, on the other studies I've done on gas included like wrought iron pipe which goes way back. But all of those are included on the books of the utility, therefore, it should be used.

Q Why is the unit cost of three inch plastic pipe so low relative to other sizes?

A Plastic--there is probably more--is it lower than--let me get that out--can you refer to an exhibit or something that I can look at?

Q It is your Exhibit 4-1.

A Okay. The question again is?

Q Well, let me go ahead and refer you--if you look at Exhibit 4-1 and you go down to the distribution main pipe, three inch plastic, and then go over to unit cost per foot, that appears to be significantly lower than the other sizes of pipe that immediately surround it.

A I can only speculate.

Q Okay.

A The--what I would guess is that in the past several years Delta has installed quite a lot of four inch pipe, therefore, they have not recently installed as much three inch pipe in order to provide--on mains. Therefore, the three inch plastic pipe is probably of an older vintage than the four inch plastic pipe, therefore, the four inch plastic pipe is probably more representative of current prices and is weighted up because they have installed more of that recently. That would be my guess. I could probably--I'm getting some nods from Delta so I suspect that is the correct answer.

Q Would that explanation also explain why steel pipes cost less than their plastic counter parts of the same size?

A That's one element of it, yes, because that--the steel pipe is an older pipe, most utilities put in plastic pipe now days as opposed to steel pipe. So, it is a more current--more current cost.
Q Are the costs that are set forth in Exhibit 4-1 adjusted for inflation?
A No.
Q They are actual costs?
A These are actual book costs, embedded cost on the books.
Q In preparing the exhibit or obtaining the results that are set forth in Exhibit 4-1, were there any adjustments made of a time series nature?
A Of a time--no.
Q What, if any, tests were done to check for heteroskedasticity, let me spell that because I'm probably mispronouncing it, h-e-t-e-r-o-s-k-e-d-a-s-t-i-c-i-t-y?
A Right. I didn't do any tests to check for heteroskedasticity. Heteroskedasticity is inherent whenever you calculate averages. And when you are taking average unit cost the

variance of the--the air variance, if you will, will be in direct proportion to one over n, therefore, it is inherent any time that you are taking average data. That is in the standard literature on regression analysis.

Q Okay. Let me refer you to page 13 of your direct testimony, I believe this is the direct testimony in the 99-176.

A You said 13?

Q Yes, sir.

A I'm there.

Q Okay. At that page you indicate that the correlation coefficient R square for mains is 0.8286?

A Yes.

Q And that this measures the goodness of fifth of the equation?

A Yes.

Q Is it not the case that this is the coefficient of determination, not the correlation coefficient?

A I thought R was the correlation--coefficient of determination and R squared was the correlation coefficient, do I have that reversed? Do I have it reversed, okay.

Q Let me go ahead now and move back to the Alternate Regulation Plan that you propose. Can you tell me when was the Prime Group retained to develop the Alternative Regulation Plan?

A Which month?

Q Well, generally which month?

A Okay. I believe it was December of last year, so it was December 1998, I believe is when it was.

Q Okay. When the Prime Group was retained I take it --were there any other consultants besides yourself that--

A Involved in it?

Q Yes, sir.

A No.

Q Okay. What instructions were you given by Delta concerning development of the Alternative Regulation Plan?

A Instructions may be a strong word, but what we were asked to look at is the implementation of a model that was similar to the Alagasco model.

Q Okay. You were not given any guidance to review the plans in other states aside from those in Alabama?

A Not specifically. Now, let me say that Delta indicated that they were open to other considerations and I did look--did a Lexus search of other plans in other states and as a part of doing that I didn't undercover a lot. Okay. What I found in most jurisdictions was more performance based rate making mechanisms as opposed to what we were considering Alternative Regulation Plans. And the difference is that the performance based rate making is not intended to take the place fully of regulation. It would--it wouldn't eliminate the need for a general rate case. It would operate within the consideration of certain performance based measures. Okay, therefore, we found, in fact, more of that in my Lexus search than alternative regulation. What I did find is some states are currently investigating, considering alternative regulation. I also found alternative regulation used heavily in

the telephone industry, especially, about ten years ago there was quite a lot of alternative regulation used there.
Q Well, let me interrupt you, when you say some states were investigating it, then let's explore your search for a second. What states in particular did you review and, following up on that, what particular companies outside of the State of Alabama had plans or were looking at plans?
A Okay. None had plans that were similar to the one that we are looking at here but other states that we looked at, Alabama had some, Mississippi had one, and Alabama. Those are the three states that I'm aware of that has--
Q I'm sorry, you said Alabama and Mississippi and then said Alabama again.
A Oh, I'm sorry, Georgia.
Q Georgia.
A Georgia, I'm sorry, thinking Georgia and said Alabama.
Q I'm not sure the--a Georgian would take exception to that.
A They probably would.

Q Mr. Jennings mentioned Atlanta Gaslight Company yesterday and, obviously, references have been made to Alabama Power and Alagasco, what other utilities besides those three?
A I believe it was Mississippi Power Company has one as well. And theirs is completely different and much, much more complicated.
Q Can you provide us with a copy of the Mississippi Power Company's plan?
A I can probably get one, I'm not sure if I currently have one, but the head of rates used to--that is currently there used to work for me at LG&E so I can contact him and get that.
Q Outside of those three states, you found no other--
A No other--I couldn't find any other states. I'm aware of some mechanisms that were used in the past that the experiment was put in and they--for a few years and then it was abandoned. There was one in New Jersey, I believe, several years ago.
Q Could you provide us at least with the name of the utility and the--if you have a case

reference to those utilities that had such a plan and then either abandoned it or had a-- in any of those instances, was it a circumstance where the state public utility commission directed that the plan be discontinued?

A Okay. I'll have to find that out. This is based on recollection there.

Q Okay.

A And it was several years ago, I would review literature, trade literature and I remember that going on in New Jersey. And, like I said, where I have seen more of it than any other place is in the telephone industry.

MR. WATT:

Your Honor, may I confirm that I have this request properly?

CHAIRMAN HELTON:

Sure.

MR. WATT:

Jerry, I've written down that you would like to have the names of the utilities, the case numbers and the reasons for the abandonment of Alt Reg Plans?

MR. WUETCHER:

No, we'd like to have the names of the utility.

MR. WATT:

Okay.

MR. WUETCHER:

The order, if there is such, in creating the--or approving the plan, if you can provide it, or at least a citation to the order so that we could obtain it either electronically or through that state commission. And then, if the plan were discontinued, if you could indicate whether it was discontinued at the request--at the utility's own decision or whether it was discontinued as a result of the state regulator and then a reference, if there is one, a citation to the decision of the utility regulator ordering that the plan be discontinued.

A Let me point out one thing about the New Jersey, I was surprised when I did my Lexus--or it may be hard to find this because I did not uncover that when I did the Lexus search.

So, that may be a hard one to find, but we will see if we can't do that.

Q Okay. To the extent that--I think, primarily, what we are looking for at this moment is just the extent of your review, so we are certainly--while we would certainly appreciate any new research you might want to do, at least what--if you can review your files as to what you have, have now and what you had when you were planning the alternative proposal?

A Yes, sir.

Q Let me make sure I understand. When you began your work you were--were you looking at two different options, PBR or alternative regulation or focusing solely on alternative regulation?

A When we began our review, it was solely on alternative regulation and not PBR. PBR, or performance based elements, was a concept we knew would come up and we were hoping to work that out in a more consensual or collaborative manner with all the parties. And that is why it was not included in the original filing, because we knew that that could evolve in any of several directions. And what we were primarily interested in was alternative forms of regulation, something that could, in effect, take the place of standard rate case filings. And there is, in our view, there is a big difference between alternative regulation and PBR. But there is no reason that the two can't work together.

Q Okay.

CHAIRMAN HELTON:

But by the same token, in the sense that you are using alternative regulation, what you were looking at was rate stabilization plans and no other forms of alternative regulation because there are plenty of other forms of alternative regulation?

A Yes, that's how we were defining and using the term alternative regulation. That's how we were looking at it.

Q When you were doing your search, did you speak or interview any officials from other utilities?

A From other utilities? I did speak with people at Alabama Power Company and I have since spoken--not when I was doing the review, but I have since spoken with people at Mississippi Power Company.

Q Okay. You did not speak with anyone from Alagasco?

A No, I didn't, personally, no.

Q Did you speak with anyone from the regulatory agencies that were overseeing the plan?

A Yes, I did.

Q Okay. Who--first, what commissions and then if you could be a little bit more specific and at least identify what position--

A Okay. The only commission that I spoke to or commission staff, or commission that I spoke to, I spoke to a staff member from the Alabama Public Service Commission. And the person I talked to there was Bob Reed.

Q And what was his involvement in--what is his position with the Alabama Public Service Commission and what was his involvement in the development or implementation of the plans?

A I'm not sure that he was involved in the development, he didn't say. He is involved in the ongoing implementation, the ongoing operation of the mechanism. He is the supervisor in charge of the gas program. There is a separate supervisor over the electric program in the state and I didn't talk to that individual. But Bob is the person that is in charge of compliance, if you will, of the mechanism. He is also in charge of any reviews that are conducted of the mechanism.

Q When you say he is in charge, are you saying that his division or people under him are in charge or responsible?

A Yes, he and people that report to him are in charge of monitoring the mechanism.

Q Do you know the extent of his personal involvement in the monitoring?

A Yes, he is very involved in the monitoring of it, and he is the person at the staff that is--I was informed, it took me a little while to get to the correct person because I called a couple other people, or called one other person and they said, oh, you need to talk to Bob Reed and, therefore, I ended up with Bob and he was very knowledgeable of it.

Q Okay. Aside from the officials you spoke with at Alabama Power and the official at the Alabama Public Service Commission, were there any other persons that you consulted in the development of your program outside of Delta and your consulting group?
A No.
Q Okay. Would you agree with the statement that, as originally proposed, Delta's plan was a rate stabilization plan?
A Yes.
Q And it had no cost controls?
A Limited cost controls.
Q Would you say that the principal purpose was to insure that Delta's rate of return would be within a certain range?
A Yes, not go above that range or below that range.
Q Okay. Did you draft or participate in the drafting of the February 5, 1999, letter that was part of the rate filing?
A I drafted that letter.
Q Okay. I think in the letter it refers to the Alternative Rate Regulation as a method for the

Public Service Commission fulfilling its statutory obligations under KRS 278.030?
A Yes, sir.
Q In your opinion, does the Public Service Commission have a statutory obligation to insure that a utility earns an authorized rate of return?
A I wouldn't characterize it exactly like that, no.
Q Okay. Well, then, I guess--let me follow that up by asking is it your opinion that the PSC has merely the statutory duty to provide the utility with an opportunity to earn a reasonable rate of return?
A I would agree with that.
Q There is no duty then to insure that the utility earns that rate of return?
A No, I agree with your statement.
Q Well, then, would you agree that it is the responsibility of utility management to insure that the rate of return is earned?
A Well, I think that is as little bit more complex issue, because the--if they--the regulatory environment can be such where they--it may be very difficult, in spite of

the efforts of traditional regulation, to provide a reasonable opportunity to earn a return. So, I think it is more complex than just to say that it is completely under management control, because the traditional regulation, as well as it has worked in Kentucky, I think there are other alternatives that could provide a better means for providing an opportunity for the utility to earn a fair, just and reasonable return.

Q Well, would you agree that there are tools available under the traditional system of regulation that management can use to earn the authorized rate of return?

A Yes.

Q And would that include a constant monitoring of the utility's operations and finances?

A Yes.

Q Would that include, I guess, reviewing rates to insure they adequately protect the utility's financial integrity?

A Yes.

Q Would it also include taking corrective actions when necessary, such as applying for new rates or implementing cost cutting procedures?

A Yes.

Q There are several benefits that are listed to the Alternative Regulation proposal, and I guess one of them that you list is that the proposal will insure Delta's rate of return is within authorized limits; correct?

A Yes.

Q How is that a benefit to either the public or to the regulatory commission that is overseeing the utility?

A Okay, that's a benefit to both the--for everyone, I think, because it insures that the utility in a very simple manner, and what I mean by simple manner, in a very efficient way, just stays within the range. Or does not over-earn. You see a utility given changes in the marginal cost can be in a situation where at times they may have an opportunity to over-earn. The mechanism, in a very efficient way, allows the utility to bring down its rates so that the rate of return falls within that range. Therefore, I think that is a real--a very real benefit that is, to a large extent, I think, lost in this case a little bit.

Q Well, to the extent that there is a possible--well, I think you had discussed this yesterday with Ms. Blackburn, and I don't want to go into it very much--Blackford, but I won't go into it very much, but right now has the problem been the regulated utility over-earning, in Delta's case?

A In Delta's case, no.

Q Okay. To the extent that there were any type of over-earning don't existing mechanisms--well, aren't there existing mechanisms that can prevent that or bring the utility back in place?

A Yes, there are existing mechanisms, however, this mechanism is much more efficient in doing that because it is automatic. You don't have to have as party file a complaint. The Commission doesn't have to have a show cause case or something to bring the utility in to reduce its rates, which in a lot of jurisdictions isn't done very much because of the complexity of a rate case and so forth, for whatever reason. This is--this provides a much more efficient way to bring the utility's rate of return up or to bring it down, to keep it within the range that is authorized by the Commission.

Q And your assumption in stating that, though, is that the automatic mechanisms are going to be less costly than, for example, a PSC review proceeding in an over-earnings case?

A That's one element of it, much more efficient because it automatically does this.

Q Now, the other side to the insuring the rate of return is it's, basically, a protection for the utility is it not? The utility is protected from under-earnings?

A Yes, that is an important element as well.

Q Okay. And aren't there also existing mechanisms within the traditional framework that will insure that? For example--

A Yes, filing a rate case.

Q Filing a rate case, how about simply, as we talked about before, management's efforts to control costs?

A Yes, that is as element.

Q How about weather normalization?

A Weather normalization is not a mechanism that currently exists for Delta. Weather normalization is something that could be implemented and that would certainly help. And in part it would take the place of some of the things that would be accomplished through the Alt Reg Plan.

Q You also stated that the proposed plan is consistent with the priciplism of--with the principle of gradualism, that being, I guess, smaller rate increases annually than one large increase?

A Yes.

Q In some respect, would the weather normalization factor also do that?

A In making the comment that I made about gradualism, I'm getting at a different point. Weather normalization takes care of fluctuations from year to year in weather. Okay? The point I was making with respect to gradualism is that utilities costs, they may be in an increasing or decreasing mode rather than allowing this either excess of earnings to build up or a deficiency to build up before a utility files a rate initiative or before the company is called in to reduce their rates, this provides a much more gradual way of reflecting those costs into rates.

Q The next benefit you list is that it is less resource intensive?

A Yes, sir.

Q Okay. And I think you--under that you gave four reasons, one is that the utility can focus on its business and not regulatory proceedings?

A Yes.

Q The company saves money because it has less costs incurred because of these regulatory proceedings are avoided?

A Yes.

Q The Commission saves resources and time because it is not devoting resources towards a rate case; is that correct?

A Yes.

Q And then there is, I guess, just as as general comment you make, that it is less resource intensive because this process is a less adversarial process; is that right?
A Yes, presumably.
Q Would you agree that before any claim can be made that the proposed plan results in a less resource intensive process, all parties have to know all the details of the process?
A I believe that is helpful if all parties understand it. If all parties can work together in a reasonable fashion, I think it makes it work much better.
Q Well, let me step back on that so I--you said that this is going to be--this plan will produce a less resource intensive process. But for us--for anyone to determine whether it is going to be less resource intensive, isn't it necessary to know the exact details of the plan and how the review process is going to be done before you can make that claim?
A I agree in part. I believe that--yes, I'll just agree with it, yes.

Q Okay. Well, would you agree that the plan, as submitted, either in the first filing that was made in 99-046 or as it was subsequently filed in the general rate adjustment proceeding, that it is lacking in a few specifics?

A Yes, and we anticipated that those specifics would be developed in the course of this proceeding.

Q Well, let's go--I guess I'm just trying to make sure I understand what is needed and what is not there right--is there any provision in the existing proposal that relates to a prohibition against rate adjustment filings while the plan is in effect?

A No.

Q Okay. Is there any expiration date in the proposed tariff?

A The expiration date was stated throughout testimony and stated throughout data requests. I don't believe that that needs to be set forth in the tariff if it is in the Commission's order approving it. But we don't have any objection, Delta doesn't have any objection of stating that in the tariff. That is not any big deal. The tariff could be modified to do that.

Q Okay. Were there any work sheets on the calculation of the various components?

A Work sheets of the various components, yes.

Q Okay. As--well, let me--Delta used the Alagasco plan as a model?

A Yes, yes.

Q Would you agree that there are detailed work sheets in the Alagasco plan as to specific expenses that would be removed, that those types of work sheets are not in the Delta proposal?

A Yes. And, again, if I could elaborate on that.

Q Sure.

A We anticipated that those--whatever requirements that are necessary for the--that the Commission feels necessary would be developed throughout the course of this proceeding. There are lots of things in the Alagasco tariff that we, frankly, thought would be presumptuous to even include in, therefore, we didn't use a lot of it because we didn't think it was appropriate. We thought that throughout the course of this proceeding that these items, whatever was important, even things that may not be in the Alagasco tariff, would be developed, fleshed out, included in the tariff, whatever those are.

Q Well, let me follow that up, because it seemed like part of Delta's approach was to put a proposal on the table and then have the parties and the Commission staff and the Commissioners kind of hash it out, to work to some type of--and I hesitate to use the word, but a collaborative process that comes to an agreed result; is that correct?

A Yes.

Q Now--and I take it, based on your experience that the Louisville Gas & Electric Company, you have seen that work. Was that not the case of how it was done with the demand side management program?

A Yes, sir, it was, if I could elaborate. We had very good experience working in a collaborative manner at LG&E.

Q Okay. And I'm sorry to interrupt, but since I'm trying to impose a time limit on what I'm--

A I'm sorry.

Q In the LG&E case you had several diverse parties, did you not?

A Yes.

Q You had the industrial customers?

A Yes.

Q You had the Attorney General?

A Yes.

Q You had several low income groups?

A Yes.

Q You had several local governmental units?

A Yes.

Q Okay. And in this case, now, you have only got the Attorney General you really have to deal with; is that correct?

A That's correct.

Q Okay. In that case, was not the plan developed and then submitted to the Commission still as a proposal before--so it was fully fleshed out before the Commission even saw it?

A Yes.

Q Okay. Was there any attempt made by Delta to at least flesh out the procedure with the Attorney General's Office before the plan was filed with the Commission?

A I can't remember the exact timing on this, but there was certainly an effort to flesh this out. I can't remember if the meeting to do that was before or after the filing. It seems to me that we tried to set up a meeting before we even filed it, but I can't remember the exact sequence in it. The intention was certainly to try to work it out in a collaborative manner, though, whether it was done before or after the filing.

Q Well, would you agree, for example, that some of the provisions that might be--that are contained in the Alagasco plan that are designed to meet the consumer protection advocate's plans are missing from this one, and the only specific I've got noted is there is a provision in the Alagasco plan that allows for filings to be made directly--or requires filings to me made or copies of filings to be submitted to the Attorney General's Office of the Consumer Representative?

A Yes, that is the type of thing that is almost always presumed in Kentucky. And we would, as a matter of course, provide the Attorney General with any filing we made. We didn't view that as being necessary but it is nothing that I think anybody would object to.

Q Well, to the extent that you had the Alagasco plan there and you were lifting significant portions from it, are you saying we should not read anything from the fact that those provisions that were not lifted from it suggested in any way that the utility did not intend to--

A Yes, that's correct. We tried--let me say, we used the Alagasco model as a regulatory model, okay. We didn't try to capture all the nuances of the terms and conditions that were set forth in the tariff. We generally--Randall Walker and I, who developed the tariff language together, we developed it along the lines that we are familiar with in Kentucky. We--Randall and I have developed several tariffs and--that are similar to this, for example, the DSM, the demand side management tariff that you referred to, and the gas supply cost tariff, we tried to implement terms and conditions that are more standard in Kentucky tariffs as opposed to language that they may be used to in Alabama. You should not read into that that we have any problem with certain--some of those terms and conditions that are in there, many of them are reasonable.

Q You would agree that, to the extent that a reservation has been made by the utility as to whether it will implement or accept any changes made by the Commission to the proposed tariff when there is, what could be considered, an area where there are as lot of specifics missing, presents some problems for the regulators? If you are presenting a proposal on the table which you intend for the regulator to change or add additional portions to, and yet reserving the right to not accept it if it is not enacted in whole, presents a problem for the regulator, doesn't it?

A Yes, I believe that is a function of the formality of what we are doing and, to a large extent, what we are faced with is a situation where you file something formally and it has got to be reviewed formally without any give and take throughout the proceeding, therefore, I think it does present a problem to regulators. I think it presents a problem to the utility. I think it is the rigid-- the formality that we must operate in and this case presents a problem as far as trying to colloborately work things out. I agree, it is a problem but that is just the way it is in a formal proceeding.

Q Okay. As far as review of how the mechanism is going to work, if we could go through that because I'm a little bit unclear on that. As it currently stands there is a three year review that Delta is proposing; is that right?

A Yes.

Q Now, initially, that three year review will be to determine whether the plan should go forward or just be ended?

A Yes.

Q And I assume that if the Commission were to determine that the plan goes forward, then this would be a three year cycle in which every three years the utility would come in for a review.

A I think that would make some sense.

Q Okay. And as far as that review, what--I'm not sure I understood from your responses to Ms. Blackford yesterday, but will these three year reviews basically be rate cases?

A They would be an evaluation of base rates. They could be done--this review would, hopefully, be done in a more collaborative, consensual manner than a formal rate case. But, ultimately, it may end up being a formal evaluation rate case, if you will, concerning Delta's base rates.

Q Well, in making a review of the base rates, would the--would a cost of service study be required?

A I would envision a cost of service study being done as a part of that review, yes.

Q Okay. How about a study--I assume a cost--a study of the cost of capital would also necessarily be required?

A The exception to that is that if you could collaboratively work it out. If you--if there is a disagreement on that cost of--a cost of capital would have to be evaluated.

Q How does that differ from an existing rate case to the extent the parties meet and say, let's stipulate what we are in agreement on?

A It may not be a lot different than a rate case on that three year review. It depends on--it depends on if the mechanism--if everybody can get comfortable with the mechanism, you may be able to work it out, sit down at the table ad work it out outside of the standard framework. But it may not be that way, because I think the danger of doing otherwise is, obviously, due process issues. If there is a difference in opinion with respect to the cost of capital, it may have to be a formal review and it may not be a lot different than a rate case.

VICE CHAIRMAN HOLMES:

You're saying conceivably that if this was adopted, you could have a rate case every three years?

A We hope not, but that is possible.

Q Is that--has that been the experience in Alabama?

A No, it has not been the experience in Alabama.

Q And has that been because the parties have reached an agreement on the mechanism?

A Yes. The parties, in talking to Bob Reed, the parties feel comfortable with the mechanism. The mechanism has been in place a number of years, the commission feels very comfortable with the utility's cost structure. There has been some issues that come up over the years, corrective measures have been taken, changes have been made to the modification--or the mechanism to make it more workable and they view it as a dynamic changing process.

Q Okay. We have talked about the three year review, let's go back now, there is going to be--your plan envisions an annual review for certain of the components. Now, what issues

are going to be involved with the annual review? I take it some of the things that will be missing will be the cost of service study?
A Yes.
Q The--
A ROE determination.
Q Okay. Any other provisions that will be missing that would normally be found in the three year review?
A Yes, rate design provisions, you wouldn't--unless there was some need--Mr. Jennings spoke to earlier that there could be a need for some modification, a new tariff, for example, a new tariff sheet. Because the marketplace is very dynamic and there may be some changes. But, normally, that wouldn't be a part of the annual review.
Q You had mentioned earlier, in response to why the annual review would not be as adversarial, you mentioned that you don't get into non-recurring charge issues in the annual review as opposed to what you might get into in a general rate adjustment case?
A Yes, sir.

Q Does that really present a problem? I mean, have you found that non-recurring charges are really a major issue in most rate proceedings?

A Well, they haven't been in this rate proceeding and earlier rate proceedings that I've been involved in, they were major issues. We would spend a day on a non-recurring charge.

Q Isn't it--doesn't the utility have the option, though, at any point in time of filing as separate application on a non-recurring charge outside of a rate proceeding?

A You are limited to one of those I believe. I can't remember how many you are limited to, one or two in between rate cases according to the Commission's Regulations.

Q How would that impact, then, this proceeding? Let's assume we have got the general--we've got the plan in operation.

A Okay.

Q Then, are you saying at that point that non-recurring charges would not be brought up in any of these alterative--

A Wouldn't be anticipated, no. This is a mechanism that is sort of like--this may not be a perfect analogy, but like the GSCs non-recurring charges don't come up in that. It is a mechanism that operates with respect to the formula that is set forth in the rate. Other issues that you are trying to accomplish wouldn't be envisioned, the mechanism is what would be the focus of the review, not these other issues. These other issues would be dealt with at a later time perhaps in the three year review.

CHAIRMAN HELTON:

Mr. Seelye, if you modeled this after existing tariffs in Kentucky, and you have mentioned environmental surcharge and GCR adjustment, those things are done on a--we have a six month review on FAC and environmental surcharge, then we have annual reviews and then we have two year reviews.

A Uh-huh.

CHAIRMAN HELTON:

Particularly because in the first year it is going to be based on the proposed budget that is passed by the Board of Directors. Was there any consideration given to a review in the first six months, the next--for the first period that this would be in effect?

A No, we did not consider that. I mentioned a lot of tariffs, a comment about those two that you mentioned, those reviews are defined by statute. Okay. That is a little different than what we are dealing with here. Probably a better analogy is the GSCs or GCRs of various utilities. In fact, this--our proposal was modeled very closely after the GSCs and those are mechanisms that came out of orders, rate cases, orders--rate cases, as a matter of fact, the GCR and GSCs did. Therefore, they are much more similar to what we are dealing with here.

Q During the annual reviews I take it that the Commission will have the opportunity to review costs; is that correct?

A Yes.

Q Should any adjustments to disallow the cost need to be be made, should they be made in the calculation of the AAC or the AAF?

A They could be done in either or both.

Q Would the adjustment be more favorable to ratepayers if it is made in the AAC and the company does not collect the associated revenues and then refund them through the AAF?

A I don't think that would be a major consideration because the AAF provides a true-up mechanism to bring the rate of return within the range. There may be a small timing difference but the nice thing about the AAF calculation, it does provide a true-up that brings the utility's rate of return within the range authorized by the Commission.

Q Then most of these adjustments would normally be made as part of the AAC component?

A They could be, yes. As far as specific--for example, if a type of cost that is--has been eliminated in a rate case, this rate case, for example, that would be take care of in the AAC calculation to elaborate on that a little bit. That would be the first component, therefore, those types of costs would be eliminated.

Q So, you are saying that all expenses that the Commission has disallowed in the most recent rate case or in the most recent three year review would automatically be removed from the calculations?

A Yes.

Q How do you proceed to do that? I assume the utility is still going to be budgeting, then, even if they are not retaining--recovering them for rate making purposes?

A Yes, we will have to identify them and not include those in the budget. We are going to have to make a specific identification of those costs and remove those from the methodology that is used to come up with cost.

Q Would that, then, require something similar to the work sheets that are in the Alagasco tariff where certain expenses are--

A We envision just like--just like in the application of the GSCs in Kentucky. We provide cost support or detail enough where you can see what is going on. We would envision that same type of filing here, and enough detail--and, again, that could evolve to some extent, but we would envision enough detail where you will be able to see the approach that is used.

Q To the extent that a new expense arises, is that one that is going to be subject to consideration during the annual review?

A Yes, that would be. Let's draw another analogy in explaining that to the GSCs that are filed. Whenever there are costs that come up with respect to gas supply costs, frequently, I can remember administering that at LG&E for a number of years and every two or three filings there would be a new gas supply costs that would have to be identified and explained. And I would envision enough explanation on specific cost items would be identified.

Q How do you find those items? I mean, it sounds almost as if the budget that is submitted is going to have to be in extreme detail in order for the Commission and staff and any intervening party to go ahead and go through it.

A The--what we are talking about here is not normal expenses in the course of operating your business. What we would be talking about is new or extraordinary items that would have to be identified. For example, if there--I can't give you a good example on--because I don't know what the future holds, as far as for this particular mechanism, but let's say that there is a major or an expense that is incurred to do something different than they have done before in terms of operating their business. Then that would be--should be explained and the Commission should be alerted to it, to that fact just like you are in the application of GSCs.

Q Will the--in administering the plan, will the Commission, I guess by implication, and staff have to become more familiar, perhaps intimately familiar with the operations of Delta in order to properly administer it?

A I believe plans like this do result in the staff becoming more familiar with the utility's operations. Okay. To give you an example, I keep coming back to the GSC, but I think that is a good--

Q Well, if I can--and I don't mean to interrupt, but can you give us a example based upon your conversations with Mr. Reed from Alabama?

A Okay. Yes, I can. They do regular reviews of the filing, they have regular telephone calls. When the discussion yesterday, you said maybe you--somebody at the staff has spoken with them, you--the assumption was that there was a monthly review. Okay. My discussions with Mr. Reed is that they have--they do monitor it regularly on a monthly basis, they monitor their cost. They call and ask questions about what is in these costs on a regular basis. Okay. They also--they go visit the utility and perform audits in a manner that is similar to the audits of, for example, electric utility's fuel adjustment clause, the Commission performed regular audits of the Fuel Adjustment Clause and in that process the staff becomes much more aware and attuned to what is going on with the utility's operations. I don't think that is a bad thing either. I think that the--if the staff understands more they are in a better--a more informed position to understand what is going on with the utility's operations.

Q To the extent that you have got--you have viewed this as a collaborative process. I assume that, not only will the staff, but also the Attorney General or whoever is representing the consumer interest would also have to come up to that same degree of familiarity?

A That's up to them, really. And to give you a example, the GSC, there is never--I was never--they would have the opportunity to do that, I'm sure, they could have monitored LG&E's cost but they didn't do that, and this is not a criticism of the AG's office. They have the same sort of constraints that any administrative agency would have or whatever the correct characterization--however you correctly characterize your department. But that is entire--I think that is entirely up to the AG's office.

Q Well, let me--you are familiar with the two avenues that are currently available for utilities to file for rate adjustments, not--a utility can file an adjustment based on a historical test year or file one based on a future test year?

A Yes, sir.

Q And would you agree that the filing in the future test year is significantly more burdensome and more complex to deal with?

A Yes.

Q And is that in part because you are dealing with future events and so the basis for the estimations are--come under greater scrutiny?

A Yes.

Q Okay. To the extent that Delta would be using a budgeted test period, or budgeted year, would you have the same problems there as you would have for a forecast test year?

A You wouldn't necessarily have to have the same--it depends on how comfortable everybody gets with it. But it could--forecasts are definitely more--they don't have the level of accuracy that you have with respect to actual cost. There is no question about that because there is--you are trying to predict the future and you don't know exactly what that will--what will happen there, but the mechanism we propose does have an AAF component that will bring you back after the first year to the--to actual cost. Therefore, it is a one year exposure here, unlike a rate case, which is not limited to one year, that you are not in a--with respect to a forecasted test year you don't true-up actual results after it is implemented. Therefore, there is a major difference between what we are proposing here and the forecasted test year, which is permanent, because you do true it up in this mechanism.

Q Well, it is permanent only to the extent that the next rate case is filed, is that correct?

A Well, it could be permanent if they keep filing forecasted test years, it could be permanent forever. You could always look at a forecasted test year. Therefore, I see that there would be more of a reason for much more scrutiny in a forecasted test year than what we are talking about here.

Q In response to the Commission's order of June 4 in the 99-046 case, you state that the proposed mechanism is designed to improve operational and financial performance. What is the financial harm that you refer to that could result from earnings variability?

A Okay. The--I can give you a very real example. If earnings variability--if you have a number of years of abnormally mild weather, for example, the earnings of the utility can be impacted by that. It can--the results that we have see in Delta's case is a reduction in the equity component not being able to earn its dividends four out of the five past years plus, like I said, a negative retained earnings which drives down the equity percentage in its capital structure. Therefore, variability has a direct impact on the utility's financial performance in that situation. And driving down--the poor performance also has the--makes it much more difficult for the utility to raise equity capital to bring its capital structure back in line, because the investment community doesn't--you can't find anybody to, basically, take your shares, therefore, it makes it much more difficult for the utility to maintain its financial integrity in situations such as that.

Q Is there any other provision in the proposed plan other than the purported reduced regulatory cost that would result in savings that could be captured and shared with customers as would normally be done in a performance base rate plan?

A Well, I assume by your questions that you are referring to the filing prior to the inclusion of the performance based measure. Okay. With the inclusions of additional performance based measures there is a big benefit if the company can take measures to improve its performance with respect to operation and maintenance expenses, the customers realize a benefit from that.

Q Delta has proposed, in part, that it be given the option to discontinue the adjustments if it would result in a non-competitive price. Can you tell us how that would work?

A That would--I would see that working or that would work as a part of the annual filing. And this is not some hypothetical situation either, because the situation could arise with respect to competition in the electric business where Delta does not feel that it can increase its prices and remain competitive with electric heating. And in Kentucky, as we are aware, there is very low electric rates, therefore, Delta faces competitive pressures that a lot of gas companies in the rest of the company doesn't face. And what you would--what Delta would do is to not increase the AAC component or perhaps even the AAF component of its rates and, therefore, it would establish a lower AAF, AAC component. The way I would see that working is it would establish a lower AAC component or an AAF cost component and I don't see it working or affecting the balance

adjustment, is what I'm driving at there.
Q Well, I guess I'm looking at it from the pointy-headed bureaucrat outlook which is, first of all, as I understand it, we are going to have the annual review, and after the annual review has been completed, then Delta will elect or make some determination as to whether its rates are going to be non-competitive?
A No, I would see it not after the annual review, but as a part of a filing itself.
Q And how or what guidelines are going to be used to determine whether a rate is uncompetitive?
A Okay. The guidelines will--I don't think that there is going to necessarily be rigid guidelines. This is a voluntary reduction that the company sees that it needs in order to remain competitive. They will--if they find themselves in a position of not being able to be competitive, then they will voluntarily reduce the AAC amount or--and/or the AAF amount in order to keep the costs down, to keep the rates from going up.

Q In your response to, I think it is Item 23, you talk about the--conducting a competitive assessment.

A Uh-huh.

Q What exactly is that?

A A competitive assessment is an analysis that looks at what prices are necessary to remain competitive. It is more complex, unfortunately, than just looking at a single price point. The--you have to look at cost regionally and before Delta would take the step of not increasing its rates, it would be my suggestion that they take a hard look at the marketing impacts that the rate reduction would have in order to try to evaluate the effect of the rate suppression, if you will, as far as how will it truly make you more competitive with electric energy, which is probably the one that we would be talking about here. It could be propane as well.

Q Okay. When you are making your assessment are you going to be looking at what has already occurred? And by that I mean are you going to be looking at the fact that Delta may have lost customers during the preceding period and determine that it cannot raise them or are you looking at what the impacts would be from making the adjustments that have been required under the formula?

A I think you would look at both, probably, the former one as far as--your losing customers will precipitate the need to look at--take a hard look at the impact that your rate is having on your marketing efforts.

Q Okay. Let's assume for the moment you have such a situation, is this election not to have the formula carried out, is that going to be a temporary suspension of the plan or is it at that point is it--once Delta elects to do that, is it opting out of a plan totally?

A Oh, no. It is modifying the amount that it would include in the AAC amount that they are filing. In other words, they make these annual filings, they would, as a result of their competitive assessment, they would reduce--the plan could still go on, they would just reduce the amount of--the AAC amount that is used in the calculation and that would be tracked on through for the next couple of years while that is tracked through.

Q And I take it that there would be no type of balancing account in effect to allow Delta to recover that at a later point?

A No, that would be--the way I see that would work is the AAC--let me--if it is done through the AAF, what you just described is true. If it is done through the AAC, which is the first component, there could still be a later true-up mechanism to take care of it. So, it depends on the two paths that the utility could take. For example, it may be necessary, they may feel it is necessary to take it out of the AAC--AAF amount which is the second component, that would be lost. That would--there would be no post recovery of that. If it is in the AAC there could be post recovery, so it depends on which path that the utility takes in that regard.

Q Let me take that point one step further and I'll try to close up. If I understand you right, with

the opt out provision, essentially, what the utility is saying it's going to forego its earning within the authorized range provided by the plan because of competitive pressures; is that correct?
A Okay. Let's make sure that we are correct in the terminology that we use, okay, because there is two different opt out types of things that we are talking about. Okay, the first one was--
Q Okay. When I say opt out, I'm talking about the temporary foregoing of additional rates produced by the annual adjustment.
A Okay. I wouldn't use the word opt out for that. Okay? It is a voluntary reduction in the level of the charge, okay. Now, what is the question again, please, I lost the question.
Q If Delta were to decide because of competitive pressures that it is going to forego the annual or the increase in rates--
A Yes.
Q --required by the annual adjustment, doesn't it, in effect, begin to earn less--its management has made the decision to earn less

than the authorized rate of return?
A Yes, sir.
Q Okay. Will that not put you, in some respects, in the same position that you are now?
A Unfortunately, it may very well, but that is competitive pressures.
Q Well, doesn't that then come back to the whole--that the problem may not so much be the regulatory procedures as it is the market itself?
A In that situation, that is correct, but that's, unfortunately, a reality of the natural gas business.
Q Well, let me follow up on that because I think that was one of the benefits you had said would come from this plan, that it will make Delta more competitive. But if it is already facing competition and as a result of competition it would have to suspend the plan, doesn't competition already serve to make it more competitive? Or let me put it another way, if it looks at its budgeted costs and sees that it has got to cut them

down, it is going to cut them down every way it can but still remain in compliance with its lawful requirements?

A Yes, and I believe that is true. I think it is also true that this sort of mechanism, probably, for that very reason and because of the competitive pressures that nature gas businesses face, very appropriate for natural gas businesses. Natural gas, probably, faces more competitive pressures than the electric business, for example. Because natural gas--there are substitutes for basic--almost everything that natural gas is used for. Unlike electric energy there is no viable substitute for lights, for example. I mean, I guess you could have gas burning lights, but you don't see those. Okay. There is not viable alternatives for this machine that is setting here. Therefore, natural gas, there are viable alternatives for that. Okay, therefore, there are going to be pressures in the natural gas business that will act as a--as a moderation, if you will, that is a performance based measure that is very real, that exists for natural gas businesses.

Q So, in the case we just talked about, because of those competitive pressures, the only option the company would have would be to cut its cost or find some new way to market its product?

A Exactly.

Q On the Alagasco plan, I had a 5% cap on annual revenue--had a 4% cap on annual revenue increases. Delta has chosen a 5% increase as the cap. How did you all arrive at the 5% figure?

A That was somewhat of a subjective determination. It was based upon what we see out of CAPN contracts. We see 5% more--I have signed certain contracts over the year that have 5% caps, it is just something I see more so and it sounds more reasonable than a 4% cap.

Q Do you know how Alabama Gas Corporation determined or how the Alabama Commission came up with a 4% cap?

A No, it was in place--this mechanism has been in place a long time. I don't know how they came up with that cap.

Q So, you don't know if that method was any less subjective or more objective than the method you all use?

A I suspect both of them had the same level of subjectivity to it.

Q Just one more question and that relates to, again, the issue of adversarial proceedings. You had mentioned before that these annual proceedings would be less adversarial and you cited as an example, I think, the Environmental Recovery Clause proceedings and the Fuel Adjustment Clause proceedings. Should I take it from your remarks that you think the Commission's Fuel Adjustment Clause proceedings have been pretty peaceful in the last few years?

A Well, I haven't been here in the last few years on the fuel adjustment hearings. When I have--I was involved with fuel adjustment cause hearings for a great number of years and they were not nearly as adversarial as the case we are in right now, and they were not adversarial at all. I can't speak to what has happened since.

MR. WUETCHER:

Okay. That's all we have, thank you.

CHAIRMAN HELTON:

We'll take a break.

(OFF THE RECORD)

CHAIRMAN HELTON:

Mr. Watt, any redirect?

MR. WATT:

Just very briefly, Your Honor, thank you.

REDIRECT EXAMINATION

BY MR. WATT:

Q Steve, when Ms. Blackford was questioning you yesterday with her cross of Exhibit 8, which contains Delta's response to Data Request Number 6, or some request, I can't remember which, there was a discussion about how Delta's Alternative Regulation Plan determines the AAC by the use of budgeted costs. Do you recall that testimony?

A Yes, sir.

Q On pages 49 and 50 of your rebuttal testimony and in Exhibit 5 to your rebuttal testimony, it appears that you have proposed an alternative method of calculating the AAC; is that correct?

A Yes.

Q Would you please explain that to the Commission?

A Okay. The purpose of the inclusion of that tariff sheet was just simply to address the concerns that were raised by the Attorney General and concerns that I perceived were raised in data requests. The--it did not represent what we are recommending or filing in this case. It represents an alternative that--alternatives that could--that are acceptable and, in one case, probably appropriate. In the case of the modification--one of the modifications was to base the AAC calculation on actual cost as opposed to budgeted cost. There was a concern expressed by the AG's witness, Mr. Henkes, about perhaps gaming the system. I don't believe that possibility exists nearly as strongly as Mr. Henkes claims. But if there is any concern on the part of the Commission, the alternative is to base--

instead of using actual, excuse me, instead of using budgeted operation and maintenance expenses that go in to calculate the return on equity, budgeted return on equity, you could use actual historical cost, actual historical earnings in order to calculate that. The other modification concerned the use of the hypothetical capital structure. This was precipitated by a question, a series of questions, actually, in the Commission's Data Request where the question was raised about the appropriateness of using a hypothetical capital structure and the mechanism that, if the Commission allowed the hypothetical capital structure, that the mechanism as written would, basically, undo that. And we responded to that in data requests, if the Commission does indeed accept the hypothetical capital structure, as we believe that they should, or you should, then this mechanism would go in hand with that as suggested by the Commission staff's data request.

Q Thank you. Just a moment ago you were discussing

the provision in the Alternative Regulation Plan by which Delta, because of competition, would have the right, in essence, not to increase its rates as much as the Alt Reg Plan might determine they should be. Is it true that Delta simply wants the flexibility to reduce those rates and not necessarily the requirement, that this is just a management option to react to the competition?
A Yes, that is correct. This would just be a management option.
Q Delta's Alternative Regulation Plan does not require a three year review, does it?
A No.
Q The review that the Commission may want to make of the status of Delta's operations and finances could be upon any term the Commission decides; isn't that the case?
A Yes, we have stated that in the data request that we were talking about earlier, yes.
Q There was some discussion earlier today about what might happen at the expiration of the three year experimental period or at the end of whatever the review period might be, and there was some discussions that perhaps a

rate cause would occur. Is a rate case necessary?

A Not necessarily, no.

Q Steve, isn't it true that if the Alternative Regulation Plan proposed by Delta is filed, that most of the underlying data that is required to be filed in a rate case will already have been filed pursuant to the Alt Reg Plan and will have already been reviewed by the PSC?

A Yes, the filing requirements that are set forth in the tariff sheets are quite extensive and there will be quite a lot of cost information, so the answer to the question is yes.

MR. WATT:

That's all I have, Your Honor.

RECROSS EXAMINATION

BY MS. BLACKFORD:

Q I want to take up a little bit on the discussion concerning the election, perhaps, on the competition element not to increase rates. You pointed out that it could be done either under the

AAC or the AAF and rightfully pointed out that if it is done under the AAC and then subsequently be recaptured through the AAF. I want to know whether this election can be made with reference to the AAC as it applies to a given class or whether once the election is made it must apply across the board?

A The way that the mechanism works it would apply across the board. However, if I could add a little bit more.

Q Sure.

A And I can't envision this situation arising, I think that Delta would--should not be precluded from making a specific consideration if the situation warrants it, but that is certainly not contemplated, was not contemplated in what we have described. You raise a question that is an interesting question.

Q Next question, would it be possible through the interim ability to redesign rates, an interim ability that I gather from the discussion with Mr. Wuetcher, the utility will continue to exercise, whether you could not then adapt, as it were, the amount of class recovery that is happening from each class and, thereby, essentially, affect the rates that each class is paying and particularly in connection with a reduction in--for competition purposes, then insure that one class gets the better benefit of it over another?

A That could happen, that is not what we contemplate, though, or would contemplate.

Q I want to take up very briefly our friend, Mr. Bonbright, again, as you mentioned yesterday when we were talking about customer costs in connection with the fully embedded cost of service study. There was, in fact, a discussion of a minimum system but none of zero intercept, correct?

A In the--what I--to state what I said, I've looked in the index and did not find zero intercept in the index.

Q Well, let me bring you the updated version of the holy writ. What I have here is the 1991 version, 1992 version, Principles of Utility Rate Making which is Bonbright, Danielsen and Kamerschen, let me pass this by you for the spelling. I'm going to again refer you to the fully distributed cost chapter which in this version is Chapter 19, beginning on page 478, the customer cost provision section begins on page 490. I'm referring you to page 491 and if you would please read for me this paragraph that begins with "The FERC" and go through the first sentence of the next paragraph.

A "The FERC Handbook recognizes that while there are no hard-and-fast rules for allocating customer costs, as they depend on the type of costs involved, the issue is not usually litigated as the dollars involved are usually not substantial. The really controversial aspect of customer-cost imputation arises because of the cost analyst's frequent practice of including, not just those costs that can be definitely earmarked as incurred for the benefit of specific customers, but also a substantial fraction of the annual maintenance and capital costs of the secondary (low voltage) distribution system--a fraction equal to the estimated annual costs of a hypothetical system of minimum capacity. This minimum capacity is sometimes determined by the smallest sizes of conductors deemed adequate to maintain voltage while keeping them from falling of their own weight. In any case, the annual costs of this phantom, minimum-sized distribution system are treated as customer costs and are deducted from the annual costs of the existing system, only the balance being included among those demand-related costs to be mentioned in the follow section. Their inclusion among the customer cost is defended on the ground that, since they vary directly with the area of the distribution system (or else with the lengths of the distribution lines, depending on the type of distribution system), they therefore vary directly with the number of customers. Alternatively, they are calculated by the `zero-intercept' method whereby regression equations are run relating to various sizes of equipment and eventually solving for the cost of the zero-sized system."

Q Thank you. Did you read that last sentence, "What this last named cost computation overlooks, of course, is the very weak correlation between the area (or the mileage) of a distribution system and the number of customers served by the system."
A I can't recall.
Q All right. Well, having read it into the record myself, now. So, the zero intercept method is now addressed by Bonbright in customer costs. I just wanted to point that out to you. Thank you, I have no more questions.

CHAIRMAN HELTON:

Mr. Wuetcher?

MR. WUETCHER:

Just a couple.

RECROSS EXAMINATION

BY MR. WUETCHER:

Q Just out of curiosity, how long has Dr. Bonbright been dead?
A I'm not sure exactly. I'm not sure.

VICE CHAIRMAN HOLMES:

Do you have a book, too?

A If you notice, just to elaborate on that a little bit, there are other authors on the title of the book.

Q I understand, it is just that we have been talking about him so much I thought he may have made a miraculous appearance.

A Now, this holy writ could be considered apocryphal now.

CHAIRMAN HELTON:

He was a child prodigy and started writing when he was seven, Jerry.

A Because we have other authors involved in it, it is not the original thing.

Q I just want to follow up on two points. Mr. Watt in his direct examination stated--or asked you whether the materials that would be supplied under the alternative rate making mechanism plan as set forth in the tariff would be the ones that you would normally be filing anyway as part of a rate case.

A Yes, many of the documents would be.

Q Okay. I just want to make sure that--for

purposes of comparison, I'll leave it at that. The materials that would be supplied would be found at sheet 35 of the proposed tariff, is that correct?
A Yes, sir.
Q Okay. And would it be correct to say that the requirements that the utility would have to file or set forth on pages--for a general rate adjustment, are both set forth on pages five and six of the utility's application for general rate adjustment?
A Yes, sir.
Q Okay. And would you agree with me that both filing requirements look at little bit larger than the ones that are set forth on page 35 of the tariff?
A Yes, I would agree with that.
Q Okay. One other thing, the Alabama Commission had required monthly reports, the current provision as proposed by Delta would not have monthly reports; is that correct?
A No, not as filed, no.
Q But Delta has no objection to filing monthly reports or monthly statements?

A It's my understanding that--and I know this to be true because I came over and reviewed all of the gas utilities in the state. They file monthly operating reports with the Commission already. And I would guess that in Alagasco's case the reporting requirements probably did not exist, or what they filed with the Commission probably didn't exist like it does in Kentucky.

Q And just for purposes of clarifying the record, how many customers does Alagasco currently have?

A I can't remember, but there are quite a lot.

Q Could you give us a ball park figure, we are not going to hold you to it, except to the extent for purposes of comparison to Delta's customer base?

A I would say 15 times the number of Delta's customers would be my guess.

MR. WUETCHER:

Okay, thank you.

CHAIRMAN HELTON:

Mr. Gillis?

COMMISSIONER GILLIS:

No questions.

CHAIRMAN HELTON:

Mr. Holmes?

VICE CHAIRMAN HOLMES:

No questions.

CHAIRMAN HELTON:

You may be excused. Mr. Watt?

MR. WATT:

Randall Walker.

(WITNESS DULY SWORN)

The witness, RANDALL J. WALKER, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WATT:

Q Randall, would you please state your name for the record?

A Randall J. Walker.

Q Where do you live?

A I live at 1218 Park Avenue, Shepherdsville, Kentucky.

Q By whom are you employed?

A The Prime Group, their address is 6711 Fallen

Leaf, Louisville, Kentucky 40241.

Q What is the purpose of your testimony in this proceeding?

A My testimony in this proceeding has, basically, three purposes. One purpose is to--I support the pro forma adjustments that were made to the rate case with respect to the revenues, such as the elimination of the GCR revenues, temperature normalization, year end adjustment. Another responsibility I have in this rate case was the apportionment of the revenue increase to the rate classes and, in that regard, we were trying to achieve some movement towards a better balance in the class rates of return because there was quite a difference between the classes, and at the same time recognizing that customer acceptance and the need to maintain rate stability by avoiding overly disruptive changes in the rates and marketplace realities had to be recognized as we do that, as well as the pricing and the rate design itself.

Q Have you filed direct testimony in this case?

A Yes, I have.

Q Are there any changes, corrections or additions to that testimony?

A Yes, I have one correction. On page eight of my direct testimony, line four, this relates to the year end adjustment, the number--the "304,119" needs to be changed to"$423,668," and on line 11 of that same page the "$54,487" which are the corresponding adjustment to expenses for the year end need to be increased to "75,906." We acknowledge this was incorrect in our response to the Attorney General's August 11 Data Request, Item Number 73, and with that I also filed a revised exhibit, Walker 5.

Q Subject to that correction, if I asked you the questions contained in your direct testimony today, would you give the same answers?

A Yes, I would.

Q You have not filed any rebuttal testimony in this case?

A No, I have not.

MR. WATT:

We have no further questions Your Honor. We would move the admission of Mr. Walker's testimony.

CHAIRMAN HELTON:

So ordered. Ms. Blackford?

CROSS EXAMINATION

BY MS. BLACKFORD:

Q Mr. Walker, let me refer you to page ten of your testimony.

A Two?

Q Page ten.

A Ten, yes.

Q There, on the basis of Mr. Seelye's cost of service study, you concluded that there is a need to increase the rates to residential customers more than there is a need to increase the rates of other customer classes; is that correct?

A Yes. That was pretty clear from that cost of service study. The overall rate of return in that--based on the actual rates adjusted for the temperature and year end adjustments and so forth, was 7.31%. The rates of return of all of the other classes, other than residential, exceeded even the proposed rate of return after we included the rate increase, residential was less than 4% and we had some rate classes that were above 27%.

Q You concluded all of this on the basis of that same cost of service study that the very high earned rates of return for interruptible customers, that because of those very high earned rates for interruptible customers, revenues should be reduced for the interruptible class; is that correct?

A We--yes, we did. The interruptible class was the class that had the return that exceeded 27% and if you turn to, I believe it is page 14 of Mr. Seelye's testimony, it basically lays out in the first column what the actual rates of return were by the rate classes and what they are at the proposed rates, and this change modestly reduced the rate of return on the interruptible class from 27.37% to 25.52.

Q And then you would agree with the statement that it is a reasonable use of a fully allocated average embedded class cost of service study to help determine, in part, how any increase in revenues should be spread?

A Well, you use it as a guide, certainly.

Q Would it also be reasonable for a regulatory authority with jurisdiction over rates to determine that another type of--
A Excuse me--
Q --or another cost of service study--
CHAIRMAN HELTON:
Ms. Blackford, I don't think he can hear you.
A Excuse me, I can't hear you. Can you--
Q Oh, I'm sorry. I'm so used to being the one that can't hear I can't imagine that I can't be heard.
A Well, that's two of us. Maybe we can shout at each other.
Q Would it also be reasonable for a regulatory authority with jurisdiction over rates to determine that another cost of service study which allocates rates would be--I'm sorry. Would it be reasonable for a regulatory authority to utilize another cost of service study other than the one that you have proposed to allocate rates?
A Well, I think the regulatory commission would first have to determine whether that other

cost of service study were, in fact, more appropriate.

Q And if it did so determine, it would then be appropriate to allocate rates on that basis?

A Well, you, you know, you don't use the cost of service study, generally in most cases, to just go right down the line. The only place that I'm familiar with that ever happening is at the FERC, with respect to pipeline supply rates, where it is--they basically build the rates up from the cost of service study rather than use the cost of service study as a guide. They are just simply a guide to look at what portion of the overall revenue requirements and what portion of the earnings each class contributes to the total, and relative to one another, and you use those as a guide and then moderate your proposed changes in rates to try to take into account the other things that I mentioned, such as price stability and customer acceptance and things of that nature.

MS. BLACKFORD:

Thank you. That's all my questions.

CHAIRMAN HELTON:

Mr. Wuetcher?

MR. WUETCHER:

Just a few.

CROSS EXAMINATION

BY MR. WUETCHER:

Q At page 13, line six of your testimony, you state that all residential volumes fall within the first 200 MCF block. If all residential customers fall within this block, why isn't a flat rate more appropriate for residential class than the present declining block rate?

A Well, in fact, the current rate for residential is a flat rate. It is a customer charge and whatever is in the first block because all their usage falls in the first block and they don't have any usage in the second, third and fourth blocks, so, effectively, it is a flat rate.

Q Why is it appropriate to adjust for weather normalization the bill for every customer within a class, regardless of a customer's usage?

A I'm sorry, I--
Q Let me try that again. Why is it appropriate to adjust for weather normalization every customer's bill within a class regardless of the customer's usage?
A Are you referring to a weather normalization clause?
Q Yes.
A Is that what you--you are not talking about the weather normalization that I did for the rate case, you are talking about the weather normalization clause that the company filed; is that what you are--
Q Yes, sir.
A Oh, okay. Well, basically, the weather normalization, what you are trying to do is look at the departure that you have in a given month for abnormal degree days, whether they be more than normal or whether they are less than normal and try to--and then to try to bring that billing of your base rates back to what the level would have been if you would have had normal temperatures. Some months you will take it down, some months you

will take it up. And that is one way to spread it is over usage, I mean, you know, I don't--as far as I know, most of them are spread over usage. They are applied to usage rather than to revenue or something like that.

Q That leads me to my next question, what other gas utilities use this method?

A In Kentucky?

Q Yes, sir.

A The only other--well, I'm not sure if there are any in Kentucky, maybe Columbia has one or had one, but I wasn't sure in Kentucky that anyone had a weather normalization clause.

Q Okay. Let's then expand our geographical range, what other utilities are you familiar with that also have--

A Well, I know Columbia has weather normalization clause in a number of their other jurisdictions, other states, because when I was at LG&E I had contact with the Columbia people and I'm--that's the reason I wasn't sure whether they had it in Kentucky because there was some--were contemplating doing so, and this was a good while ago. But they have--I believe they had it in, if I'm not mistaken, in Virginia and some of the other states that they service. And, you know, Alabama is a good one, we have one there, I think, weather normalization clause. They may even have one in Georgia, if I'm not mistaken, but this is kind of hazy who has one.

Q Okay. Why is it appropriate to use the norm--30-year normal degree data for Lexington, Kentucky, to determine the normal degree days for Delta's proposed weather normalization factor?

A Oh, I think you could use--you could probably use any normal if you wanted to at any place sort in the geographical region, because what you are--you've got to remember what you are doing with weather normalization clause. You just really adjusting for the percentage departure from normal and whether it is Lexington, Kentucky, or London, Kentucky or Frankfort, or whatever, the departures, the percentage departure, and that's really what you are getting down to, from normal, because you are just basically taking the actual degree days relative to the normal at that particular location. I wouldn't think the percentage departure should be much different from one location to the other. Now, the actual normals may be different but so will the actual numbers. But the percentage change is not going to be that much so, therefore, you adjustment should be a great deal different regardless of the temperature station you use. As long as you stayed within the reasonable geographical range.

MR. WUETCHER:

Thank you. That's all I have.

CHAIRMAN HELTON:

Redirect?

MR. WATT:

I have no further questions.

CHAIRMAN HELTON:

Thank you Mr. Walker. I think that concludes your witnesses Mr. Watt?

MR. WATT:

That's all for us Your Honor.

CHAIRMAN HELTON:

Ms. Blackford?

MS. BLACKFORD:

Robert Henkes please?

(WITNESS DULY SWORN)

The witness, ROBERT J. HENKES, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BLACKFORD:

Q Mr. Henkes, would you state your name and business address for the record please?

A Robert J. Henkes, 7 Sunset Road, Old Greenwich, Connecticut 06870.

Q Are you the same Robert Henkes who filed testimony in Case Number 99-046 on July 30 of this year?

A Yes, I am.

Q Are there any corrections or additions that you wish to make to that testimony?

A Not at this time.

Q Are you the same Robert J. Henkes who filed testimony in connection with Case Number 99-176 on the 23 of September of this year?

A Yes.

Q Are there any--are you also the same Robert Henkes who then almost immediately filed an errata sheet consisting of some, I think, nine corrections?

A Yes.

Q Other than those corrections shown in the errata sheet, are there any corrections or additions you wish to make to this testimony?

A No, ma'am.

MS. BLACKFORD:

I move the testimony be admitted into the record and pass the witness for cross.

CHAIRMAN HELTON:

So ordered. Mr. Watt.

MR. WATT:

Thank you, Your Honor.

CROSS EXAMINATION

BY MR. WATT:

Q Good morning Mr. Henkes, how are you today?

A Good morning, I'm almost organized here.

Q Let me know when you are.

A I am.
Q You are?
A Yes.
Q Would you please refer to page ten of your testimony in the rate case?
A Right.
Q I apologize, I don't have the line number but you say on that page "generally a utility's return requirement is determined by applying the calculated overall rate of return to the rate base investment, not the capital structure amount," do you have that before you?
A Yes.
Q And that is what you say, isn't it?
A Right.
Q In response to Delta's data request to the Attorney General, Item 76, I believe you identified two cases in Kentucky where rate base rather than capital structure was utilized to calculate return requirements; is that right?
A Yes, those were the two most recent proceedings that I have been involved with, namely, Delta's last rate case and the

Kentucky-American Water case.

Q Kentucky-American Case 97-034; is that right?

A Yes.

Q Isn't it true that Kentucky-American Water Company is a wholly owned subsidiary of an out of state corporation?

A Yes.

Q You are not aware of any other instances in which the Kentucky PSC has utilized rate base rather than capital structure, are you?

A I didn't research it, so I'm not aware of that, no.

Q You--are you aware that the Kentucky PSC has utilized the capital structure to determine revenue requirements in Case Numbers 90-158, 10064, 8924, 8616, and 8284 all involving LG&E?

A Subject to check, and, you know, I would assume that those are all prior to the last two cases that I mentioned.

Q You are also aware, speaking of prior cases, that the Kentucky PSC used the capital structure in Delta rate cases prior to 97-066, aren't you?

A Yes, and I believe that policy has been changed starting with the last case, maybe the AG put on some testimony that threw some light on--some additional light on it where it got convinced the Commission that maybe that was the right way of going.

Q Actually, what I was going to was the term "generally" in your testimony. When you say "generally" a utility's return requirement is determined by applying the rate of return to rate base, you really were only referring to two cases, weren't you?

A No. I'm referring to every case that I've been involved in in my 22 years of regulatory experience. I am saying, generally, because I was aware that this Commission in the past, when I did three cases here, used the capital structure. But I don't know of any other jurisdictions where they use that method.

Q Would you please return to, excuse me, turn to Delta Data Request, Item 80, your response to it?

A I have that.

Q I believe in your response to that data request you agreed that if the level--that the level of Delta's employees will be affected by the assumption that Delta's customers would double; isn't that essentially what you say there?

A Yes, I mean, more generally I'm saying that in the long run every cost is variable, even fixed costs become variable. I mean, if you make an assumption that the system doubles, I would assume that, you know, it is very unrealistic to assume that it wouldn't have any impact on the number of employees.

Q Would you also agree that smaller increases in the number of customers will also affect the employee level?

A It certainly hasn't been proven in this case. We took Mr. Seelye through that--through the cross-examination yesterday where it showed that in the last ten years his company's employees didn't change while its system grew by 22%. And when you are looking at an adjustment where you stay within the test year, you are just adjusting for a year end event versus an average event in the test year. I don't think that you can assume that the level of employees are going to change, that there is a direct variability. There is a direct variability in terms of gas expenses, I would readily agree with that, but certainly not in terms of property insurance, or level of employees, or employee benefits, and things of that nature.

Q Well, if customers increase, isn't it true that Delta's employees, whether it is the same ones or more employees, are going to have more meters to read; isn't that a fair statement?

A Yes.

Q And isn't it true that there are going to be more bills rendered?

A Yes.

Q And its true that there is going to be more meters tested; isn't it?

A Yes, and you still have the same employees and it doesn't make any difference in your expense, you are still paying the same salary.

Q And it's true that there is going to be more service calls; isn't that right?

A There might be some incremental expenses, yes, and that is why we are giving effect to that, I have said there should be a 4% incremental expense rate. There is going to be probably some additional maintenance expenses, there might be some additional uncollectible expenses. So, yes, there are certain expenses that vary directly. I would agree with that, but certainly not to the extent of 18% of your revenues.

Q It's true that there is going to be other tasks besides the ones that I just mentioned that are going to have to be performed if the customer count increases; isn't that right?

A Yes, I'm not going to argue that.

Q Would you please turn to Delta's Data Request Number 79 to the Attorney General, your response to it?

A Yes, I have it here.

Q In that response you identify, in the middle paragraph of your response, a number of kinds of expenses that you say do not vary with incremental consumption resulting--do you see

that, do not vary with incremental consumption? And those expenses are labor, employee pension and benefit expense, regulatory commission expense, property insurance expenses, outside services and miscellaneous general expenses?
A Yes.
Q Did I read those correctly?
A Yes.
Q Isn't it true that you have not performed any studies which demonstrate that no incremental costs are incurred by the utility, irrespective of the number of customers added to the system for those specific items that you removed when you calculated your proposed 3.62% expense to revenue ratio?
A No, similar to what--I don't think the company did a study, I certainly didn't do a marginal cost study for this type of issue. I looked at historical experience, I looked at your level of employees, I looked at your system growth and I guess I just used logic and common sense, maybe that is the way to abbreviate it.

Q Would you turn to Item 78, your response to Item 78? Do you have that before you?

A Yes.

Q In that response you stated that you have not performed a review of whether the Kentucky Commission has recognized your expense to revenue ratio methodology as superior to Delta's methodology; correct?

A Right. I'm saying I haven't performed that review. I wasn't aware that there--apparently, the Commission in the past has used this as a method and they must have because that is what you used as the starting point. All I know is that I propose a revenue annualization adjustment in the last case and the Commission adopted that. In fact, the company used that same method in this case. I have taken this, maybe Commission initiated expense to revenue method and with all due respect improved it, in my opinion. I mean, I would think that if the Commission believes that labor expenses must be removed and I think, logically speaking, it dictates that you remove employee benefits and other employee related expenses. And I don't think that insurance, property insurance, is going to change or regulatory commission expenses, things of that nature.

Q Would you please turn to your rate case testimony, pages 30 and 31, your testimony?

A Yeah, I know, I have it in various places.

Q Oh, I see, I apologize.

A Yes, I have it.

Q Okay. Just paraphrasing what you have done there, you have recommended that Delta's bad debt expense should be $250,666.

A Are we talking about bad debt, not rate case expenses?

Q Bad debt, yes.

A Oh, okay. Yes, I have recommended that.

Q Instead of the actual test year bad debt expense of 345,870?

A Right.

Q I believe you recommended using a four year average bad debt expense; isn't that right?

A Well, I think you ought to look at my Schedule RJH-14. It will give you a little perspective of what I did. I just want to wait until you are there, are you there?

Q I'm where I want to be, you go ahead and answer my question.
A I did look at the last six years, 1993 through 1998, because that is all the data that were available to me, and I did an analysis and I said, okay, it has been going up from .36% of revenues to .99%. Now, you can say, as Mr. Seelye said the other day, yesterday, well, there is an increasing trend and, therefore, you know, it should increase after the test year. But I don't think that is the way you ought to look at it. This is an alarming trend and if you don't set a more reasonable rate the company will not have an incentive to try to do something, or to try to continue to do what they are doing, apparently, doing right now. There is a dire response available that says that the company is being--is enforcing its rules much more stricter and more aggressively, bad debt expenses have decreased. So, based on that, I did indeed assume as a normalized rate the average of the last four years and I've been conservative in that. As you can see, I

threw out the first two years, those two low numbers, the .36 and the .33. They were part of the analysis, but I just out of conservatism have thrown them out, and this is how I got to the still very high level, I think, of .67%.
Q So, it was a four year average?
A To make a long story short, I realize it is too late for that but, yes, it was a four year average.
Q Would you refer to your response to Delta's Data Request Number 81?
A Yes, I am there.
Q Is my understanding correct that your response to that data request item indicates that you performed no studies of bad debt expenses of companies similar to Delta?
A Did I say that?
Q That's what I thought you said, that's why I'm asking you the question, just to make sure you did.
A I say in any case that I'm involved I perform a study. Now, I do--you see, there are not many rate cases any more these days so the

last four that I did, five, are all--involve water cases. But I can rattle them off for you, they are the Artesian Water Case, and I have all the docket numbers if you need them that I just recently did and they had an uncollectible rate of .30%.
Q Is Artesian the one that you took the pages out of and submitted in response to the--
A Yes, yes.
Q --Commission's data request?
A Yes, that's right.
Q Okay, go ahead.
A As the Mt. Holly Water Case in New Jersey that had a ratio of .15%, then there a large company, New Jersey-American Water Company, $220,000,000 worth of revenues, they had a ratio of .42%, Middlesex Water Company in New Jersey is .17%, and United Water Delaware had a ratio of .14%. So, there are a lot more studies that I've done, but these are the most recent five cases I've done in this last year.
Q Rather than a study, though, what you are saying here today is that you have

participated in four cases recently and these are the numbers for those cases; correct?

A No, we actually studied them. I mean, it is not like the companies--the numbers were there and we just rubber stamped them and said that is fine. We looked at them, we studied them, we normalized them, and these are the rates that were adopted by the Commission.

Q I'm sorry, I didn't make myself clear in my question. Rather than undertake a study of bad debt expense for gas companies in a particular geographic region or of a particular size, your study of bad debt expense amounts to telling us about four water cases that you recently participated in; is that right?

A Yes, that's right.

Q Okay. Is that your basis for using the four year average bad debt expense in your adjustment?

A Because I used it for five other companies?

Q Yes.

A No.

Q Your proposed bad debt expense of 250,000 plus is approximately $95,000 less than test year bad debt expense; correct?

A Right.

Q And it is also approximately $60,000 less than bad debt expense for the year prior to the test year; correct?

A Yes.

Q You know, I think you answered this question, but let me make sure that I understand it. The reason that you suggested this adjustment was based on, I think, two things. Number one, you said you wanted to provide an incentive for Delta to do better on bad debt expense and, second, there are some steps being taken in which Delta anticipates doing better and, therefore, the bad debt expense for test year purposes ought not be as high as the actuals; did I state your position correctly?

A Yes, I'd rather say it in my own words, but--

Q I'd rather say it in my own words.

A Yeah, I know, I am saying that this involves an expense that has an alarming trend where we also know that now that the company itself has found that it is getting out of hand and apparently is taking some really aggressive steps to work on it. It is not only my own recognition, I think the company recognized it. And for the purpose of setting rates for this company, I just don't think that you can assume or can even allow the company to use a ratio, an uncollectible ratio that I don't think has ever been higher than the 1% of revenues. You ought to set a more reasonable level, as the company has recognized itself. They are working very hard on taking care of that problem. Now, do I go beyond the test year in that because the company is looking at 1999? Yeah, you could look at it that way but this is an expense, we are not talking about a rate base item or something. So, yes, that's right, it is an incentive on the one hand and also a recognition that there ought to be an improvement made and recognition that the company is, indeed, working on that at this point.

Q Given that approach, do you think the Commission should also adopt the practice of including expense items which might increase on a perspective basis or new expense items which might come into existence after the test year end?

A I am saying that if the--if you are talking about a known and certain expense, let me give you an example, about the pension expense that Mr. Brown mentioned yesterday. All right. Now, we are of the opinion right now that the most recent pension expense that was given to us, as it was to the Commission, is $181,000 and you add $40,000 to it for administrative costs, trustee fees and all that. Mr. Brown, and even though we haven't seen the documentation, he is saying that right now, there apparently is an actuarial report that says that you will be booking a higher level, 267,000 or something like that. If that is indeed the case we will look at the documentation and it became a little fuzzy at the end when you started redirecting and I wasn't--I came away with the impression that maybe that number included life insurance premiums. But no matter what, if

we look at it and that indeed is a legitimate cost number, I would accept it. It is a known and certain expense at this point in time. We have not had an opportunity to do discovery on it, but if this can be given to us and indeed it shows that it is a legitimate report of your actuary and all that, and this is, in fact, what you will be booking now, then I think you restate the test year pension expenses and put that amount in.
Q Well--
A So, we are not here to, you know, to bury you, we are here to try to be fair.
Q You come to praise us, not bury us, correct? Mr. Henkes, is the amount that you determined using a four year average on bad debt expense a known and measurable bad debt expense or is that--
A It is an objective to shoot for. I think that it is like a more reasonable level than is reflected in the test year.
Q You say in your testimony that was submitted in the Alt Reg case that Delta's Alternative

Regulation Plan would automatically keep Delta within the return of equity range established by the Commission? It is on page four if you want to refer to it, but I expect you can remember that.

A Yes, I do remember that.

Q If we assumed that Delta's O&M expenses increased at a much faster rate than the CPI, then Delta's-- then the Delta's Alternative Regulation Plan would not automatically allow Delta to earn a return within the zone of reasonableness authorized by the Commission, would it?

A If I assume that your O&M expenses increase at a rate much higher than the CPI-U?

Q Yes.

A Then one must make the conclusion that you will not make your rate of return?

Q Correct, it is not going to automatically allow Delta to earn a return within the zone of reasonableness range?

A No, I don't agree with that statement at all. First of all, you are confusing things. We are not talking about O&M expenses, you are talking about O&M per customer expenses and, you know, your O&M per customer expenses over the last eight years has been going down, not been going up. So, you are making an assumption here that is totally unrealistic, and then, to say that just looking at that one element should therefore, then, lead to the result that you are not going to make your return, I'm not sure that I can agree with that. That sounds like a very simplified statement that--

Q Part of the purpose of the Alternative Regulation Plan is to make this process a little more simple and, the fact of the matter is, if expenses increase faster than the consumer price index, then the consumer price index constraints which are contained within the plan will keep the rates from rising higher than the CPI?

A Now, wait a minute, you don't use expenses, you use expenses per employee, so you have got to look at both items. I mean, I don't go for that.

Q Okay, fair enough.

A That's not your plan.

Q Well, let's see if there are some things that

we can agree on, how about that?
A That would be great.
Q Isn't it true that Delta is required to submit a filing with the Commission before the annual adjustment component can be implemented each year?
A The AAC?
Q Yes, sir.
A You have to come in with a filing?
Q Yes.
A Yes, I agree with that.
Q I take it you also agree that with that filing Delta is required to supply the Commission with certain data, including its budget, as well as any other data the Commission deems necessary; you agree with that, don't you?
A Yes, lots of stuff.
Q Right. Delta is also required to submit a filing with the Commission before the actual adjustment factor, the AAF can be implemented each year; correct?
A Yes.
Q Delta is also required to submit a filing

with the Commission before the balancing adjustment factor, the BAF, can be implemented each year; correct?

A Yes.

Q Since Delta must submit these filings with the Commission for review before each of the components can be implemented, it is not really an automatic adjustment clause, is it?

A It--I would say it is a virtual automatic adjustment clause because the way the procedure is set up it almost sounds like a virtual--I don't say--want to say rubber stamp, but the 30 days to look at it and a couple of telephone conferences and it doesn't sound to me like it is a rigorous review, so particularly if you are talking about a budget where you still have to dig out whether--what is in there and maybe the kitchen sink or what are things there that the Commission in the past has ruled against. To do all that in 30 days is just not realistic, so I'm just making the assumption that not much can be accomplished during that time and, then, under that scenario, it is basically an automatic adjustment clause. I maybe say it a little too strongly, but that is really what I mean.

Q And that is your basis for saying it; correct?

A There is a lot of other reasons why I say this, this is only one reason. I call it a guarantee--and I think I call it a GREM, guaranteed return on adjustment mechanism, return on equity mechanism, yes.

Q But those reasons that you just explained are the ones that are the basis for your statement that it is an automatic adjustment clause regardless of other pejorative things you might want to say about it?

A Those plus the fact that you almost--it is virtually dollar for dollar recovery on a-- even on a retroactive basis. I mean, one of the big differences between your plan and the Alabama plan, which was never mentioned by the company, by the way, is that in Alabama when you go over the range you have to return the excess of the earnings. When you fall under the range you are not allowed, in

Alabama, under the ACC to adjust your rates prospectively to make up for that retroactive adjustment, for the retroactive short fall in earnings. So, any time that during the AAC period in Alabama you are earning under the return on equity, the Alabama Gas Company is not allowed to take that shortfall and build it into their rates for the next period. And I can show that--where that is in the Alabama tariff and, in fact, when we asked the company the question to confirm that, you confirmed that. And I can tell you which data response that is.

Q Well, I was a little puzzled by your statement a moment ago that Delta never mentioned what you just described, whereas, on page nine of the initial February 5, 1999, letter to the Commission proposing the Alternative Regulation Plan, there is a paragraph that does explain that matter.

A I was just referring to a question that was asked by the Commission where they asked if you list all of the differences, and it was question number 32, between your Alt Reg Plan and the Alabama Alt Reg Plan, this thing certainly wasn't in there. But as you say, it makes a huge difference because that means in Alabama there is no guaranteed earning rate of return, whereas, in your case you have this symmetry built in, you will guarantee it. Because you allow, if you earn under 11. whatever it was, 11.1% for the AAC year, you are allowed to recover that short fall, that retroactive short fall, in your next AAC. They don't allow it in Alabama.

Q In your testimony that was filed in the alternative regulation proceeding, it is at pages 22 and 23, but the essence of what you said was that the three performance base rate making mechanisms in Kentucky that we have discussed a good deal, I think it is Western, LG&E--

A Yeah.

Q --and Columbia.

A Columbia.

Q Differ from Delta's proposed plan because they have "tough benchmarks that must represent improvements over what the

utilities were achieving previously," do you remember that?
A Yeah, hard to achieve, tough.
Q Yes, you called it tough.
A Challenging.
Q Have you performed a detailed analysis to determine whether all the benchmarks contained in all of those mechanisms, in fact, represent improvements over past performance by the utility?
A No, I think that is irrelevant. The relevant part is, what is the Commission's policy? And the Commission has set a policy in those three cases, and that policy is that under-- if you want to have an incentive rate making mechanism, then you have to have benchmarks in there that require exceptional performance and represent improvements over prior actions, and that is the objective. Now, I haven't checked to see whether it was tough and whether they met it or didn't meet it, I mean, to me that is not relevant. What is relevant is what the Commission thinks is important in establishing these incentive

mechanisms.

Q Well, but didn't you say in your testimony that those three PBR mechanisms contained tough benchmarks?

A Yes, I did say that.

Q Are you saying today that you don't know whether they do or not; is that right?

A Oh, yeah, I can tell you, for instance, what was tough in one those things, okay. In the Columbia case, it had to do with the sharing of capacity release revenues. And Columbia said, okay, we just want to share 50/50, whatever it was, 65/35, I think it was.

Q Wasn't that LG&E capacity release?

A No, it was Columbia. That was Columbia, 65% back to the customers and 35% retained by the company. And the Commission said no we are going to set a very challenging benchmark. And that is, they looked at highest annual capacity release revenue level in the past and they said that is the benchmark. You are going to have to make those revenues first and you are not going to get one penny of that, that all goes to the ratepayers. And when you beat that then you can start sharing 65/35, and I find that a tough benchmark. And when I compare that to your powerful performance based cost controls, there is just no comparison, they are meaningless. And I don't want to say this in a derogatory sense, it is just that there is no incentive, these--this cost control is not really a cost control measure.

Q Did you determine whether there were any other components of any of these performance base rate making mechanisms that you cited in your testimony constitute what you call a challenging benchmark?

A There were. I think, generally, the Commission used market based prices, but then also decided to reduce those market based prices to reflect certain discounts that once in a while were given by the pipelines, so that you wouldn't just start sharing based on the status quo. You ought to do better than what you did before. I think that was in the Western case, Kentucky case. But, generally, it was market based prices and then taking it one step further.

Q Did you look at the Western Kentucky mechanism to determine if, in fact, they require improvement over past performance by the utility or whether they theoretically do?

A I looked at--no. Grant you, I looked at the Commission order I did not look at the entire mechanism to try to figure out, you know, how it worked, but I just didn't think that--

Q Sure.

A --it was important.

Q Mr. Henkes, Steve is bringing you a document that, Your Honor, we would like to have marked as Delta Hearing Exhibit Number 3.
Mr. Henkes, the document that Steve has handed you is a copy of the LG&E experimental performance based rate mechanism tariff.
Have you ever seen this before?

A No.

Q I believe you testified in the testimony submitted in the Alt Reg case that the three PBRs of LG&E, Columbia and Western are fairly simply to understand, implement and administer, that is at page 24 of your testimony. You said that, didn't you?

A Yes, and in that I meant that in the sense that you were talking here about a PBR mechanism within a dollar for dollar recovery clause in the first place, whereby, the decision was made to, in an effort to improve operation and financial performance to make it a system of penalties and rewards by setting certain deadlines. And if you can beat them you can start sharing in it and if you don't then you have some penalties. And the sharing would be 50/50 and the benchmark, I think in LG&E's case, this is presumably market based cases, and there were some thresholds. In that sense I meant to say that, where we are not having three different filings and BAFs and AACs and AAFs and bands and percentages over and under the band would become quite convoluted. I meant it to say in that sense, I mean, if you wanted me to take you through these formulas and try to prove that this is also very complicated, we can do that. But that is the way I meant to say it.

Q I take it you would be willing to stipulate that the formulas contained in the PBR tariff of LG&E are extremely complicated, aren't you?
A No, I have seen it--
Q Well, let's go through them. Let's turn to page 14-D, sheet 14-D.
A B?
Q 14-D.
A D.
Q Do you see the formula that is about a third of the way from the top of the page?
A Right.
Q Would you please explain that for me and to the Commission?
A I haven't seen this before so I can't--how can I explain this if you give this to me, I haven't seen it before?
Q I thought you just said it was simple?
A Maybe when I study it and go home, I look at it and I say the light goes on, I say it is very simple. But when you want me to try to, you know, take this formula and explain it, that is not possible.

Q Perhaps what we can do I expect we will be breaking for lunch before I'm finished your testimony, maybe you can study it over the lunch and come back and tell us how simple it is; how about that?
A You are going to ruin my lunch.
Q Mr. Henkes, it doesn't look simple to me but, you know, I don't do this for a living, and I was just wondering, you know, what was the basis for your statement in your sworn testimony--
A I just meant--
Q --that this tariff was simple to understand, implement and administer?
A That was based on my reading of the Commission Orders as compared to the reading of your plan.

CHAIRMAN HELTON:

Mr. Watt, this seems to be a good time for us to take our lunch break so that he will have time to look at this.

MR. WATT:

Okay, he can study it then.

CHAIRMAN HELTON:

Vivian, if we could go off the record please

(OFF THE RECORD)

CHAIRMAN HELTON:

Mr. Watt.

MR. WATT:

Thank you ma'am. Just sort of an administrative detail, Your Honor, we would move the admission of Delta Hearing Exhibit Number 3.

CHAIRMAN HELTON:

So ordered.

(EXHIBIT SO MARKED: Delta Exhibit No. 3)

(CONTINUED CROSS EXAMINATION)

BY MR. WATT:

Q Mr. Henkes, did you have occasion to look at the formula on Sheet Number 14-D of Delta Hearing Exhibit Number 3 over the lunch hour?

A Yes, I glanced over this plan and in the interest of time I am willing to stipulate that none of these plans are simple.

Q Thank you. Do you know what was done by Louisville Gas & Electric to implement this

mechanism?
A What was done?
Q Yes.
A No.
Q Would you accept, subject to check, that there are over a 100 pages of calculations filed each quarter by LG&E in connection with this mechanism?
A Subject to check, yes.
Q Do you know what steps are involved in the Commission's administration of the mechanism?
A No.
Q Would you please refer to your Schedule RJH-3?
A Are we back on the rate case?
Q Yes.
A Yes.
Q The one about ADIT; do you have that before you?
A Yes.
Q I believe that that schedule shows that ADIT has an adjustment proposed by you of $666,905; is that right?
A Yes. Let me just do a quick check. Yes.

Q And that adjustment references Schedule RJH-5; correct?
A I see that the two amounts don't reconcile but--
Q Do you know what--
A I'm trying to figure that out. I mean the 666,905 is the difference between what you recommended per books amount of 8,437,000 and the 9,104,000 unless my computer model missed something, let me just--
Q Well, we were trying to guess what may be the reason for the discrepancy and--
A Oh, I know what it is.
Q Okay, go ahead.
A I think what it might be is--no, it is not--that is not the reason. I thought it was the allocation to Canada Mountain, but that is not it.
Q Well, I think you are on the right track, did you maybe intend to include the fair note amortization of 16,200 and a bad debt reserve of 47,300?
A No. What my intention was to use the same--the exact same ADIT components that were

allowed by the Commission in the last case.
Q Uh-huh.
A And those were accelerated depreciation, which is on line one; alternative minimum tax after the rehearing on that, which is on line four; advances for construction, which is on line six; and then the unamortized debt expense of 388,205 and the storage gas of 1,100, it gives you 9,103,630. So, the 9,103,630 is indeed the number that would be derived based on the Commission approved method. Now, right now; I don't have a--I can try to figure out what that difference is, but the 9,103,630 in the Attorney General's recommended rate base is the correct number.
Q Could I get you after we have left here to see if you can reconcile those two numbers from Schedule 3 and Schedule 5 and then provide it to us later?
A Sure. I'm sure it is a computer error or as model error or something that didn't pick something up.
Q Going back to the Columbia, Western and LG&E

PBRs, did you ever perform any sort of review or analysis about how those companies gas supply costs performed in relation to the benchmarks during the five year period prior to the implementation of each utility's mechanism?
A No.
Q Did you do it for any period prior to the implementation of each utility's mechanism?
A No. As I said before, to me the relevant aspect was the language used by the Commission in setting the benchmarks required to have an incentive mechanism.
Q Mr. Henkes, in your response to the Commission's Data Request, Item 36, the one about rate case expense, and the normalization issue, do you remember that?
A Yes.
Q You submitted, as authority for your position, testimony of some guy from Artesian Water Company, I assume he is, why don't you tell me that, is David P.--
A State.
Q --State, is he an employee of Artesian Water

Company?

A He is Vice President and Chief Financial Officer, Treasurer.

Q Now, is--was it your intention to utilize this fellow's testimony in support for the proposition that normalization is appropriate rather than amortization with respect to rate case expense?

A The question was, is the AG aware of any other jurisdiction that uses a normalization methodology for the recovery of rate case expenses, provide a listing of the jurisdiction and a copy of a recent decision describing the use of normalization methodology. So, I think I sent some copies of decisions involving New Jersey, as well as Delaware, sent a copy of a Superior Court Order, recent Superior Court Order in Delaware. And just to complete the picture, I also pointed out that in this current ongoing rate case, Artesian rate case, the company had found out that, by mistake, that they had included rate case expenses for two rate cases. And in their supplemental testimony they took the one rate case expense out which was the one prior to the current one. So, you know, that was the reason why I attached it as well.

Q You didn't attach it, I take it because you felt somehow that Mr. State's testimony had more creditability than the testimony of the Delta witnesses that said it ought to be treated otherwise; correct?

A No.

Q It is just illustrative?

A Yes.

Q Speaking of the New Jersey decision, are you aware of any New Jersey authority more current than 37 years old for the proposition that rate case expense ought to be normalized rather than amortized?

A I'm aware that the one I send you, I didn't have much time to do the research but I found that one in my files and I know it was from-- remind me was 1970--

Q `62.

A `62. There might be more recent ones, I've got to go back and look for them.

Q But you didn't look for them and you don't know whether there are, as you sit here today?

A Not as I sit here today, no.

MR. WATT:

That's all the questions I have Your Honor. Thank you Mr. Henkes.

CROSS EXAMINATION

BY MR. WUETCHER:

Q Good afternoon Mr. Henkes. Have you reviewed Delta's response to Item 23 of the Commission's Order of September 14, 1999?

A I need to see a copy of that.

Q Okay. Item 23 of Delta's response to the Commission's order of September 14.

MR. WUETCHER:

Of 99-176.

MR. WATT:

He has got it.

Q Do you have it to Item 23?

A I'm looking at it. I've not seen that before.

Q Okay. Well, let me go on to my next question and it may become apparent to you. These are somewhat similar to what Mr. Brown was asked yesterday. Based upon this response, would you agree that Delta's pro forma payroll that would be charged to operations and maintenance expense would be $4,612,184?

A Now, you have to tell me how you got that.

Q If you will go to page four of the response, right down at the bottom that would be six million--

A 125?

Q Whoops, wait a second, sorry, page five, 6,213,582, the last figures on the page, at the very right hand?

A Yep.

Q Okay. That's total payroll minus $1,595,398 from capitalized labor?

A And where is the one million?

Q Which is found on the next page.

A Minus 1,595--

Q 398?

A Yes.

Q And then minus $6,000 related to subsidiaries, that figure being found on the first page in Response C? It adds to

4,612,184?

A Yes.

Q Would you agree that based on that response that is what maintenance expense should be?

A That's what the--

Q I'm sorry, but Delta's pro forma payroll that would be charged to operations and maintenance expense would be?

A Yes.

Q Would you agree, subject to check, that by subtracting the actual payroll charged to operations and maintenance expense, the $4,531,719 from pro forma payroll of 4,612,184, a payroll adjustment of 80,465 would result?

A Yes, and that's $5,500 less than what I had recommended on Schedule RJH-10.

Q Okay. Let's go to rate case expense. In Case Number 97-066 the Commission determined that Delta's rate case expense of $101,350 should be amortized over a five year period. Given the Commission's determination in the prior rate case, why should Delta not be permitted to include $20,270 in rate case amortization in this proceeding?

A I gave a long response in a data response on that. I believe that for rate case expenses one should apply what I would call the normalization method, which I think you should apply to expenses that are associated with a recurring aspects of the company's operations. It doesn't necessarily have to happen every year but it comes about every two or three years or every year, and it doesn't have to be at the same amount, it can vary. I think rate case expenses are an expense that fits in that category. Amortization expenses, I think, should be applied to items of an extraordinary nature, storm damage expenses, flood expenses, a Commission ordered management audit, for instance. You don't know when this is going to happen and when it happens you don't know how much it is going to cost. Sometimes it is 100,000, sometimes it is a million, so in those cases I think you can have amortization where you essentially have dollar for dollar recovery. Rate case expenses, I think you say, okay, we will amortize it, we will use a five year amortization period, or a three year amortization period, and that's the level we set in the rates. Now, if the rates are in effect for two years and you are missing out on one year, that's too bad. If the rates are in for five years, then they gain two years, so it always balances out. I don't agree with the concept that you can have a rate case expense at $25,000 in this case because the company recovered it for two years. At the same time you have the management audit amortization expense in this case, $64,000 that is being amortized over three years, and I'm referring to AG 25, by the way, all the data is on there. It is being amortized over three years, it has been recovered in 1998, it is being recovered in 1999, there is one year left. Now, unless the rates of this company change at the end of 2000 the company is going to over recover $63,000 a year for management audit. If you want to include the $24,000 of the rate case expenses in this case, I suggest we take the

63 for the management audit and reamortize it over three years and, therefore, only include 21,000 in the test year and make a $40,000 adjustment. I think you ought to be fair and in this case apply symmetry.

Q Do you agree with Delta's proposed three year amortization rate cost for the rate case expenses incurred in this proceeding?

A I thought--let me put it this way, I know that the Commission in the last case used five years. I know the company originally filed for five years. I think the company during the proceeding came back and said it ought to be three years, I think it is a matter up to the Commission to decide, you know, whether it is three or five years. I think that if, for some reason, the Commission were to give consideration to the ARP or to the weather normalization clause, the Commission should definitely think more about the five year amortization than the three year amortization.

Q Should the Commission consider recovery--Delta's recovery of the Mt. Olivet plant acquisition adjustment in establishing rates in this proceeding?

A I was asked that question and we didn't have any data on it, so I basically had a non-answer saying I hadn't had time to study it. I know that you asked the same question of Delta, the revenue requirement index is $8,300, I think. I don't know what this acquisition is all about. All I know is that, at least from the Company's calculations, has a very small revenue requirement impact. If it has to do with use and useful services delivered to this company's ratepayers, then you would think that you would include it. But we haven't had any time to discover on it.

Q Okay. Well, let me try to focus down on a narrow issue involving that. The acquisition of the Mt. Olivet plant has not been completed, according to Mr. Jennings' testimony. Assuming that it has not been completed, should--and just bearing that in mind just on that sole issue alone, not withstanding any other considerations that you might get in looking at it, should the Commission consider Delta's recovery of that

acquisition adjustment in this proceeding?
A No, if the acquisition hasn't taken place then no aspects of this acquisition should be included in this case, rate base, expense, revenues, nothing.
Q Okay. Then you would agree that any type of rate making treatment should be deferred until the acquisition is completed?
A Yes.
Q Are you aware of any other jurisdictions that would allow a utility to recover the cost of an investment similar to Delta's Canada Mountain storage assets through a gas recovery mechanism rather than through general rates?
A No.
Q One final question, you were asked a series of questions regarding the Louisville Gas & Electric Company's tariff. Would you agree if I--assume for a moment that that tariff was originally part of LG&E's proposal in its entire format, would you agree that it could not be said to be lacking in specifics, as far as how that provision was going to operate?

A Yes.

MR. WUETCHER:

That's all we have, thank you.

MR. WATT:

Your Honor, I have just a couple of recross questions.

RECROSS EXAMINATION

BY MR. WATT:

Q Mr. Henkes, during Delta's last rate case, 97-066 in which you testified, didn't you propose that Delta amortize rate case expenses in that case?

A Semantics. In other words, I proposed that whether you call it amortize or normalize, I think that you say, okay, what is the cost of this rate case, the estimated cost. Let's say it is $150,000. And then you say, okay, now, what level of cost am I going to build into the annual rates so that I give the company an adequate allowance to cover ongoing rate case expenses. So, we can say I'm going to amortize it over five years or I'm going to use an amortization period of five years or a normalization period of five years, I agree that I'm using normalization for the first time in this case and not in the last case, and that may be a little confusing but the intent was there. The intent that I had in the last case is the same as I have in this case.

Q Do you believe that any unamortized rate case expense should be included in Delta's rate base?

A No. You don't--the moment you talk about normalized expenses you don't have any unamortized expense in the rate base. You only have that with amortization, deferrals and amortization.

Q Is that another semantic issue?

A No.

MR. WATT:

That's all I have, Your Honor.

CHAIRMAN HELTON:

Mr. Wuetcher.

MR. WUETCHER:

No, we have no further questions.

CHAIRMAN HELTON:

You may be excused.

MS. BLACKFORD:

Thomas Catlin.

(WITNESS DULY SWORN)

The witness, THOMAS S. CATLIN, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BLACKFORD:

Q Would you state your name and business address for the record, please, sir?

A Certainly, my name is Thomas S. Catlin, C-a-t-l-i-n, and my business address is Exeter Associates, Incorporated, 12510 Prosperity Drive, Suite 350, Silver Spring, Maryland.

Q Mr. Catlin, are you the same Thomas Catlin who filed testimony in the matter of 99-046, Delta Natural Gas, Inc., to implement an experimental Alternative Regulation Plan on January 30?

A I am.

Q And are there any amendments or corrections that you wish to make in your testimony?

A Yes, I need to make two corrections. On page 10, line 15, the number there "2.28" should be "2.36." And on page 16, line 24, the case reference to 99-070 should be "99-176."

Q And with those amendments or corrections, were I to ask you the same questions today, would your responses be the same as given in that testimony?

A They would.

MS. BLACKFORD:

I move his testimony into the record and the witness is available for cross.

CHAIRMAN HELTON:

So ordered. Mr. Watt.

CROSS EXAMINATION

BY MR. WATT:

Q Mr. Catlin, before you get off page 16, the change that you just made with reference to Case Number 99-070, you changed it to 176. 99-070 is Western Kentucky Gas' general rate case, are you a witness in that case?

A No, I'm not.

Q Why did you put 070 in there?

A I gra--I was looking for the filing reference and I just picked the wrong one off of the

sheet that was in our office.
Q Would you please turn to page ten of your testimony.
A I have that.
Q I'm paraphrasing, frankly, but I just want you to confirm that you say on that page that the O&M expense controls contained in Delta's proposed Alt Reg Plan are not likely to impose "any real limitation" on the increases in O&M expenses which can be passed through to ratepayers; did I correctly paraphrase your testimony?
A Yes.
Q Is that statement based, at least in part, on the rate of change in Delta's non-gas O&M cost for the five year period from `93 through `98, as compared to the increases in the CPI-U?
A It is based on the change in the cost per customer. Over the historical period the O&M cost per customer relative to the--both on a stand alone basis and relative to this CPI-U.
Q Was that done over a five year period?
A Yes, `93 through `98, that's the changes in

`94, `95, `96, `97 and `98, relative to `93.

Q You understand, don't you, that Delta's proposed Alt Reg Plan calls for the O&M expenses reflected in the base rates to be re-established every three years?

A I believe Mr. Seelye indicated that in his testimony. However, other than the--after the end of the experimental period I didn't see anything nor did I hear anything in the last two days that wouldn't require the O&M expenses to be re-established every three years. In fact, at the end of the three year experimental period it is not necessarily the case that they would have to be re-established.

Q But at least at the outset your five year comparison is really sort of an apples and oranges comparison to Delta's three year experimental period; isn't it?

A Well, I don't think so. I think the fact that over the--whether you look at three years or five years, the fact that the O&M cost per customer have declined if you extend the period--I will grant that the amount of--

the difference in the O&M relative to the CPI-U that the over-recovery amount could vary, or will vary, depending on how many years. But I was really relying on this primarily to focus on the fact that an O&M cost per customer were declining. And so, if you set a standard--a performance based standard that allows them to increase at the rate of the growth from the CPI-U with a 1 1/2% allowance, you are really not imposing a true performance based incentive on cost control. If just the 1 1/2% allowance is--if you are limiting it to three years is an additional half a percent per year. And that was really my point, I didn't want to get hung up on specific dollar amounts, it was the concept of are we really imposing a true limitation here or not.

Q Well, you just mentioned that over this five year period Delta has managed to hold down the rate of change in its non-gas O&M cost to a level that is less than the rate of inflation. Is it your position that the Commission ought to come up with some tougher index or measure to somehow penalize Delta for its efforts to hold down cost? That's not your position, is it?

A I'm not proposing to penalize Delta, no.

Q But you think there ought to be some tougher measure; is that what you are saying?

A Well, if you are going to--I think it is a generally accepted concept that if you are implementing a performance based form of regulation, if you are implementing a performance based control in the determination of what rates will be, the object is not to reward for achieving less than what is historically been accomplished without the performance based measure. Normally, a performance based measure is established relative to historical accomplishment and the object is to reward the utility for performing better than has occurred historically. That has certainly been the case in the various performance based investigations and proceedings that I have been involved in.

Q Mr. Catlin, can I get you to make some assumptions for purposes of a question I'm

going to ask you later. Would you assume that Delta's Alternative Regulation Plan is in effect today. And would you then also assume that Delta's O&M cost increases were, in fact, less than the increases in the CPI-U. And let's finally assume that you are a customer of Delta, okay?
A Okay.
Q Wouldn't your rates be lower than they would otherwise be if Delta's O&M cost increases were equal to or greater than the increasers in the CPI-U?
A Just repeat your last question again, I'm sorry?
Q That's okay. Wouldn't your rates, given those three assumptions I just gave you, wouldn't your rates be lower than they would otherwise be if Delta's O&M cost increases were equal to or greater than the increases in the CPI-U?
A If costs grow at a lesser rate and you are passing through the changes in cost through the mechanism each year, yes.
Q Mr. Catlin, you said in your testimony, specifically at page seven, lines 12 through

13, that Delta's Alternative Regulation Plan provides guaranteed recovery of Delta's costs; do you remember saying that?

A Yes.

Q Is this simply your opinion from having examined the plan?

A Yes.

Q You didn't perform any analysis of all the components of the proposed plan, including the proposed cost controls that on your part support that assertion?

A No, I did base it on my analysis of what I thought would occur under the plan based on the information that had been provided in this case, including recognition of the cost controls or the performance based controls that were added subsequent to the original filing.

Q Is that analysis in writing or are there work papers that go with it?

A No. It is based on my analysis as I've tried to explain it in my testimony.

Q So, if we wanted to look at your analysis, the only way we could do it would be just ask

you questions about it or read your
testimony?
A That's correct.
Q You have stated in your testimony that the GDP-PI, the gross domestic product price index, is more representative of price increases experienced than the CPI-U proposed by Delta to measure O&M cost; did I correctly state your position?
A I think more or less, yes. I mean, I don't know that I've used those--that exact words but, conceptually, that is what I've stated, yes.
Q Would you turn to Item Number 51 of Delta's data request to the Attorney General? I want to apologize, I keep asking you all to turn to the item of the request, I'm really wanting you to turn to your response.
A I understood that and I have that, I have a copy of it.
Q If you look at the request there, we ask you to provide the monthly GDP-PI values for the past 20 years; right?
A Yes.

Q And your response was that the values are published on a quarterly basis and are available in various publications of the United States Government and you didn't attempt to identify all of the values; correct?
A That's correct.
Q So, you didn't provide the requested information, right?
A I cited where it could be found, I didn't have all the requested information.
Q The CPI-U is published monthly rather than quarterly, isn't it?
A It is.
Q Don't you believe that a more frequently published report would be a preferable index for something like Delta's Alt Reg Plan?
A Not necessarily. I think the better or more important measure is--or the more important factor is the applicability and the representativeness of the index that is being used, not how often it is published.
Q Isn't transportation a component of the CPI?
A Is it a component?

Q Yes.
A Yes, it is.
Q Aren't gasoline prices reflected in that index?
A There--they are a component, yes.
Q Heating fuel and electricity, those two items are a component; correct?
A What was the specific component?
Q Heating fuels and electricity?
A Fuels and utilities are one cost, but it is included.
Q I'm sorry, go ahead and finish.
A Are one cost that is included or one component.
Q Are those the kinds of cost that are included in Delta's O&M expenses?
A Yes, but the major component of--the major component, the single largest component of the CPI-U is housing, and I don't think that that is a cost that is included or have a determinate of Delta's costs or the increases. And I would also note that changes in the cost of fuels, changes in the cost of transportation are also a factor in

the GDP-PI. It is my recommendation with regard to the GDP-PI is that it is simply a broader index, it is a broader measure of the changes in prices. The CPI-U is fairly narrow, narrowly defined measure of price changes.

Q Aren't changes in wage rates more likely to approximate the CPI than the GDP?

A I haven't--I haven't looked at that but I wouldn't necessarily think so, no.

Q Aren't most labor contracts drafted in such a fashion that the adjuster that is used in it is CPI and not GDP?

A I think there was a point in time where that was common, I think that is far less common now. I think most contracts have fixed, most wage contracts have fixed rates of change that are negotiated between the parties that are parties to the contract.

Q So, they don't use GDP either, then, do they?

A I think that is true. I don't think they are specifically indexed.

Q Do you know whether or not this Commission has ever used the GDP-PI to normalize costs

in rate cases?
A I don't know specifically. I do know that they have used the GDP-PI in a performance based regulation arrangement.
Q Do you know whether or not this Commission has ever utilized CPI-U to normalize costs in a rate case, costs such as storm damage or expenses and the like?
A I do not.
Q Would you turn to your response to Delta's Data Request, Item 51(c), please, sir?
A I have that.
Q The last sentence of that response reads "As such, Mr. Catlin believes that the GDP-PI is more likely to be reflective of the effects of inflation on Delta than is CPI-U," did I read that correctly?
A You left out the word "the" before CPI-U, but yes. I mean, I'm not--you asked me if you read it correctly and you did leave out a word, I'm not trying to be--I know that didn't sound right.
Q Do you have any--in that request we asked you to provide any empirical evidence that

supports your assertion that the GDP-PI is more representative, and you didn't provide any, did you?

A What I told--what I think I ex--I did not provide any specific surveys or empirical data of others. What I told you is what I thought it was based on what each index measured and the relative components of each of the indices. Other than that, the answer was no.

Q In Item 51(e) where we had asked you to provide copies of economic journals or other authorities that support your conclusion, you didn't provide any, did you?

A No, I did not.

Q Are you aware that the Alabama Commission has adopted the CPI-U as the index to be used in Alagasco's Alt Reg Plan?

A Yes, I am. And I think I addressed that in one of my responses, as well, and indicated that I had no information on how the CPI-U was selected there and there was no information provided in this case that would suggest that CPI-U was the better measure for

Delta.

Q Would you turn to page 14 of your testimony? At the very top of the page you say, "There will no longer be any review made to establish the net plant in service and other assets devoted to providing public utility service on which the company is entitled to earn a return." Is that right?

A Yes.

Q You agree don't you that Delta must submit a filing with this Commission each and every time a change takes place under the Alt Reg Plan?

A Yes.

Q You are not suggesting by your testimony on page 14 that the Commission is not going to thoroughly scrutinize those filings, are you?

A I'm not sure what the Commission's ability to thoroughly scrutinize the filing would be within the time frame that has been allotted, but my specific reference here was devoted--or was--attempted to refer to the fact that the Alternative Regulatory Plan was set up to be based on a return on capitalization and, as I understood from the last case, and I did hear the controversy this morning or the discussion this morning about prior practice, but I had understood that at least as of the last case that the Commission was calculating return on rate base. And that is not the way the ARP was set up, it is a return on capital rather than a return on rate base.

MR. WATT:

Thank you Mr. Catlin. I have no further questions Your Honor.

MR. WUETCHER:

No questions.

CHAIRMAN HELTON:

You're excused.

MS. BLACKFORD:

Stephen Estomin.

(WITNESS DULY SWORN)

The witness, STEPHEN ESTOMIN, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BLACKFORD:

Q Dr. Estomin, would you please state your full name and business address for the record please?

A It is Stephen Estomin, my business address is Exeter Associates, Incorporated, 12510 Prosperity Drive, Suite 350, Silver Spring, Maryland.

Q Are you the same Steve Estomin who caused testimony to be filed on behalf of the Attorney General in Case Number 99-176 consisting of both testimony and exhibits, I believe,--

A I am.

Q --on September 23 of this year?

A I am.

Q And do you have any corrections or amendments that you need to make to that testimony?

A I do not.

Q Were I to ask you those same questions, would you give the same response as given in that testimony?

A I would.

MS. BLACKFORD:

I move the testimony into the record and hold the witness available for cross.

CHAIRMAN HELTON:

So ordered. Mr. Watt.

MR. WATT:

Thank you, Your Honor.

CROSS EXAMINATION

BY MR. WATT:

Q Good afternoon.

A Good afternoon.

Q Mr. Estomin, you've never prepared a utility cost of service study prior to this proceeding have you?

A That's correct, and I didn't prepare one in this proceeding.

Q Prior to this proceeding you had never prepared a zero intercept analysis as part of a professional study, have you?

A That's correct.

Q Would you please look at your response to Item 71 of our data request to the Attorney General? Do you have that before you?

A Yes, I do.

Q I believe in response to that question you stated that you were unaware of any cases in which the Commission has subsequently rejected the zero intercept methodology utilized by Delta in this proceeding and substituted either your methodology or a similar methodology in its place; correct?

A That's correct.

Q Have you since become aware of any?

A No, I have not. I have not looked into that.

Q Would you look at your response to Number 72 on the same data request? There you said that you were unaware of and you were unable to provide copies of any cost of service studies that utilized the weighted least squares methodology performed by you; isn't that right?

A That's correct.

Q I take it you still haven't found any?

A That's correct. But let me back up a step, if you are--the least cost approach that you are discussing, I believe, is the one where W, the weight, is used as a weight to multiply the variables in the equation by, that's correct. That, as you are aware, is not the approach that I'm recommending in this proceeding.

Q Would you look at Item 73? Again, you said that you had not analyzed and you were

unaware of any Commission orders that support the weighted least squares approach utilized by you; is that right?
A That's correct.
Q You still haven't found any?
A That is correct.
Q Mr. Estomin, isn't one of the purposes of a regression analysis--I'm like everybody else, I'm having trouble with in this proceeding, let me back up and start over. Isn't one of the purposes of a regression analysis to determine a best fit curve which is representative of the data being analyzed?
A That is one of several factors that need to be considered and probably not the most important and, specifically, in reference to the fit.
Q Well, I think my question said isn't this one of the purposes, do you agree with that?
A That would be correct, it is one of the purposes.
Q Would you agree that if the pipe size and the cost of each and every foot of pipe were known, a weighted least squares regression analysis would

be unnecessary?

A Yes, that is correct.

Q When the data is grouped by size and we only know the total cost and total feet in each sized category, shouldn't the regression methodology used to calculate the zero intercept and the slope produce the same results as an ordinary least squares regression would produce if the size and cost of each foot of pipe were known?

A Yes. That example is generated in Mr. Seelye's rebuttal testimony and I have absolutely no disagreement with the econometrics shown therein.

Q Well, you sort of were getting to the next point that I had. You have looked at Mr. Seelye's rebuttal testimony at pages 2 through 21 of his rebuttal testimony?

A That's correct.

Q And you don't have any problem with the econometrics in that discussion; is that right?

A No, I don't have any problems with his calculations or his example, it is correct. My issue with this approach is several fold.

One, the approach utilized by Mr. Seelye is not consistent with the instructions clearly contained, in my mind, in the NARUC Manual. Furthermore, my view is that a weighted regression for purposes of the zero intercept is not the appropriate way to go and instead an unweighted regression ought to be utilized. But, certainly, I have no problem with the econometrics that are contained in Mr. Seelye's rebuttal testimony.

MR. WATT:

I don't have any further questions for Mr. Estomin. I have no further questions Your Honor.

VICE CHAIRMAN HOLMES:

Staff?

MR. WUETCHER:

Could we have just one minute.

CROSS EXAMINATION

BY MR. WUETCHER:

Q In your opinion, how valid is the theory underlying the zero intercept methodology; that is, that a single variable linear relationship between unit cost of mains, in dollars per foot, and the gas flow capability of a pipe which is proportionate to its diameter?

A I'm sorry, can you please repeat the question again?

Q I was afraid you were going to ask me that. In your opinion, how valid is the theory underlying the zero intercept methodology; that is, a single variable linear relationship between the unit cost of mains, in dollars per foot, and the gas flow capability of a pipe which is proportionate to its diameter?

A If the question is is the--in one sense, it is a pretty straight forward underlying theory on this. And that is, you have the cost of pipe and that is going to be related to some measure of the size of the pipe. In this particular instance, however, what also needs to be considered, in part, is the quality of the underlying data used to make the estimation, which, frankly, I don't believe any economist would feel comfortable in using. These are data of book cost that span decades. There is no adjustment for inflation, the costs are very much apples and oranges.

Q Do you think it would be better if it was modeled as a multi-variant equation?

A If you question is whether this model, as specified, and the general proposition is misspecified, I'd have to say yes, it is. If we look at the data, for example, we notice that there are pipes of plastic and also of steel, at a minimum one could make, I think, a very good argument that at least there ought to be a dummy variable included in there to represent whether the pipe is steel or plastic. Frankly, for this type of analysis one what--what one would do with the resulting coefficient after applying that dummy variable I'm not sure, or how that would be incorporated into the results to be used by this Commission. So, I think there are certainly some other variables that could go a long way, perhaps, in improving the equation from a specification standpoint. Again, there is also, as I mentioned before, the time component associated with the underlying data themselves.

Q In performing your analysis, was there a check of heteroskedasticity, and let me spell that out again, because I'm having a hard time pronouncing it, h-e-t-e-r-o-s-k-e-d-a-s-t-i-c-i-t-y?

MR. WATT:

There is some heteroskedasticity in the air around here today.

A Yes, I--as part of my initial analysis on this and provided to the company in response to a data request, I performed what is referred to as a white heteroskedasticity test which is basically a general test of the present of heteroskedasticity. The results of that test indicated that there was no evidence of heteroskedasticity. Subsequent to that, in the last several days, I ran some additional tests, actually, about 12 additional tests, including a forecast, a Glejser test, several variations of that, and Goldfeld-Quandt test for heteroskedasticity and none of those indicated the presences of heteroskedasticity.

Q We'd like to have copies of all your test results, but if I could, since I think it had previously been agreed that Commission staff would be permitted to submit written questions to both sides on some of the more technical issues regarding the cost of service studies, we will simply make that request when we tender our written questions to the parties on Monday.

MR. WATT:

I think we could breeze through something real simple like heteroskedasticity pretty easily here.

MR. WUETCHER:

That's fine, which is precisely why Commission Staff counsel preferred to do it by written questions.

CHAIRMAN HELTON:

Maybe we should just coin an acronym for this phrase as we do in all the other utility industries for all of these things?

MR. WUETCHER:

Well, fortunately for me anyway, I think that is the last time I have to mention that term today.

Q In Exhibit 1 of your testimony, several pages display the unweighted statistics of regression equation results. And, in fact, on pages one, two, four and five the R square is negative, which does not accord to economic theory and is an indication that there is a serious problem. Given this answer, the following, "What were the equations that produced the negative R square values and what is the purpose for inclusions in the exhibit?" And let me ask if it--if you are required to produce those equations if you would prefer to wait and do that in response to our written questions? We can defer that in order to save time, would you prefer--

A I would prefer to do that.

Q What results are obtained when the minimum investment method is used to allocate demand and customer charges?

A The minimum investment method?

Q Method, or minimum system method?

A I don't know, I'm generally familiar with that but I don't believe those results have been presented here.

MR. WUETCHER:

That's all we have, thank you.

MR. WATT:

I have a couple more questions.

CHAIRMAN HELTON:

Did you have any?

MS. BLACKFORD:

No.

RECROSS EXAMINATION

BY MR. WATT:

Q Mr. Wuetcher asked you a few questions about the zero intercept method, maybe just one question. You are aware, aren't you, Mr. Estomin, that in Delta's last rate case, Number 97-066, this Commission explicitly stated their preference for the use of the zero intercept method?

A That's my understanding, yes.

Q Did your ordinary least squares take into

consideration the time element of the cost?
A No, it did not.
MR. WATT;
That's all I have, thank you.
CHAIRMAN HELTON:
Mr. Wuetcher, do you have anything else?
MR. WUETCHER:
I have no follow up, gratefully.
CHAIRMAN HELTON:
You're excused.
MS. BLACKFORD:
Carl Weaver, please.
(WITNESS DULY SWORN)

The witness, CARL WEAVER, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MS. BLACKFORD:
Q Dr. Weaver, would you please state your full name and business address for the record please?
A Yes, my name is Carl Weaver, my address is 4713 Wengers Mill Road, Linville, Virginia 22834.
Q Are you the same Carl Weaver who caused to be filed on behalf of the Attorney General testimony

and exhibits in Case Number 99-046 on July 30 of this year?

A Yes, I am.

Q And are you the same Carl Weaver who caused to be filed testimony and exhibits on behalf of the Attorney General in Case Number 99-176 on September 23 of this year?

A Yes, I am.

Q Do you have corrections or amendments that you need to make to either of those testimonies?

A Yes, I do. Let's do the 99-046 filed on July 30. This will be outside of the packet that was sent with the filing of the 99-176, where we had--I sent some replacement pages. In 99-046, page 17, page 17, line two, midway down the line, "Delta uses a 60"--and I have "64.4" that should be "65.4." Also, on the next page, page 18, line 21, which is not numbered, it is the bottom line, the beginning of the last sentence that starts on that page, for the "five" companies, change the "nine" to "five" please. Over two pages to page 20, line 12, please change the "9" to

"5." And, also, up on line seven on page 20, "9" to "5." One more of those on the next page, line two, midway down the line, "9" to "5." Now, if we please turn to the 99-176 filed on September 23, okay, on line 22--

MR. WATT:

Page 22.

A --Excuse me, page five, line 22, the "8.8 to 10.9" should be "9.5 to 10.8." And then in the back of that testimony the replacement pages that I sent, on page 37 at line 15, the "10.82" should be "10.92." That completes the corrections.

Q With those amendments and corrections, were I to ask you the questions posed in these testimonies, would you answers be the same today?

A Yes, they would.

MR. BLACKFORD:

I move the testimonies into the record and hold the witness available for cross.

CHAIRMAN HELTON:

So ordered. Mr. Watt.

MR. WATT:
Thank you, Your Honor.

CROSS EXAMINATION

BY MR. WATT:

Q Good afternoon.

A Good afternoon.

Q Is it true that the return on equity for the five companies in the panel of companies that you utilize in your testimony would average from 9.75% to 10.75%?

A The 9.75 to 10.75 is the result after the adjustment that I made for Delta. I increased the range that I found--and it is not an average, per se. The determination of the cost of equity in the final analysis is always a judgement decision. You use the various models to obtain information about what capital market participants are thinking about the cost of equity. The cost of equity is determined in the capital market, not by me, I'm just trying to see what the capital market reflects. And so, I used these models to obtain as much information as I can and,

then, on the basis of that information you
make a judgment decision.
Q Dr. Weaver, could you please turn to page 38 of your rate case testimony, line 15, and really line 16 as well. It appears to me from your testimony on line 15 that the equity for the five companies themselves would average 9.75 to 10.75 and thereafter you made the adjustment for Delta. Did I interpret that correctly?
A You are correct, I misspoke, the 9.75 was a decision made on the basis of the data that I examined to be the cost of equity for the five companies and the 10.25 to 11.25 is for Delta.
Q Would you turn to page 24 of your testimony in the Alt Reg Case? Just briefly, you state at lines 13 and 14 that Delta is similar to the five companies in your panel, don't you?
A Yes. And is similar in respect to the things that I examined and it was as close as I could find, of the 23 companies carried by <u>Value Line,</u> to Delta.
Q In the process of sampling things to determine similarities you are, I'm sure,

familiar with the concept of bracketing, aren't you?
A Yes.
Q Which means that some of the samples are higher and some are lower, right?
A Certainly.
Q Do the members of your panel bracket Delta?
A No, not entirely. In size, for example, the companies tend to be larger than Delta. What these companies are, companies that are closest as I could find to Delta given the criteria that I examined. The majority of them are larger than Delta, they have more equity in the capital structure, and there are differences from Delta.
Q Well, let's look at that briefly, if you would, Dr. Weaver. You sampled on the basis of the following criteria, didn't you? You total asset size?
A Yes.
Q Net sales to total assets?
A Yes.
Q Common equity ratio?
A Yes.

Q Total liabilities to total assets?
A That's one of them, yeah.
Q Debt to equity ratios?
A No, the growth and total assets, which was the second one and you left that out.
Q Sales to fixed asset ratios?
A Yes. No, no, no, you left out the growth and assets, you mentioned the sales to fixed assets.
Q Okay, fair enough, I apologize. Are there any of the five companies smaller than Delta with regard to total assets?
A No.
Q As a matter of fact, the closest one is over three times larger than Delta, isn't it?
A Over three times?
Q That's my recollection. Look at your schedule one if you would please?
A Cascade is next smallest company, yes it is 102,000 versus 311,000, yes.
Q Are any of the five companies smaller than Delta with regard to the ratio of net sales to total assets?
A No.

Q Do any of the five companies have a lower equity ratio than Delta?
A No.
Q Do any of the five companies have a higher 1996 to `98 average ratio of total liabilities to total assets than Delta? I know there is one equal, but I don't think there is any higher, right?
A Right.
Q Do any of the five companies have a lower S&P relative strength rank than Delta?
A No. Let me check that. As I indicated earlier, these companies are as close to Delta as I could find in the list of the 23 companies followed by Value Line.
Q Is it fair to say, then, that you agree with Dr. Blake's testimony yesterday that there aren't any companies similar to Delta for comparability purposes?
A I don't think there are any two companies that are clones of each other irrespective of size, irrespective of sales to total assets or any of the criteria. What you have to do is find the closest to you can find and then

use that to sample your data in the cost of capital determination. In the cost of capital your Bluefield and Hope is an important consideration and to consider similar companies that have comparable risks. This criteria examines that risk so it is important to examine criteria on these companies to find similar companies. Or companies that are as close as you can find as possible, which this is the better descriptor of what happened here.

Q When you have a situation like the one that exits with Delta in your panel, where they really aren't similar, there is no bracket at all, there is no above and below, all of your panel companies have better performance indicators than Delta; isn't that right?

A No, not necessarily. On cash flow analysis, for example, which I consider to be extremely important, Delta had the best cash flow coverage of earnings.

Q What was in your cash flow calculation?

A Cash flow, I used the FASB `95 calculation of cash flow and used cash flow from operating activities which is included as using the indirect methods where it is net income plus depreciation, plus or minus all changes in current liabilities and current assets except cash and notes. And that would be cash flow from operating activates, and then divide that to get the cash flow coverage of net income by net income, and get the number of times coverage. And in this case we see that Delta's quality of earnings measures 3.62 times, that is a two year average. The panel companies averaged 1.96 times. So, Delta has much better quality.

Q Dr. Weaver, you did not use the standard times interest earned measures that are used by analysts, did you?

A Yes. This is an analyst measure for cash flow coverages from the FASB `95 statement. Certainly, that is why the accounting profession produces it is for analysts to examine it.

Q When you have a situation, going back to the take off point, when you have a situation in which your panel of companies is not similar to the subject company, isn't it necessary to make, if you will, after the fact adjustments to try to put them on the same footing or to make them more comparable?

A Well, as I say, it is a judgement call and in this case I did, I added 50 basis points to the determined results for the panel of companies to allow for that factor.

Q Do you still agree that that 50 additional basis points is appropriate for Delta?

A Yes, I do.

Q Isn't this a somewhat subjective assessment of risks when you added that on?

A Somewhat subjective, yes. But we can even back into it using the 15 basis points per percentage point difference in equity criteria. When we look at equity to total assets of Delta versus equity to total assets of the panel companies, equity--the panel of companies has 3.1% more equity than does Delta. That is 3.1 percentage points, not percent. So, if I take my 3.1 percentage points times the 15 basis points, that is a 45 basis point adjustment. So, even though it was subjective, the criteria works in any number of ways.

Q Well, will you please turn to your response to Delta's Data Request, Item 27?

A Yes.

Q Now, there you were talking about risk reduction that result from implementation of the ARP; correct?

A Yes.

Q And then you say that the assessment was subjective?

A Yes.

Q But now you are saying that it is more than subjective?

A No, this refers to the ARP.

Q Is it different risk?

A Yes.

Q You mean risk is a different subject if you are talking about ARP than if you are talking about no ARP?

A Absolutely.

Q Oh, I see.

A The--my recommendation was if the ARP is not adopted, if the ARP was adopted the range that I would recommend because Delta would be more like a bond, the range would be from 8% to 9%, in my opinion.

Q Did you account for the substantial difference in the size between Delta and the five companies on your panel when you determined Delta's return on equity?

A I acknowledge there was a difference in size, and there is a substantial difference in size, I will agree with that. It is my belief that that does not have a great effect on the risk of the company once they achieve a certain size, have stock outstanding, they are publicly traded, carried on NASDAQ so that you get wide dissemination of information about the company, they are in the Value Line expanded edition, not in the normal edition but in the expanded edition carried, so there is wide dissemination. I think with the information revolution that we are having today size is less of a factor in determining risk of companies.

Q You mentioned a moment ago that Delta is traded on the NASDAQ; correct?

A Yes.

Q Your five companies are New York Stock Exchange companies, aren't they?

A Yes.

Q Did you hear Mr. Jennings testify yesterday about the difficulties that he has had trying to interest underwriters in placing equity securities for the company?

A I heard him testify to that effect, yes. But, and I found it sort of curious in a way, the company--but it is mainly through a dividend reinvestment plan and through ESOP plan, the number of shares of outstanding in this company have increased every year from 1991 through 1998. The book value of the shares, the total book value, so when we not look at just retained earnings but look at the common equity, plus paid-in capital, plus retained earnings, that value has increased every year but in 1998. So, all but one year in 1991 through 1998. So, yes, the company has had financial problems, I will agree there, and I think they are risky and I think they need a rate increase. And I'm sure that the company has had trouble with large issues of common stock, but the fact is the common stock outstanding has been growing, the total common equity has been growing, and I feel like that point was a little bit over emphasized maybe. I don't feel it is as dire--my belief is it is not as dire as it sounded.

Q When the common stock grows, when the common equity grows, when the number of shares outstanding are growing, doesn't that mean that it takes more money annually to cover a dividend?

A Oh, absolutely.

Q And I believe that you are firmly in the camp that stands for the proposition that a company cannot go on and not earn its dividend, aren't you?

A Yes.

Q And to the extent that Delta, through its drip or whatever means, is increasing the number of shares outstanding but has inadequate revenues to cover those dividends, it is exacerbated by things like increasing shares outstanding when it does not have a corresponding increase in the revenues necessary to cover those dividends; isn't that right?

A When that income is not increasing sufficiently, of interest here--and, again, it goes back to the cash flow and quality of earnings, though. Of the panel of companies Delta had the best cash flow coverage of dividends of all five companies.

Q Going back to your panel and when you came up with Delta's return on equity, did you account for the substantial difference in leverage between Delta and the five companies in your panel?

A I acknowledge that Delta has more leverage. As far as a return on equity, the return on equity measures what it is and if the panel has less leverage, and to the extent that leverage affects their return on equity, that would show up in any return comparison. So, in an indirect way, yes, that is an automatic occurrence.

Q Well, but you did not make an after the fact

adjustment that recognized that a substantial difference in leverage between Delta and the five panel companies, did you?
A Oh, yes, I added 50 basis points to my overall results to account for that difference.
Q Was that based on leverage?
A It is based on the difference in risk of which leverage is a major part.
Q Is it true that the higher a company's leverage is the more risky it is?
A Yes. But let's back up and let me explain that, too, though. The risk is not the fact that one company has more leverage or less leverage that type thing, the risk comes about because a company with more leverage is really using more debt and it has got more repayment obligations. And it is the cash repayment obligations and the ability to make those repayments and make any interest payments on that, meet sinking fund payments, that cause the risk. That's the source of the risk, and that is why when you look at risk differences look at the amount of total

equity to total assets or total liabilities and preferred stock to total assets, and that is where I got the 3.1% difference and found that Delta, yes, it is more risky, a little bit, but 3.1 percentage points more, not a great deal, in my opinion.

Q Dr. Weaver, did you account for the difference in risk resulting from three of your five panel companies having a weather normalization mechanism in place?

A That's reflected in the data and using market data will automatically account for that. It should be reflected in the prices, the dividend yields, and the DCF models and also in the capital asset price models that is reflected in the betas.

Q So, you did not make an after the fact adjustment for that; is that right?

A That's adjusted for in the--using capital market data automatically, so no adjustment is required.

Q Would you please refer to your response to Delta Data Request, Item 28?

A I have it.

Q There you say that--and this, again, addresses our panel companies--that CTG resources has weather normalization insurance; correct?

A Yes.

Q Energen has a rate stabilization and equalization mechanism; correct?

A Yes, that is Alabama Gas, Energen is the parent holding company.

Q And it is included as those that has a weather normalization?

A Uh-huh, yes.

Q South Jersey Industry has a temperature adjustment clause; correct?

A That's correct.

Q Now, could you please explain to the Commission how each of these mechanisms work?

A No, I couldn't.

Q So, you don't really know whether or not any of them are like Delta's Alt Reg Plan except, possibly, the Energen one, right?

A Well, even the Energen one appears to be different in many parts and many points.

Q Do you think these three mechanisms would have the affect of reducing the variability in revenues and earned returns for these three companies?

A Oh, absolutely. For example, Energen, the Standard & Poor's stock report indicated that Alabama Gas ROE has been constant over the prior ten years. The problem that Energen and the stock market has, and the reason the market reflects its higher risk is that Energen has an exploration and development subsidiary. And they have been growing that and so, the port folio effect of the high risk venture and exploration and development of oil reserves and gas reserves has been offset by the mitigating circumstances of the company, so that the portfolio effect on the dividend yield and price of the stock has made it look like every other gas company.

Q Since the three mechanisms result in a reduction in the variability of earned returns for these companies, would it be fair to say that the majority of your five company panel have in place a mechanism that reduces the variability of their revenues and earned income and that Delta does not have such a mechanism in place?

A I'll agree that Delta does not have a mechanism in place. The New Jersey mechanism, according to Value Line write up, has not been successful but it is being changed. Prior to that write up it was changed, I think, in 1998, in that calendar year, to try to make it work better. So, with that exception, yes, they should be more stable.

Q How did you quantify the difference in risk between Delta and your five company panel that results from the majority of the panel having in place a mechanism that reduces the variability of their revenues and earned returns?

A I quantified the risk looking at the cash flow coverages. I looked at the published risk measures from Value Line and Standard & Poor's. I looked at the other standard risk measures that we have discussed here.

Q Did you take into account any place in your determination of Delta's return on equity the additional risk factor that Delta has over

the majority of your panel by virtue of
Delta's not having in place these
stabilization plans that the majority has?
A No, I did not. There is a very good reason
for that and I explain this pretty carefully
back in the appendix to my testimony where I
explained that it is total risk that is
important to the company because that is what
the market faces, not the risk from any one
source because the companies are different.
And the companies in a panel or in a group
will have risks from sources that are
different from the other companies, but it is
the total risk that must be considered. So,
in this case we look at measures of total
risk to account for risk differences.
Q Given what you just said, Dr. Weaver, why is
it you are recommending such a large
reduction in Delta's return on equity by
virtue of the Commission's adoption of its
Alt Reg Plan?
A Like I mentioned earlier, the Alt Reg Plan,
while it doesn't 100% guarantee the rate of
return will be earned because you have a band

about the authorized rate of return and you do have inflation caps on expenses and things, it pretty much comes close to guaranteeing the return will be earned. With that in mind, then, Delta's stock will be more like a bond than as shares of common stock. Its risk will be greatly reduced and, therefore, its return should be lower because it has much lower risk. In 1998 Delta issued a bond and the yield on that bond at issue, this is yield after price discount and issuing expenses, was 7.6%. So, and that bond also reflects Delta's risk because it is an obligation of Delta's. That was a big factor in causing the 8% to 9% recommendation.

Q I've almost forgotten where I was with your digressions, Dr. Weaver,--

A I'm sorry.

Q --but let me see if I can get back on track here. The five company panel, three of which have some sort of stabilization mechanism, have an average return on equity of 9.75 to 10.75; right?

A Cost of equity, right.

Q I think we established that earlier. Now, you say however that if Delta gets one of these plans, that is, it's Alt Reg Plan, the equity ought to be reduced to 8% to 9%; is that right?

A That's correct.

Q Now, Alagasco, which is one of the panels, one of the companies on your panel, has the rate stabilization and equalization plan and a weather norm plan; correct?

A The--as I indicated earlier, I haven't studied their plans, but my guess is, you know, that if you have the Alt Reg Plan you don't need a weather normalization, that is taken care of in the plan. But its earnings have been stable, yes.

Q Dr. Weaver, you know that the range that the Alabama Commission has approved for Alagasco's return on equity is 13.15 on the low side to 13.65 on the high side with a mid point of 13.4%; you know that, don't you?

A I have heard that here. I have not seen the order or I have not done a cost of capital analysis of Alagasco. I have no idea why they are allowing that return.

Q You quoted Bluefield in your direct testimony and you just mentioned it a moment ago.

A Yes.

Q And if you look on page six of your Alt Reg testimony you say--and this is about in the middle of the quote from Bluefield--"The return to the equity owner should be commensurate with the return on investments and other enterprises having corresponding risks," do you see that famous sentence out of Bluefield?

A Yes.

Q We have all read it a million times, haven't we?

A And written it a million times when you do this.

Q Shouldn't Delta's return, with the use of the Alt Reg Plan and weather normalization, therefore be commiserate with Alagasco's return of 13.15 to 13.65%, applying Bluefield?

A Well, as I indicated, Alagasco is one of the subsidiary companies in Energen. They also have an exploration and development subsidiary that mitigates that risk affect considerably. And, therefore, their cost of equity, it might be high, the reason for the 13.1 is they did a market evaluation of the cost of equity and found that they were high risk due to the business activity of the exploration and development subsidiary.

Q Well, now, the exploration and development subsidiary is not relevant--regulated by the Alabama Commission, is it?

A It shouldn't be but they could have been taken into consideration, may not have been, I don't know what was considered when they found that 13.1%.

Q Well, you just don't--in your Alt Reg testimony on page 22, that is where you talk about the S&P beta for Delta of 0.02; right?

A Right.

Q You have a familiarity with statistical methods, don't you?

A Yes.

Q Do you know how the beta is reported in _Value Line_ and the _S&P_ reports are estimated?

A Sure. The--both companies have a similar method in that both Value Line and S&P use the prior five years of data. Value Line uses weekly closing prices, Standard and Poor's uses monthly closing prices. So, Standard and Poor's has a few less observations than Value Line. Value Line runs a regression on using the independent variables of the New York stock exchange index for similar observations, Standard & Poor's uses the, believe or not, S&P 500 for their index. Standard & Poor's does an adjustment to their results--excuse me, I've got it backwards. Value Line does an adjustment, abasion statistical adjustment, to their final results, whereas, Value Line(sic) reports the raw regression coefficient. So, .02 would be a raw regression coefficient done by Standard & Poor's prior five years data, monthly prices.
Q If a--well--a linear regression algorithm from a standard statistical package such as SAS, SPSS, or TSP will produce parameter estimates even if there is no underlying

linear relationship, isn't that right?

A Sure. That's why you test to see if it significantly different from zero, that type of thing.

Q Uh-huh. And if a linear regression were applied to a random set of data involving two variables with X as the independent variable and Y as the dependent variable, wouldn't the parameter estimate associated with the X variable be zero?

A It may not be since they--it depends on the size of the set. If it is truly a random data set for both variables and you've got a large enough sample, yes, it should. You get smaller samples you may get some bias one way or the other and not hit--you should have a number close to zero, though.

Q If there were an upward or downward slope there would be some underlying pattern to the data, right?

A Right.

Q And that is why the null hypothesis of B equals zero is used in T-tests for assessing the goodness of fit for parameter estimates?

A The--no, that's to whether or not you have a relationship rather than goodness of fit. You test to see whether there is any slope or not, if B is equal to zero, you know, is not significantly different from zero, then you don't have a relationship.
Q Would you regard 0.02 as being close to zero?
A Oh, I sure would. That's why when I did my CAPM analysis I just used the beta from my panel of five companies and did not use beta, this particular beta, because it is ridiculously low and I doubt a relationship does exist.
Q For once you got to the bottom line of my question before I did, Doctor.
A Sorry.
Q Thank you, sir.
A I should do it more often.
Q You know, don't you, that the return that you are recommending for Delta, if it adopts the Alt Reg Plan, is not going to be sufficient to cover its dividend?
A I haven't done a study on whether it would not.

Q Well, let's see if we can walk through some numbers to see whether or not you agree with our assessment of that conclusion.
A Sure.
Q Subject to check, would you agree that Delta had 2,394,633 shares of common outstanding at the end of the test year?
A Yes.
Q Would you agree that Delta paid an annual dividend of $1.14--
A Yes.
Q --for the test year? At a dividend of $1.14 I think the arithmetic shows that it is going to require $2,729,882 of earnings to pay everybody their dividend, would you accept that?
A Sure.
Q At the end of the test year Delta had an equity component of 28,351,812; correct?
A That sounds true.
Q Now, if you divide the total dividends of 2,729,882 by the test year end equity of 28,394,633--
A You need to go the other way, we are dividing

net income into the number of shares. We need to divide the number of shares into the earnings.

Q What I'm doing is I'm dividing the equity into the amount required to pay the dividend.

A Oh, to get the equity per share, you are going down to a per share on that, okay.

Q And that comes up with 9.6%; correct?

A I'll accept that.

Q And you are recommending a dividend--excuse me--a rate of return of 8% to 9%, right?

A Yes.

Q I think you said earlier that no company can continue and not earn their dividend; didn't you?

A I did say that and will continue to say that.

Q You agree, don't you, that lower earnings result in a higher cost of equity and in higher risk?

A Depends on the risk of those earnings. Lower earnings on treasury bills, and treasury bills are riskless investments. And there is a risk return trade off, the higher the risk, the higher the earnings; the lower the risk, the lower the earnings. So, the risk return line is upward sloping to the right, that is why if an Alt Reg is adopted Delta will have--it has much less risk, consequently, it should have a much lower cost of equity.

Q Dr. Weaver, the last time I cross-examined you was in 1997, the last time Delta was here for its rate case, and the hearing was held on September 9, 1997, and I asked you this question and see if you remember giving this answer. "I take it the converse of your statement at lines 15 through 17 is also true; that is, that lower earnings result in a higher cost of equity and in a higher risk; correct?" Answer: "Sure." We didn't get the qualification there; correct?

A Yes. The qualification--I mean, I still agree that if a company stays in the same risk class, if risk doesn't change, if the company persists in having lower earnings and higher risk it is going to affect the cost of equity so, yes, I'll stand behind that statement also.

Q There were some suggestions in some of the answers to data requests submitted by the

Attorney General's witnesses that the leverage that Delta finds itself with, or its capital structure, if you will, is somehow a matter of choice. You have seen that haven't you?

A Oh, I think I was one of the people that made those kinds of comments, yes.

Q Don't you agree that it is not logical to conclude that Delta would choose to let is equity erode to the level at which it is currently situated?

A In a rate case it certainly wouldn't.

Q Well, in real life it wouldn't either, would it, Dr. Weaver?

A I think they should take steps--I questioned, for example, in my testimony why the dividend was increased when it was, when the equity was eroding. Things of that nature, management in other companies when they get into a drastic situation have even been known to cut a dividend, which is really a drastic action, and that increases capital cost rates tremendously. But it can happen and it preserves that equity cushion against risk.

Q Don't you agree that Delta's stated desire to increase its return on equity and sell more stock does not indicate that it wants to reduce its equity and increase its debt?
A I'm sorry, could you repeat the question?
Q Sure.
A It didn't--it kind of went over my head.
Q Well, Delta is here asking this Commission to approve a higher return on equity so that it can go out and sell more stock. You heard Mr. Jennings say that, didn't you?
A I heard him say that they needed a higher return on equity. I'm not sure I heard the "so that they could go out and sell more stock." I did not know an equity sale was imminent after this case. In fact, Mr. Hall, one of the reasons I made the flotation cost adjustment I did was Mr. Hall, in his testimony, stated that there are no plans for any capital market issues through 2001, I believe, or 2000 maybe. But he indicated the company has no plans for new capital market issues.
Q Rather than debate you about what we recall

of Mr. Jennings' testimony, just take it from me the company would like to be able to sell equity so that it can improve its capital structure, if that is the case, Dr. Weaver?

A Oh, and I'm sure--

Q Wouldn't you agree that it is not logical to conclude with that desire that it wants a highly leveraged capital structure like it currently has? That it is not a matter of choice?

A I'm not following the question. If they are to have a new equity sale they would need rate relief prior to that. Does that provide a response?

Q Not really, but I'm not sure that I want to go much further with it Dr. Weaver. You have worn me out, to tell you the truth.

CHAIRMAN HELTON:

Mr. Watt, unless you are really close to concluding with this witness we are going to take our break now.

MR. WATT:

I'll probably have another 15--10 or 15 minutes, so we probably ought to.

CHAIRMAN HELTON:

Yes, I think we need to take a break.

(OFF THE RECORD)

CHAIRMAN HELTON:

Mr. Watt, continue.

Q Dr. Weaver, in your response to Delta's Data Request, Item 22, you said that you had recommended the use of a hypothetical capital structure in situations where the applicant's capital structure was different from a typical capital structure for an industry; remember that?

A Yes.

Q When you made that statement, did you intend to use the phrase hypothetical capital structure as about the same as imputed capital structure?

A No. What--and I'm fuzzy on it, this was when I was with the Virginia Commission, head of the Economic Research and Development Division, and in several cases, at least one case, I know I recommended using a consolidated capital structure for a subsidiary rather than the subsidiary capital structure. And I may have done that, I think

I--I think I did it in an Appalachian Power Case, I'm not positive. I also think it could have happened in a Virginia Carolina Telephone Case that I testified in. It was--I think I did a few times but I can't remember the specifics.

Q Well--

A But in every case it would have been a consolidated company capital structure when a subsidiary was in for a rate case.

Q You might ought have lost track of my question there. What I was trying to find out was whether or not you used the term hypothetical capital structure either to be equal to or to include the term imputed capital structure?

A No, I interpreted it as something other than the actual capital structure. And the only time I've done testimony it has either been the actual capital structure or the consolidated capital structure, and I use hypothetical and impute in the same way, yes, if that is the question.

Q That was the question, yes. Delta's equity component of about 30% is much smaller than the 46% plus or minus average--

A That's total capitalization, what the market really is concerned with is total assets because--

CHAIRMAN HELTON:

Mr. Weaver, I don't believe he finished his question.

A Oh, excuse me.

MR. WATT:

Thank you, Your Honor.

A I'm sorry, I apologize.

Q Delta's equity component of about 30% is much smaller than the approximate 46% average of your panel of five companies; correct?

A I disagree.

Q Well, that's about what the numbers are, isn't it?

A That's equity to total capital as opposed to equity to total assets. And the difference between equity and total assets is the liabilities which have the repayment obligation. That's the source of risk.

Q Don't you agree, Dr. Weaver, that Delta is

different from your so-called comparable companies in your panel?
A Yes.
Q And in that situation you fall into the circumstance, which you described in answer to Item 22, that a hypothetical capital structure might be different if the company's capital structure was different from a typical capital structure for an industry; isn't that right?
A Yes.
Q In response to Delta's Data Request, Item 31, you were kind enough to submit to us a copy of the article which you wrote for Public Utilities Fortnightly in the September 4, 1986, issue; do you remember that?
A Yes.
Q In the summary portion of that article on page 23 you wrote: "If a utility company fails to maintain the leverage component in its capital structure, hypothetical capital structures might be imposed in regulatory proceedings." Isn't that right?
A That's correct.

Q You also said in that article at the bottom of page 22, going over to page 23: "Increased dividend payment amounts will stimulate the demand for utility common stocks and result in higher market price to book value ratios. This will serve to reduce the cost of equity capital. In addition, it should make equity financing easier to accomplish in the future." You wrote that, didn't you?
A Yes.
Q You believe that that is true, don't you?
A Yes.
Q I want to ask you a question or two on this cash flow analysis that you did that you talked about just right before we broke; you remember that? You are aware, aren't you, that when you perform the cash flow analysis under FASB `95 or `96, whichever it is, you can include short-term debt in that?
A Short-term is a financing activity. That's included down in cash flow from financing activities.
Q Wasn't short-term debt included in the cash flow that you utilized to come up with the

numbers that you used?
A Oh, for cash flow coverage of interest?
Q Yes.
A To get cash flow from operating activities, before the interest payment, you add the interest back and then divide by interest so that you get a cash flow from operating activity before interest, divided by interest, it gives you a true coverage.
Q The cash flow that you utilized included Delta's short-term debt, didn't it? That is advances from its short-term line of debt?
A The cash flow from operating activities that I used was a cash flow constructed by the indirect method and it include--it excluded the change in short-term debt. The change in short-debt is a financing activity, and there are three categories on the cash flow statement, cash flow from operating activities, cash flow for investing activities and cash flow from financing activities. Debt is a financing activity, the cash flow I use is cash flow from operating activities.

Q Is it your testimony today that when you perform the cash flow analysis that you described earlier and that you have described in your direct testimony that there were no funds resulting from Delta's short-term line of credit included in that cash flow? Is that what your testimony is Dr. Weaver?

A Cash flow from operating activities excludes short-term debt changes, that is my testimony.

Q Okay. Let me ask you about your cash flow analysis, the one you did for Delta in this case. Is it your testimony that there were no funds from Delta's short-term line of credit included in the cash flow that you utilized in that calculation?

A To my knowledge, there is not.

Q If there had been, then any sort of positive that you would attribute to the short-term numbers, the good short-term coverage you were talking about, would really be a negative because it would be racing more rapidly toward the need to finance to take that short-term debt out; correct?

A The good coverage is wherein cash flow coverage of net income, which is a quality of earnings measure, and cash flow coverage of dividends, in both of those cases you leave interest expense out and interest should not be included.
Q Dr. Weaver, you know how we asked you about how you did this analysis in the data request, and I apologize because I don't remember which one, but you gave an answer that said that the analysis, you didn't have any work papers, but the analysis was on a Lotus spread sheet, it is Item 36 if you would turn to it.
A I have it.
Q You see the last sentence of your response, the cash flow schedules were done on Lotus spread sheets?
A Yes.
Q But you didn't send us either a disk or the spread sheets when we asked you to give us work papers on that, did you?
A No, I didn't have any physical pieces of paper or anything.

Q What happened to the Lotus spread sheet?
A I have in a file somewhere, I do have the Lotus spread sheets.
Q Okay. But you didn't send those to us right?
A No.
Q I guess they probably would have shown what the elements of your cash flow analysis were, wouldn't they?
A No, I took the--simply I took the company's cash flow statement and copied cash flow from operating activities as reported by the company, as the cash flow that you would see, for example, on--for Delta, for example, it would be in Schedule 13. And Schedule 13 you see cash flow from operating activities for 1997, 1998--
Q Which testimony?
A Huh--that would be the 99-046.
Q Which schedule?
A Schedule 13. And that is taken straight off of the company's statement. I didn't go back and reconstruct it because it was already there.
Q The third line down on your Schedule 13.

A That's cash flow from financing activity.

Q Uh-huh. You used that in your cash flow analysis?

A No, I as I indicated in my direct testimony what the numerators and denominators are for these coverage ratios. Cash flow coverage of interest is cash flow from operating activities, which is the first line, plus interest, divided by interest. Cash flow coverage of dividends, this is cash flow from operating activities divided by total dividend. Cash flow coverage of investing activities is cash flow coverage of operating activities divided by total cash flow from investing activities, and you usually do a sign change, make it a minus sign because investment activities are cash outflow. So, it appears as a negative number. Quality of earnings is cash flow from operating activities divided by earning--total earnings available for common which is normally what is net income.

Q Going back to your Lotus spread sheet.

A Yes.

Q I guess you could have printed that, couldn't you?
A Sure.
Q Or you could have sent the disk?
A I didn't think it was necessary because this is what it was. The only thing the Lotus did was it did the division.
Q When you first--in fact, it is part of your direct examination, I guess, you did some corrections to your direct testimony; remember that?
A Yes.
Q Where you changed the reference to the nine companies to five?
A Uh-huh.
Q I assume the five were your five company panel; is that right?
A That's right.
Q If you would just go ahead and turn to page 20 of your testimony.
A The 046?
Q I think that is 046, I think you only changed that to about what, 25 or so, right?
A Uh-huh, 046. I have it.

Q At lines 19 and 20 I believe you state Delta's coverage measured 3.62 times while the coverage measure for the nine, changed to five, averages 1.96 times, right?
A That's correct.
Q Then you went on to say in lines 11 to 13 Delta with a lower coverage has a greater likelihood of having to perform external equity financing than the nine, changed to five, companies; did I read that right?
A Yes.
Q With Delta having a greater likelihood of having to perform external equity financing, won't Delta have a difficult time placing this additional equity since it has not generated sufficient earnings to cover its dividend in four of the last five years?
A Yes.
Q You heard Dr. Blake yesterday when he testified about Delta having a problem getting a financial institution to offer--to purchase their equity; remember that?
A Yes.
Q Do you have any suggestions about how or

where Delta could place additional equity?

A Well, while he was stating that I noticed they have a--what appears to be--have been an equity issue in 1997 when the number of shares outstanding went from 1,900,000 up to 2,340,000, according to this source. I would say the same source, if possible.

Q Well, do you remember when Mr. Jennings was testifying about that, that was Edward D. Jones, and he said Edward D. Jones is not interested given the state of the earnings.

A I don't believe he mentioned by name.

Q I think that is who it was and I think that is what he said, so given the fact that Delta's earnings has caused Edward D. Jones to have a lack of interest, do you have any other suggestions?

A The only suggestion I would have is contact investment bankers, they make their living by being the intermediary between companies and the capital market, and in a competitive market like we have I would feel certain there would be companies out there that would accept the business. They may require a higher cost rate, it may require additional flotation costs, and it may require additional under pricing that occurs, but they are out there.

Q Would you please turn to page 38 of your Alt Reg testimony?

A I have it.

Q Specifically, line five, you found that the five companies in your panel were less risky than Delta, you see that testimony, don't you?

A Yes.

Q Since Delta is riskier than those companies-- well, let me back up a second. Isn't it correct that when you were doing your CAPM analysis you used the beta for those five companies as opposed to the beta for Delta or for something else?

A That's correct.

Q Since Delta is riskier than those companies, wouldn't it be appropriate to use a higher beta than the .6 for those companies?

A Not necessarily, because here I'm talking about total risk not systematic risk. Beta is a measure of systematic risk; that is, the change in stock price relative to the change in the market. And we saw from the previously discussed beta co-efficient that in a regression analysis it showed that Delta's price movement is almost independent of the market. That would tend to indicate that it has very little systematic risk, so from that perspective Delta perhaps has less systematic risk, which is the risk that has the risk premium associated with it than does the five companies.

Q Instead of doing a CAPM analysis for the five companies, why didn't you do one for just Delta using this beta that you told us about yesterday from Value Line?

A I looked at the five companies, I used the panel of five companies in the DCF analysis, I used them in the CAPM analysis and I also used them in the bond yield risk premium analysis as the primary source. Delta's return should be similar to companies that have comparable risk. It is required that you look at similar companies, and as similar

as you can make them, and then I adjusted for my perceived difference in the risk level.
Q You said in your original direct testimony ,I think it was in the Alt Reg case on page 22, Delta is not covered by Value Line; remember that testimony?
A In their primary series they are not. Delta is covered in the extended series of coverage.
Q Do you remember when Delta requested you in a data request, I think it is Item 37, to send all the documents that you had containing or reflecting data--Delta's beta?
A And I did not have this document at that time.
Q When did you get it?
A I got it on Wednesday morning before I came up here.
Q Did the document not exist before Wednesday or you just hadn't found it before Wednesday?
A It existed but I hadn't found it.

MR. WATT:

That's all the questions I have Your Honor. Thank you Dr. Weaver.

CROSS EXAMINATION

BY MR. WUETCHER:

Q Good afternoon Dr. Weaver.

A Good afternoon.

Q Do you accept Delta's proposed debt cost of 5.41% for short-term debt and 7.48% for long-term debt?

A Yes, I did.

Q Okay. Could you tell us what caused you to change your recommended debt cost?

A I did a yield maturity analysis on the long-term debt cost and actually my range came out a little higher than theirs, and if that is the request that they wish, I'll accept that lower request.

Q Based upon your revised Schedule 34 to your testimony filed on September 23, 1999, I believe that is the testimony in the rate adjustment case, is it correct to conclude that you are also accepting Delta's historical capital structure as adjusted? And I'm not referring now to their hypothetical capital structure but just their historical capital structure?

A Yes, I am.

Q Okay. Can you tell us why you changed your recommended capital structure?

A I'm not sure I did change the capital structure. Let me check.

Q Okay.

A The capital structure in Schedule 99-046 is a fiscal year end, September year end capital structure, and in the subsequent filing they made it a December 31 capital structure, so the structure changed.

Q Okay, thank you. What is your opinion of Dr. Blake's recommendation that the Commission use a hypothetical capital structure to determined the required rate of return?

A I recommend that it not be adopted.

Q Okay. Assume for the moment that the Commission didn't accept your recommendation and chose instead to use a hypothetical capital structure, what would you recommend in terms of required return on equity?

A As we increase the amount of equity in a capital structure, there will be a reduction in risk and some reduction in the amount of the cost of capital there. What capital structure was the Commission considering? I know I can't ask a question, if the Commission was considering, say, going to a 40% capital structure, I would recommend probably about a .75 to 1% reduction in the cost of equity. But I would--I'd like to, rather than answer from here, look at the capital asset pricing model risk premiums, look at the bond yield risk premiums to get information and see how that might be affected with the comparable companies or the similar companies that I have to--before I made a final number estimate of how that would affect the recommendation.

Q Well, to the extent of the assumption you have just used, if you could go ahead and provide us then with any clarifications on that. When you updated your testimony on September 23, several of your calculations of the cost of equity increased. Why did you not update your recommended return on equity?

A Because the return on equity that I made originally on the--and presented in the July 30 testimony was a future oriented range using projected data. The capital cost rates and the interest rates have risen over the period and--however, the projected data that I used accounted for that rise in my recommendations still exceeded, in instances, or were higher than what those rates are today. So, the--was no reason to change the recommendation. Those rates rising were anticipated in the data I was using.

MR. WUETCHER:

That's all we have. Thank you Dr. Weaver.

CHAIRMAN HELTON:

Ms. Blackford, do you have any redirect?

MS. BLACKFORD:

No.

CHAIRMAN HELTON:

Mr. Watt?

MR. WATT:

No.

CHAIRMAN HELTON:

You may be excused.

MS. BLACKFORD:

Call Mr. Galligan.

(WITNESS DULY SWORN)

The witness, RICHARD GALLIGAN, having first been duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. BLACKFORD:

Q Mr. Galligan, would you state your name and business address for the record please?

A My name is Richard Galligan, my business address is Exter Associates, Incorporated, 12510 Prosperity Drive, Suite 350, Silver Spring, Maryland.

Q Are you the same Richard Galligan who caused to be filed certain testimony in Case Number 99-176 on behalf of the Attorney General on September 23 of this year?

A Yes, I am.

Q Do you have any corrections or amendments to make to that testimony?

A I do have two changes on page 16. One is on the question on line 16, I would strike the word "unitized," and the second is on line 19 starting the answer, again, strike the word "unitized."

MR. WATT:

Mr. Galligan, could I have the page number please?

A Yes, page 16.

MR. WATT:

I'm sorry, I was on page 15. Can we start over, I apologize.

A Yes. On line 16 in the question strike the word "unitize," and similarly on line 19 in the answer strike the word "unitize," and with those changes the footnote becomes unnecessary.

MR. WATT:

So, you want to delete that?

A Yes.

Q Are there any further corrections or amendments?

A No.

Q With those changes were I to ask you the same questions today that are posed in that testimony, would the answers that you would give be the same?

A Yes, they would.

MS. BLACKFORD:

I move his testimony into the record and hold the witness available for cross.

CHAIRMAN HELTON:

So ordered, Mr. Watt.

MR. WATT:

Thank you, Your Honor.

CROSS EXAMINATION

BY MR. WATT:

Q Mr. Galligan, would you--first, good afternoon.

A Good afternoon Mr. Watt.

Q Would you please turn to page 14 of your testimony?

A Yes.

Q On lines 22 through 24 you state that your cost of service study allocates 50% of Delta's distribution mains cost on peak demand and 50% on annual usage; correct?

A Yes, it does and in a footnote on page ten I explain that an allocation on annual usage is identical to an allocation on average demand.

Q Are you aware of any gas rate cases where the methodology you are proposing was adopted by

this Commission?
A By this Commission, no, it has been adopted in other jurisdictions, but my reading of the history in this jurisdiction is that since Administrative Case 297 there have been several companies that have gone through two rate cases and from what I read in those rate cases the companies have not presented this method. Some parties have--in one case it was suggested that perhaps an averaging peak method should be utilized but the Commission found that no cost of service study, in fact, had been performed. And it was proposed with comments like, well, a rule of thumb might suggest that was reasonable and so forth, and then the Commission did not find a record basis to adopt it. So, while the Commission has encouraged, if you look at those orders, has encouraged the moving away from reliance on peak demands for the stated reason that they feel that unreasonably and unfairly allocates too much capacity cost or demand related cost to residential customers, they have not yet, to my knowledge, in this

jurisdiction, approved an average in peak study.

Q You are aware, aren't you, that Delta's cost of service approach, including the zero intercept methodology for classifying distribution mains, has been approved by this Commission on several occasions?

A As I say, with a history of little support for alternative rate studies, that is my understanding, yes.

Q In Case 90-158 I believe the Commission said the methodology is acceptable and should be used as the starting point for gas rate design, you don't dispute that, do you?

A Well, I don't have that exact language in front of me, but I did see some similar language where the Commission indicated that it would use the study as a guide, particularly where no other alternative was available.

Q Well, in Case Number 10064 the Commission likewise approved the methodology by saying it provides an adequate starting point for rate design and should be used as the guide

for the allocation of revenues to the customer classes. You don't dispute that I'm reading that correctly, do you?
A What company was that?
Q LG&E.
A LG&E. Could you point me to the page reference?
Q I don't have the pages, it is the Order in Case 10064, though.
A And what was the quote?
Q The methodology similar to the one used by Delta "provides an adequate starting point for rate design and should be used as the guide for the allocation of revenues to the customer classes."
A I don't have that exact language but that is a study where the Commission, for example, concluded that the AG has provided no evidence to support the reasonableness of his cost of service allocation methodologies, in fact, when asked to explain the basis for one of his proposed methodologies the AG's witness vaguely characterized it as a rule of thumb and reasonable at first glance.

Explanation such as that hardly support the reasonableness of the AG's recommended allocation methodology. So, in a case where the Commission appears to have been provided with no alternatives, it may well have concluded that it was going to use the company study as the starting point.

Q Would you characterize a 50/50 allocation as a rule of thumb?

A No, as I explain in my testimony that is a very conservative movement toward the reflection of volumes in the allocation of distribution plant.

Q Did you perform any sort of empirical or otherwise analysis to determine that the 50/50 allocation methodology is the appropriate one?

A The basis of that is explained in my testimony at pages 10 through 15, including footnotes and in a data response. Due to the mathematics of the through-put when you increase the size of a pipe, due to the history that I have been exposed to in reviewing work orders for the extension of mains, looking at the cost of pipe relative to the total cost of those extensions, with the pipe coming in at 10 to 15% of the total capitalized cost of the extensions, my reflection of fully 50% of the cost of mains on peak demands rather than a very much smaller 10 to 15%, even if that pipe cost is a percentage of total investment costs were at 20% and you get the kind of economies of scale from pipe size where the through-put varies not with the diameter of the size of the pipe but with the square of the--actually, the square of the radius, the area increases with the square of the radius and the through-put increases with the square of the increase in the size of the radius or the diameter. The arithmetic and the information that I've seen suggests that the very much smaller portion of the pipes could be--an argument could be made to allocate that on peak demands as a conservative movement toward the initial recognition of volumes in a cost of service study. In this jurisdiction I allocate fully 50% on peak demand leaving only 50% to be allocated on volumes.

Q You agree with Mr. Estomin, don't you, that in Delta's last rate case, Number 97-066, the Commission indicated an explicit preference for the zero intercept method? On about page 23, I don't remember exactly.

A Yes, I do and that is in a section of the report where the Commission is discussing whether the minimum system or the zero intercept system should be utilized. And in that context it expressed a preference, if you are going to use the customer component, to use the zero intercept method.

Q The Commission was really talking about their determination that the average and peak methodology did not have sufficient reliability to warrant the Commission's complete reliance, wasn't it?

A That may--

Q It's page 24, I apologize.

A --may also be in that Order. What was the page reference?

Q Page 24.

MS. BLACKFORD:

I'm not sure you all are looking at the same case, I think he has miss-heard the case reference, possibly.

Q It's at the bottom of page 23, I apologize. And the question is simply you agree, don't you, that the Commission stated in that Order explicitly that it had a preference for the zero intercept methodology?

A Those words appear there, I have seen this before. And in the very next paragraph the Commission also states while recognizing the weakness of the average and peak methodology, as it was apparently presented in that case, of which I do not know the details, the Commission again indicated that the Commission finds that both studies provide some usefulness in establishing Delta's rate design and will use them. So, apparently, the Commission did consider and utilize the results of that study on the basis of my reading of its order.

Q Thank you. Let me get you to turn to your response to Item 26 of the PSC Data Request. Do you have that before you?

A Not quite. Yes, I have it.

Q In your response to Item B of that request you say, "Mr. Galligan has modified the Delta COS by allocating distribution main costs on the basis of class average and peak demands, replacing Delta's proposed class customer and peak demand method." Is that what you said in answer to that question?

A Yes.

Q Now, would you look at Delta's Data Request, Item 83, the one where you submitted your work papers?

A Yes, I have it.

Q Let me get mine out. At pages 83-3 to 83-5 is it correct that you functionalize transmission plant costs as 50% demand related and 50% commodity related?

A What was the category cost?

Q Transmission plant?

A Yes. That is clearly shown on those work sheets.

Q Then on pages 83-9 through 83-14 is it true that you allocated the demand related costs to the customer classes based on demand and the commodity related costs based on commodity?

A Well, the nomenclature of the terms that you have used in your question, I allocated the transmission costs half on class peak demands and half on class average demands, similarly to the distribution costs.

Q And that was transmission costs you just described there?

A Yes.

Q The functionalization and allocation methodology that you use is not the same as Delta's which is set forth in Seelye's Exhibits 1 and 2; correct?

A The functionalization and which?

Q Allocation methodology?

A No, we do differ on the allocation of the transmission mains and the distribution mains.

Q Look at page 83-5, I believe you state on there that the investment represented by distribution mains is 39,176,572? I got that by adding those two numbers together.

A I'm sorry, I don't have a copy of the--okay, would you give me a moment, please?

Q Sure.
A Okay, I'm with you.
Q Okay. The question that was pending is whether or not it was true that the investment represented by distribution mains is 39 million plus as shown in the--by adding together the two columns identified as distribution mains demands and distribution mains commodity; isn't that right?
A That looks about right form the line called net cost rate base.
Q Right. And isn't it also true that the investment represented by transmission mains is a little bit in excess of $22,000,000; right?
A Approximately.
Q I get $22,174,092; does that sound about right to you?
A Well, neither piece exceeds ten million, six, so--
Q What I'm looking at is the line called "Total Net Utility Plant" right in the middle of the page?
A Yes.

Q And then look at the columns that are entitled "Transmission Demand and Transmission Commodity."

A Yes, I see it.

Q Do you agree with me?

A Yes, I do.

Q Okay. Now, you didn't state in your answer to the PSC's Data Request that you reallocated this 22 million plus of transmission mains, did you?

A I believe I indicated that the--right. Then I talked about distribution mains in my testimony. Back on page eight at the very top I indicate that the cost associated with investment in mains is misallocated due to Delta's introduction into its cost of service study of the minimum system concept, in this case the zero inch system. Upstream of services investment back into the allocation of the mains investment, consistent with that testimony once you get into that part of the system where the system is designed on the basis of loads placed upon it, which wasn't the case with services as we discussed yesterday with Mr. Jennings--excuse me, with Mr. Seelye. While the service has to be sized to take the load from the mains to the customer premises, he agreed, I believe, that the system from that point back has to be deigned to meet the peak loads. And so, the changes that I have made are to take the system from that point back and reallocate them on what, obviously, I believe are better--is a better cost basis than pretending that investment had something to do with a number of customers or relies totally on peak demands.

Q Mr. Galligan, on page--at the very bottom of page five going over to the top of page six of your testimony, you state mains investment at in excess of $39,000,000 represents the largest single category of cost in Delta's system as is generally the case for local gas distribution companies; do you see that?

A Yes, yes.

Q You don't mention the $22,000,000, then, in transmission mains thought, do you there?

A No, not there. But as I said and as you indicated in your question, it is clearly evident from the work papers that I provided in--accompanying this testimony.

Q Would you look at page 83-15, again, of course this is part of your work papers filed in response to Data Request, Item 83.

A Excuse me, it's like the scissors at home, I seem to have missed them, misplaced it.

MS. BLACKFORD:

83?

MR. WATT:

83-15, yes.

MS. BLACKFORD:

Seems like to me they keep running away don't they?

A Yes, sir.

Q Now, isn't it true that if you look at--see the expense adjustments there, it starts about the middle of the page on the left hand side?

A We are on 83-15, not 13, okay, yes.

Q Now, beneath that there are a bunch of sub categories; isn't that correct?

A Yes.

Q Look at the one that is called "Expense Adjustments" and then look at "Payroll Expense," do you see that one?

A Yes.
Q Now, you allocated that item to the classes on the basis of demand; correct?
A Yes.
Q Now, Seelye did not do that in his cost of service study, did he, Seelye Exhibit 2?
A I would have to check that and it was not our intention to alter that $116,000 amount.
Q Why don't you get Seelye Exhibit 2 and turn to page 2-29 so you can see how he did it and confirm to me that you did it differently?
A 39 or 29?
Q 29, 2-29, actually, yes, Exhibit 2, page 2-29, do you have that?
A Yes, the--if you will bear with me a moment.
Q Okay.
A If you will look with me between these two exhibits--
Q Okay, go ahead.
A --at each class amount that has been allocated to each class you will see they are identical. We submitted a data request to help us understand this portion of your study and the intent was not to change it but to

duplicate it, and from the numbers I have in front of me it looks like while the denotation of the allocation vector is DEM-01 instead of LBTT, it looks like, in fact, it has not been allocated any differently in our study than in your study.
Q Are we dealing with a difference in terminology in your view or what?
A Yes, simply an indication of what that allocation factor is that took that cost to class.
Q Would you look at--going back to you 83-15, would you look at the expense adjustment that is entitled "Eliminate Test Year Expenses?"
A Yes, and, again, it looks like same explanation, difference in what the factor has been called but no difference in the allocation of the cost to class.
Q Excuse me, go ahead.
A No difference in the allocation of cost to class.
Q You had allocated it to DEM-01 and the Delta cost of service study allocated it to OMTT but you say they--you think that is the same; is that your testimony?

A It is allocated the same, yes. The nomenclature for the allocation factor is different.

Q Would you look on down, again, on 83-15, "Expense Adjustments" and then "Customer Deposits," do you see that one?

A Yes.

Q That was also allocated on the basis of demand; correct?

A Again, if you look at the detail that ended up in each customer class it is identical on my study and the company's study.

Q Except that the company calls it OMTT and you call it DEM-01?

A Yes.

Q And medical adjustment appears to be the same, you have allocated it on the basis of demand, right?

A Again, the amounts in each customer class are identical to those that the company put in each customer class, the nomenclature of the allocation factor is different.

Q Now, let me make sure I understand. We don't have any allocation terminology difference on these transmission mains, you just didn't mention them, did you; correct?

A They are clearly shown in the document to which we have been referring which is--what I did when I filed my testimony I put just the summary page in because I found very few commissions that are really going to get into the detail that we have been getting into, for example. When you asked for the work papers I provided them and they very clearly indicate that I have allocated transmission half on annual demands, half on peak demands, same as for distribution. My testimony discussing the rationale behind that is, again, as I indicated on the top of page 10.

Q Okay. Let me just make sure that I'm clear about where you are, Mr. Galligan. You use a different allocation methodology, and intentionally so, than Delta on distribution mains and transmission mains, right?

A Yes, sir.

Q But you think that you are using the same allocation methodology as Delta on these expense adjustment items that we have discussed, you think we are only using different nomenclature; correct?

A Yes, yes.

Q Are there any other allocations that you made different than the way Delta allocated besides these two, distribution and transmission?

A No, if you understand, as I'm sure you do, that when a cost of service study is performed there are what I think of as primary allocation factors that are input, and then the study itself will calculate some internal allocation factors. For example, if the company doesn't know how to allocate some O&M expense and it decides I'll allocate it on the sub total of production and transmission and distribution plant added up. Of course, those would be different in my study because I have changed the allocation of those cost to class, but with that exception those are the only two changes that I made to the study.

Q Now, are there any other items, other than the $22,000,000 worth of transmission plant, that you fail to mention or support through your testimony, whether it had different--

A Well, I can't agree with that calculation or with that statement.

Q Well, I think your testimony was that you--just a moment ago, was that you just did a summary form of testimony but the information about the allocation of the transmission mains was revealed to us through the work papers. And my question to you is, is there anything else that is like that?

A Now, that was not my complete answer. I also indicated that at the top of--I said page ten, looking at it now, again, it appears at the top of page eight, there is an explanation of the rationale for allocating investment upstream of services, back into the mains, on the basis of both peak demands and average demands.

MR. WATT:

I think that is all we have Your Honor.

VICE CHAIRMAN HOLMES:

Staff?

MR. WUETCHER:

Just a few.

CROSS EXAMINATION

BY MR. WUETCHER:

Q On what basis did you choose to split transmission and distribution costs equally?

A Explained on about pages 10 through 15 is the concept that increasing the capacity of a gas distribution system is very cheap at the margin. And as I just discussed a little bit earlier, what the company--probably no more than 10 to 15% is the cost of the pipe for a project and that is the cost that would change, essentially, if you needed to build your system with a little more capacity than you are otherwise thinking of. And, in fact, even just doubling the size from two to four inch, which is the major pipe editions that Delta is in the business of putting in these days, it gives you a four fold increase in the capacity of the system. And when you get that kind of an increase in the capacity at a very low marginal cost, and recognizing as Professor Bonbright says, that, and I think it is pretty well accepted in the industry, that it is the incremental costs that belongs on peak. There is very little cost should be allocated on the peak. Because this is the first time that a study, hopefully, will be used by the Commission in this jurisdiction that recognizes energy, I have very conservatively put 50% of the cost of these transmission distribution mains on energy rather than their much larger percentage, with a very much smaller percentage properly being associated with peak demands.

Q Can you explain why you didn't use the results from Dr. Estomin's unweighted regression that yielded a 33% allocation to customer charges?

A Yes. If you read my testimony you will see the basis of my belief that once you get up stream of the service line that runs from, let's call it the center of the street where the main is buried over to an individual premises, then that part of the system is designed to flow to numerous customers their annual requirements and because they don't require the same amount each and every day, some small incremental cost of that system is related to providing their peak requirements as well as their annual requirements. And that is why I've allocated that on the two basic causes of cost, the fact that people have annual demand for natural gas in such sufficient volumes that they can amortize as it were or relate the total cost of service to enough volumes to get the average price down to where it will compete with alternate fuels. And, in addition, they also get a peak load related cost allocation, and that contrast with the company where when you think about what Delta does is it takes gas from, basically, at city gates, the service it provides is bringing that gas to the customers premises. It may stop for a little while in storage but it comes out of storage and goes to the customers premises. Delta is a distribution company. And the irony of their study is they haven't allocated any of that which they are about, their distribution transmission system, on the basis of customers demands for gas. They believe that all this is related to customers just being there, not using any gas, or what the customer is doing on a design day, which for Delta happens about once every two years, given its definition of design day weather.

Q Would you agree that the adjustments that you have made to Mr. Seelye's cost of service study have, in effect, shifted or increased the cost that would be allocated to larger customers and special contract customers?

A If you look at the results of my study compared to the results of Mr. Seelye's customer demand study, that is true, generally true.

Q Okay. Now, do you believe that there is a point at which larger customers and special contract customers may leave the system if the rates which Delta charges are increased significantly?

A Yes, but my revenue spread does not do that. If you look at, for example--

Q Well, I'm just--you are in agreement, though, that where there is--if the costs are increased for the large customers and the special contract customers, at some point they may consider

alternative energy sources or other sources of gas; would that be correct?
A Sure. There is something known as the law of demand and if the price goes high enough people with alternatives will shop around. You mentioned special contract customers, there is no proposed increase in my testimony for special contract customers.
Q Okay. Do you agree that a cost of service model should only be--should be used as a guide in establishing rates?
A Oh, absolutely, and I have extensive testimony on that point, yes.
Q Okay. And would you agree that there are other factors that are also to be considered in actually establishing rates?
A Absolutely, yes.
Q And would you agree that one of the factors that should be considered in the establishment of rates are the existence of competitive pressures in the market place?
A If the price were to get you into a range where that were a consideration, but, as I indicated, my study increases interruptible

rates by eight cents more than the ten cent increase that the company has proposed for interruptible customers.

MR. WUETCHER:

That's all we have. Thank you.

CHAIRMAN HELTON:

Ms. Blackford?

MS. BLACKFORD:

No questions.

CHAIRMAN HELTON:

Mr. Watt?

MR. WATT:

I have no further questions, Your Honor.

CHAIRMAN HELTON:

You're excused. I believe that is your last witness, Ms. Blackford?

MS. BLACKFORD:

That is our last witness.

CHAIRMAN HELTON:

I don't think there are any other matters. They filed their motions--their response to motions.

MR. WUETCHER:

Yes, your Honor, both responses have been filed. If I could, there are two very brief matters. One is simply to note for the Commission what I think I've previously noted very briefly in requesting some information, that both parties have agreed that Commission staff may submit to them some questions in writing concerning the cost of service studies that are of a technical nature and better suited for responses in a written format than the testimonial format here today. And the parties have agreed that they would provide those by--within two weeks of the time that they are submitted by Commission staff.

MR. WATT:

That's correct.

MR. WUETCHER:

And the other matter is just to make an on the record request. Mr. Hall, yesterday in his testimony said that the short-term cost of debt for Delta was now at 5.89% and we would request that Delta provide us with some evidence to support Mr. Hall's statement as to the--

MR. WATT:

Sworn testimony not good enough?

MR. WUETCHER:

Well, I think we want something to support that in addition to his statement.

MR. WATT:

You're thinking of a document from a bank or something?

MR. WUETCHER:

Yes.

MR. WATT:

Okay.

CHAIRMAN HELTON:

Any other matters we need to clarify? The procedural schedule calls for briefs on this by the 29. I'm assuming, Vivian, that the transcript counting from today will be the 12th; is that correct?

COURT REPORTER:

Yes.

MR. WUETCHER:

Your Honor, I'm sorry to interrupt again. There has been a number of requests made back and forth, if I could suggest to the Commission that those all be filed no later than 14 days from today so that all the requests that have been made by the various parties can be met.

MS. BLACKFORD:
     You said the transcript will be available--
CHAIRMAN HELTON:
     The 12th.
MS. BLACKFORD:
     The 12th.
CHAIRMAN HELTON:
     Are the parties in agreement with Mr. Wuetcher's request?
MR. WATT:
     That's fine, Your Honor, 14 days from today?
CHAIRMAN HELTON:
     From the day that you get it, I believe he said.
MR. WUETCHER:
     I think 14 days from today, as far as requests that have been made either today or yesterday.
CHAIRMAN HELTON:
     Anything else? If not, we are adjourned.

(OFF THE RECORD)

CERTIFICATE

STATE OF KENTUCKY)
COUNTY OF FRANKLIN)

I, VIVIAN A. LEWIS, a Notary Public in and for the state and county aforesaid, do hereby certify that the foregoing testimony was taken by me at the time and place and for the purpose previously stated in the caption; that the witnesses were duly sworn before giving testimony; that said testimony was first taken down in shorthand by me and later transcribed, under my direction, and that the foregoing is, to the best of my ability, a true, correct and complete record of all testimony in the above styled cause of action.

WITNESS my hand and seal of office at Frankfort, Kentucky, on this the 10th day of November, 1999.

Vivian A. Lewis

VIVIAN A. LEWIS
Notary Public
Kentucky State-at-Large

My commission expires: 7-23-01

Vivian A. Lewis

COURT REPORTER - PUBLIC STENOGRAPHER
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Index for Case: 1999-00176

AS OF : 06/28/02

Delta Natural Gas Company, Inc.

General Rates

Regular

HISTORICAL TEST PERIOD

IN THE MATTER OF AN ADJUSTMENT OF RATES OF DELTA NATURAL GAS COMPANY, INC.

SEQ NBR		Date	Remarks
1		04/29/99	Notice of Intent.
2		04/30/99	Acknowledgement letter of Notice of Intent.
3		07/02/99	Application.
4	(M)	07/02/99	LETTER OF CONCERN TO INCREASE (ORDA LEDFORD CITIZEN)
5		07/06/99	Acknowledgement letter.
6	(M)	07/07/99	MOTION TO CONSOLIDATE & MAINTAIN PROCEDURAL SCHEDULE (DELTA NATURAL GAS)
7		07/08/99	Response sent to Odra Ledford protest letter.
8		07/09/99	No deficiency letter.
9	(M)	07/09/99	MOTION TO INTERVENE (E BLACKFORD AG)
10		07/13/99	Order granting motion of the Attorney General for full intervention.
11	(M)	07/13/99	REPLY IN SUPPORT OF MOTION TO CONSOLIDATE & MAINTAIN PROCEDURAL SCHED (ROBERT WATT DELTA NATURAL GAS)
12		07/15/99	Data Request Order; response due 7/29
13	(M)	07/26/99	LETTER OF CONCERN TO RATE INCREASE (CRACRAFT,RITCHIE CITIZENS)
14		07/28/99	Response sent to Frank and Dolly Cracraft letter of concern to rates.
15		07/28/99	Response sent to C.B. Ritchie letter of concern to rates.
16	(M)	07/28/99	RESPONSE TO PSC DATA REQ FOR INFO DATED JULY 15,99 (ROBERT WATT DELTA NATURAL GAS)
17		07/30/99	Order setting forth the procedural schedule to be followed in this case.
18		08/05/99	Order denying motion to consolidate; Case No. 99-046 is dismissed.
19		08/11/99	Data Request Order, response due 8/23/99.
20	(M)	08/11/99	LETTER OF CONCERN TO RATES (BERNICE CHEEKS CITIZEN)
21	(M)	08/11/99	INITIAL REQUEST FOR INFORMATION BY THE AG (AG E BLACKFORD)
22	(M)	08/13/99	NOTICE OF CORRCTIN IN THE INITIAL REQ FOR INFO BY THE AG (E BLACK FORD AG)
23	(M)	08/18/99	NOTICE OF FILING PROOF OF PUBLICATION (ROBERT WATT DELTA NATURAL GAS)
24	(M)	08/23/99	RESPONSE TO DATA REQUEST OF THE PSC & AG DATED AUG 11,99 (ROBERT WATT DELTA NATURAL GAS CO)
25		08/30/99	Interest & Concern resp. to Bernice Cheeks; req. to intervene may be filed.
26		09/01/99	Letter advising that a disk is missing from Delta's response filed on 8/23/99.
27		09/02/99	Data Request Order, response due 9/13/99.
28	(M)	09/02/99	DISKETTE TO QUESTION 6 TO RESPONSE TO ORDER OF AUGUST 11,99 (RANDALL WALKER DELTA NATURAL GAS)
29	(M)	09/03/99	SUPPLEMENTAL REQUEST FOR INFORMATION (E BLACKFORD AG)
30	(M)	09/07/99	MONTHLY UPDATE TO QUESTION NO 48 (JOHN HALL DELTA NATURAL GAS)
31	(M)	09/13/99	RESPONSE TO SUPPLEMENTAL DATA REQ OF THE PSC & AG DATED SEPT 2 & 3,99 (ROBERT WATT DELTA NATURAL GAS)
32		09/14/99	Data Request Order, response due 9/24/99.
33	(M)	09/23/99	PREFILED TESTIMONY HENKES,GALLIGAN,ESTOMIN,WEAVER (E BLACKFORD AG)
34	(M)	09/24/99	RESPONSE TO DATA REQUESTS DATED 9/14/99 & MOTION OF CONF. DISK (J. MEL CAMENISCH DELTA NATURAL GAS)
35	(M)	09/28/99	CERTIFICATE OF SERVICE & OF FILING (E BLACKFORD AG)
36		10/04/99	Data Request Order, response due 10/14/99 from the Attorney General.
37	(M)	10/04/99	DATA REQ TO AG (ROBERT WATT DELTA NATURAL GAS)
38	(M)	10/06/99	MONTHLY UPDATE TO QUESTION NO 48 OF DATA REQ FILED JULY 15,99 (JOHN HALL DELTA NATURAL GAS CO)

39	(M)	10/14/99	AG RESPONSES TO DATA REQ PROPOUNDED BY DELTA NATURAL GAS CO (AG E BLACKFORD)
40	(M)	10/14/99	MOTION FOR ENLARGEMENT OF TIME (E BLACKFORD AG)
41	(M)	10/14/99	AG RESPONSE TO PSC ORDER OF OCT 4,99 (AG E BLACKFORD)
42		10/18/99	Letter granting petition for confidentiality filed 9/24/99 by Delta.
43	(M)	10/25/99	TESTIMONY OF SEELYE,BLAKE,BROWN (ROBERT WATT DELTA NATURAL GAS)
44	(M)	10/27/99	NOTICE THAT ATTACHMENTS RESPONSIVE TO DATA REQ 26 ARE NOT INCLUDED AS (E BLACKFORD AG)
45		10/28/99	Order granting the AG an additional day to respond to Delta's info requests.
46	(M)	10/28/99	MOTION TO STRIKE TESTIMONY OF AG WITNESSES (DELTA NATURAL GASROBERT WATT)
47	(M)	10/28/99	MOTION TO STRIKE & BAR FROM CONSIDERATION CERTAIN TESTIMONY (AG E BLACKFORD)
48	(M)	10/29/99	RESPONSE TO DELTA MOTION TO STRIKE TESTIMONY OF AG WITNESSES (AG E BLACKFORD)
49	(M)	10/29/99	RESPONSE TO AG MOTION TO STRIKE (DELTA ROBERT WATT)
50		11/03/99	Letter containing PSC Staff questions; answers due no later than 11/17/99.
51	(M)	11/04/99	NOTICE OF FILING & CERTIFICATE OF SERVICE (E BLACKFOR AG)
52	(M)	11/09/99	HEARING EXHIBITS HELD 10/28/99 (VIVIAN LEWIS/COURT REPORTER)
53	(M)	11/09/99	TRANSCRIPT FOR HEARING HELD 10/28/99 VOL. I OF II (VIVIAN LEWIS/COURT REPORTER)
54	(M)	11/12/99	RESPONSE TO STAFF REQUEST MADE DURING HEARING HELD ON OCT 28,29 199 (JOHN HALL DELTA NATURAL GAS)
55	(M)	11/12/99	TRANSCRIPT FOR HEARING HELD 10/29/99 (VIVIAN LEWIS/COURT REPORTER)
56	(M)	11/17/99	RESPONSE TO POSTHEARING DATA REQ BY KY PSC ON NOV 3,99 (E BLACKFORD AG)
57	(M)	11/17/99	RESPONSE TO POST HEARING STAFF REQ MADE TO STEVE SEELYE (JOHN HALL DELTA NATURAL GAS)
58	(M)	11/29/99	BRIEF (ROBERT WATT DELTA NATURAL GAS)
59	(M)	11/29/99	POSTHEARING BRIEF (AG)
60		11/30/99	Order denying Delta's Motion to Strike the Testimony of the AG's Witnesses.
61		12/27/99	Final Order approving rates in Appendix B and approving proposed WNA.
62	(M)	01/06/00	REVISED TARIFF SHEETS (CONNIE KING DELTA NATURAL GAS)
63	(M)	01/10/00	RESPONSE TO ORDER OF DEC 27,99 (CONNIE KING DELTRAN INC)
64	(M)	01/18/00	MOTION FOR REHEARING (AG E BLACKFORD)
65	(M)	02/01/00	RESPONSE TO AG MOTION FOR REHEARING (ROBERT WATT DELTA NATURAL GAS)
66		02/07/00	Order on Rehearing
67	(M)	06/27/00	RESPONSE TO 12/27/99 ORDER (CONNIE KING/DELTA NATURAL GAS)
68	(M)	05/15/01	ANNUAL REPORT ON WEATHER NORMALIZATION ADJUSTMENT (CONNIE KING DELTA NATURAL GAS)
69	(M)	06/27/02	Connie King - Delta Natural Gas Company, Inc. - Delta Natural Gas Co Inc report includes the financial & statistical data requested in appendix C to Order

Delta Natural Gas Company, Inc.
3617 Lexington Road
Winchester, Kentucky 40391-9797

PHONE: 859-744-6171
FAX: 859-744-3623

DGAS NASDAQ LISTED

June 26, 2002

Mr. Thomas Dorman
Executive Director
Public Service Commission
P O Box 615
Frankfort, KY 40602

RE: CASE NO. 99-176

Dear Mr. Dorman:

Per the Commission's Order in Case No. 99-176 dated December 27, 1999 attached is Delta's annual report on its Weather Normalization Adjustment (WNA) program.

The attached report includes the financial and statistical data requested in Appendix C of the Commission's Order for the heating season of December 1, 2001 – April 30, 2002.

If you have any questions regarding this report, please contact me at 859-744-6171 extension 140.

Please acknowledge receipt of this filing by stamping the extra copy of the cover letter and returning to me in the envelope provided.

Sincerely,

Connie King

Connie King
Director – Rates & Treasury

Delta Natural Gas Company, Inc.
3617 Lexington Road
Winchester, Kentucky 40391-9797

PHONE: 859-744-6171
FAX: 859-744-3623

DGAS NASDAQ LISTED

RECEIVED
JUN 27 2002
PUBLIC SERVICE COMMISSION

June 26, 2002

Mr. Thomas Dorman
Executive Director
Public Service Commission
P O Box 615
Frankfort, KY 40602

RE: CASE NO. 99-176

Dear Mr. Dorman:

Per the Commission's Order in Case No. 99-176 dated December 27, 1999 attached is Delta's annual report on its Weather Normalization Adjustment (WNA) program.

The attached report includes the financial and statistical data requested in Appendix C of the Commission's Order for the heating season of December 1, 2001 – April 30, 2002.

If you have any questions regarding this report, please contact me at 859-744-6171 extension 140.

Please acknowledge receipt of this filing by stamping the extra copy of the cover letter and returning to me in the envelope provided.

Sincerely,

Connie King

Connie King
Director – Rates & Treasury

Delta Natural Gas Company, Inc.

Weather Normalization Annual Report

Fiscal 2002

Summary

	December	January	February	March	April	Total
WNA Customers						
Residential	34,168	34,578	34,766	34,749	34,599	**172,860**
Small Non-Residential	4,536	4,639	4,689	4,703	4,677	**23,244**
Total	**38,704**	**39,217**	**39,455**	**39,452**	**39,276**	**196,104**
WNA Revenue (Expense)						
Residential	$ 286,142.13	$ 97,376.48	$ 393,975.22	$ 37,491.05	$ (44,744.07)	**$ 770,240.81**
Small Non-Residential	$ 70,493.17	$ 27,883.84	$ 113,491.53	$ 12,328.36	$ (13,795.68)	**$ 210,401.22**
Total	**$ 356,635.30**	**$ 125,260.32**	**$ 507,466.75**	**$ 49,819.41**	**$ (58,539.75)**	**$ 980,642.03**
MCF Volume Adjustment						
Residential	78,992	26,882	108,761	10,350	(12,352)	**212,633**
Small Non-Residential	21,789	8,894	38,219	4,001	(4,309)	**68,594**
Total	**100,782**	**35,776**	**146,979**	**14,351**	**(16,661)**	**281,227**
WNA Revenue per Customer						
Residential	$ 8.37	$ 2.82	$ 11.33	$ 1.08	$ (1.29)	**$ 22.31**
Small Non-Residential	$ 15.54	$ 6.01	$ 24.20	$ 2.62	$ (2.95)	**$ 45.43**
Heating Degree Days						
Billed Actual	379	896	858	700	545	**3,378**
Billed Normal	593	925	1,109	726	485	**3,838**
% of Normal	63.91%	96.86%	77.37%	96.42%	112.37%	88.01%
Customer Contacts						
Inquiries	3	-	1	3	1	**8**
Complaints	1	-	-	-	-	**1**

Louisville Gas and Electric Company

Original Sheet No 14-L

Canceling Sheet No

P.S.C. of KY. Gas No. 4

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

Where:

OSREV is the total revenue associated with off-system sales transactions.

OOPC is the out-of-pocket costs associated with off-system sales transactions, and shall be determined as follows:

OOPC = OOPC(GC) + OOPC(TC) + OOPC(SC) + Other Costs

Where:

OOPC(GC) is the Out-of-Pocket Gas Costs associated with off-system sales transactions. For off-system sales utilizing Company's firm supply contracts, the OOPC(GC) shall be the incremental cost to purchase the gas available under Company's firm supply contracts. For off-system sales not using Company's firm supply contracts, the OOPC(GC) shall be the incremental costs to purchase the gas from other entities.

OOPC(TC) is the Out-of-Pocket Transportation Costs associated with off-system sales transactions. For off-system sales utilizing Company's firm transportation agreements, the OOPC(TC) shall be the incremental cost to use the transportation available under Company's firm supply contracts. For off-system sales not using Company's firm transportation agreements, the OOPC(TC) shall be the incremental costs to purchase the transportation from other entities.

OOPC(SC) is the Out-of-Pocket Storage Costs associated with off-system sales of storage. If this is gas in Company's own storage it shall be priced at the average price of the gas in Company's storage during the month of the sale. If this is gas from the storage component of Texas Gas's No-Notice Service, this gas shall be priced at the replacement cost.

Other Costs represent all other incremental costs and include, but are not limited to, costs such as applicable sales taxes and excise fees plus the gains and/or losses from the use of financial hedging instruments and the transaction costs associated with such instruments. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

The OSSIF shall be calculated by dividing 50 percent of the Net Revenue from Off System Sales (NR) by the expected Ccf of sales, as reflected in Company's GSC filing, for the upcoming 12-month period beginning February 1, and the OSSIF shall be applied as a credit to sales during the same 12-month period.

Delta
EXHIBIT NO. 3
V. LEWIS

DATE OF ISSUE October 30, 1997 DATE EFFECTIVE October 1, 1997

ISSUED BY Stephen R. Wood (NAME) President (TITLE) Louisville, KY (ADDRESS)

Louisville Gas and Electric Company

Original Sheet No 14-C

Canceling ______ Sheet No ______

P.S.C. of KY. Gas No. 4

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

Applicable:

To all gas sold.

Rate Mechanism:

The monthly amount computed under each of the rate schedules to which this Performance Based Rate Mechanism is applicable shall be increased or decreased by the Performance Based Rate Recovery Component (PBRRC) at a rate per 100 cubic feet (Ccf) of monthly gas consumption. Demand costs and commodity costs shall be accumulated separately and included in the Pipeline Suppliers Demand Component and the Gas Supply Cost Component of the Gas Supply Clause (GSC), respectively. The PBRRC shall be determined for each 12-month period ended October 31 during the effective term of these experimental performance based ratemaking mechanisms, which 12-month period shall be defined as the PBR period.

The PBRRC shall be computed in accordance with the following formula:

$$PBRRC = GAIF + TIF + OSSIF + BA$$

GAIF

GAIF = Gas Acquisition Index Factor. The GAIF shall be calculated by comparing the total annual Benchmark Gas Costs (BGC) for system supply natural gas purchases for the PBR period to the total annual Actual Gas Costs (AGC) for system supply natural gas purchases during the same period to determine if any shared expenses or shared savings exist. Fifty percent of the shared expenses or shared savings, as applicable, shall be divided by the expected Ccf sales, as reflected in Company's GSC filing for the upcoming 12-month period beginning February 1, to determine the GAIF. The remaining 50 percent of the shared savings or expenses shall be retained or absorbed by the Company respectively.

The BGC shall include two benchmark components as follows:

$$BGC = TABMGCC + HRF$$

DATE OF ISSUE	October 30, 1997	DATE EFFECTIVE	October 1, 1997
ISSUED BY	Stephen R. Wood	President	Louisville, KY
	NAME	TITLE	ADDRESS

Louisville Gas and Electric Company

Original Sheet No 14-D

Canceling ______ Sheet No ______

P.S.C. of KY. Gas No. 4

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

Where:

TABMGCC represents the Total Annual Benchmark Gas Commodity Costs and is the annual sum of the monthly Benchmark Gas Commodity Costs (BMGCC) of gas purchased for system supply; and

HRF represents Historical Reservation Fees and is an annual dollar amount equal to Company's average annual supply reservation fees based on the 24-month period ended October 31 immediately preceding the PBR period.

BMGCC represents Benchmark Gas Commodity Costs and shall be calculated on a monthly basis and accumulated for the PBR period. BMGCC shall be calculated as follows:

BMGCC = Sum {[SZFQE%i x (APV - PEFDCQ)x SAIi]} + [PEFDCQ x DAI]

Where:

SZFQE% is the Supply Zone Firm Quantity Entitlement Percentage derived from Company's firm entitlements by pipeline and by zone for which indices are posted. The percentage represents the pro-rata portion of Company's firm lateral and mainline receipt point quantity entitlements by zone for each transportation contract by pipeline.

i represents each supply area.

APV is the actual purchased volumes of natural gas for system supply for the month. The APV shall include purchases necessary to cover retention volumes required by the pipeline as fuel.

PEFDCQ are the Purchases In Excess of Firm Daily Contract Quantities delivered to LG&E's city gate. Firm Daily Contract Quantities are the maximum daily contract quantities which Company can deliver to its city gate under its various firm transportation agreements and arrangements.

SAI is the Supply Area Index factor to be established for each supply area in which Company has firm transportation entitlements used to transport its natural gas purchases and for which price postings are available. The four supply areas are TGT-SL (Texas Gas Transmission- Zone SL), TGT-1 (Texas Gas Transmission-Zone 1), TGPL-0 (Tennessee Gas Pipeline-Zone 0), and TGPL-1 (Tennessee Gas Pipeline-Zone 1).

DATE OF ISSUE October 30, 1997 DATE EFFECTIVE October 1, 1997

ISSUED BY Stephen R. Wood (NAME) President (TITLE) Louisville, KY (ADDRESS)

Louisville Gas and Electric Company

Original Sheet No 14-E

Canceling ______ Sheet No ______

P.S.C. of KY. Gas No. 4

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

The monthly SAI for TGT-SL, TGT-1, TGPL-0 and TGPL-1 shall be calculated using the following formula:

$$SAI = [I(1) + I(2) + I(3) + I(4)] / 4$$

DAI is the Delivery Area Index to be established for purchases made by Company when Company has fully utilized its pipeline quantity entitlements on a daily basis and which are for delivery to Company's city gate from either Texas Gas Transmission's Zone 4 or Tennessee Gas Pipeline's Zone 2.

The monthly DAI for TGT-4 and TGPL-2 shall be calculated using the following formula:

$$DAI = [I(1) + I(2) + I(3)] / 3$$

Where:

"I" represents each index reflective of both supply area prices and price changes throughout the month in these various supply areas.

The indices for each supply zone are as follows:

SAI (TGT-SL)

I(1) is the average of weekly Natural Gas Week postings for Gulf Coast Onshore Louisiana as Delivered to Pipeline.
I(2) is the average of the daily high and low Gas Daily postings for Louisiana- Onshore South Texas Gas Zone SL averaged for the month.
I(3) is the Inside FERC - Gas Market Report first-of-the-month posting for Texas Gas Zone SL.
I(4) is the New York Mercantile Exchange Settled Closing Price.

SAI (TGT-1)

I(1) is the average of weekly Natural Gas Week postings for North Louisiana as Delivered to Pipeline.
I(2) is the average of the daily high and low Gas Daily postings for East Texas - North Louisiana Area -Texas Gas Zone 1 averaged for the month.
I(3) is the Inside FERC - Gas Market Report first-of-the-month posting for Texas Gas Zone1.
I(4) is the New York Mercantile Exchange Settled Closing Price.

DATE OF ISSUE October 30, 1997 DATE EFFECTIVE October 1, 1997

ISSUED BY Stephen R. Wood (NAME) President (TITLE) Louisville, KY (ADDRESS)

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

SAI (TGPL-0)

I(1) is the average of weekly Natural Gas Week postings for Gulf Coast Onshore Texas as Delivered to Pipeline.
I(2) is the average of the daily high and low Gas Daily postings for Texas South - Corpus Christi-Tennessee averaged for the month.
I(3) is the Inside FERC - Gas Market Report first-of-the-month posting for Tennessee Zone 0.
I(4) is the New York Mercantile Exchange Settled Closing Price.

SAI (TGPL-1)

I(1) is the average of weekly Natural Gas Week postings for Gulf Coast Onshore Louisiana as Delivered to Pipeline.
I(2) is the average of the daily high and low Gas Daily postings for Louisiana- Onshore South - 500 leg averaged for the month.
I(3) is the Inside FERC - Gas Market Report first-of-the-month posting for Tennessee Zone 1.
I(4) is the New York Mercantile Exchange Settled Closing Price.

DAI (TGT-4) and (TGPL-2)

I(1) is the average of weekly Natural Gas Week postings for Spot Prices on Interstate Pipeline Systems for CNG Transmission Co. - Lebanon, Ohio.
I(2) is the average of the daily high and low Gas Daily postings for the Daily Price Survey for CNG-South Point.
I(3) is the Inside FERC - Gas Market Report first-of-the-month posting for Prices of Spot Gas Delivered to Pipeline for CNG Transmission Corp.-Appalachia

AGC represents Company's total annual Actual Gas Costs of natural gas purchased for system supply and is equal to the total monthly actual gas commodity costs and supply reservation fees plus the gains and/or losses from the use of financial hedging instruments and the financial transaction costs associated with such instruments paid by Company to its suppliers accumulated for the PBR period. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

To the extent that AGC exceeds BGC for the PBR period, then the Shared expenses shall be computed as follows:

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

Shared Expenses = AGC - BGC

In the case of Shared Expenses, the GAIF shall be computed by dividing 50 percent of the Shared Expenses by the expected Ccf sales, as reflected in Company's GSC filing, for the upcoming 12-month period beginning February 1, and the GAIF shall be applied as a credit to gas sales during the same 12-month period.

To the extent that AGC is less than BGC for the PBR period, then the shared Savings shall be computed as follows:

Shared Savings = BGC - AGC

In the case of Shared Savings, the GAIF shall be computed by dividing 50 percent of the Shared Savings by the expected Ccf sales, as reflected in Company's GSC filing, for the upcoming 12-month period beginning February 1, and the GAIF shall be billed as a charge to gas sales during the same 12-month period.

<u>TIF</u>

TIF = Transportation Index Factor. The Transportation Index Factor shall be calculated by comparing the Total Annual Benchmark Monthly Gas Transportation Costs **(TABMGTC)** of natural gas transportation services during the PBR period, to the Total Annual Actual Gas Transportation Costs **(TAAGTC)** applicable to the same period to determine if any shared expenses or shared savings exist. Fifty percent of the shared expenses or shared savings, as applicable, shall be divided by the expected Ccf sales, as reflected in Company's GSC filing for the upcoming 12-month period beginning February 1, to determine the TIF. The remaining 50 percent of the shared savings or expenses shall be retained or absorbed by the Company respectively.

The Total Annual Benchmark Monthly Gas Transportation Costs **(TABMGTC)** are calculated as follows:

TABMGTC = Annual Sum of Monthly BMGTC

Where:

BMGTC is the Benchmark Monthly Gas Transportation Costs which include both demand and volumetric costs associated with natural gas pipeline

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

transportation services. The BMGTC shall be accumulated for the PBR period and shall be calculated as follows:

BMGTC = Sum [BM(TGT) + BM(TGPL) + BM(PPL)]

Where:

BM(TGT) is the benchmark associated with Texas Gas Transmission Corporation.

BM(TGPL) is the benchmark associated with Tennessee Gas Pipeline Company.

BM(PPL) is the benchmark associated with a proxy pipeline. This benchmark, which will be determined at the time of purchase, will be used to benchmark purchases of transportation capacity from non-traditional sources.

The benchmark associated with each pipeline shall be calculated as follows:

BM(TGT) = (TPDR x DQ) + (TPCR x AV) + S&DB

BM(TGPL) = (TPDR x DQ) + (TPCR x AV) + S&DB

BM(PPL) = (TPDR x DQ) + (TPCR x AV) + S&DB

Where:

TPDR is the applicable Tariffed Pipeline Demand Rate.

DQ is the Demand Quantities contracted for by Company from the applicable transportation provider.

TPCR is the applicable Tariffed Pipeline Commodity Rate.

AV is the Actual Volumes delivered at Company's city-gate by the applicable transportation provider for the month.

S&DB represents Surcharges, Direct Bills and other applicable amounts approved by the Federal Energy Regulatory Commission (FERC). Such amounts are limited to FERC-approved charges such as surcharges, direct bills, cashouts, take-or-pay amounts, Gas Supply Realignment and other Order 636 transition costs.

The Total Annual Actual Gas Transportation Costs **(TAAGTC)** paid by Company for the PBR period shall include both demand and volumetric costs associated with natural gas pipeline transportation services as well as all applicable FERC-approved surcharges, direct bills and cashouts included in

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

S&DB, plus the gains and/or losses from the use of financial hedging instruments and the financial transaction costs associated with such instruments. Such costs shall exclude labor-related or other expenses typically classified as operating and maintenance expenses.

To the extent that TAAGTC exceeds TABMGTC for the PBR period, then the Shared Expenses shall be computed as follows:

$$\textbf{Shared Expenses} = \textbf{TAAGTC} - \textbf{TABMGTC}$$

In the case of shared expenses, the TIF shall be computed by dividing 50 percent of the shared expenses by the expected Ccf sales, as reflected in Company's GSC filing, for the upcoming 12-month period beginning February 1, and the TIF shall be applied as a credit to gas sales during the same 12-month period.

To the extent that TAAGTC is less than TABMGTC minus the Capacity Release Threshold amount (CRT) for the PBR period, then the Shared Savings shall be computed as follows:

$$\textbf{Shared Savings} = (\textbf{TABMGTC} - \textbf{CRT}) - \textbf{TAAGTC}$$

Where:

CRT represents the Capacity Release Threshold amount which shall be computed as follows:

$$\textbf{CRT} = (\textbf{WMPP} \times \textbf{WMVR} \times \textbf{WWARP}) + (\textbf{SMPP} \times \textbf{SMVR} \times \textbf{SWARP})$$

Where:

WMPP represents the Winter Market Penetration Percentage computed for the twelve months prior to the PBR period (Prior Year)and rounded to the nearest whole percentage as follows:

$$\textbf{WMPP} = \frac{\textbf{AWMR}}{\textbf{WSMQE} - \textbf{WCGD}}$$

DATE OF ISSUE October 30, 1997 DATE EFFECTIVE October 1, 1997

ISSUED BY Stephen R. Wood (NAME) President (TITLE) Louisville, KY (ADDRESS)

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

Where:

AWMR is the Actual Winter Mainline Release volume for the Prior Year.

WSMQE is Company's total firm Winter Seasonal Mainline Quantity Entitlements for the Prior Year under its firm transportation contracts with each of its pipeline transporters, adjusted as applicable under the appropriate transporter's FERC-Approved Tariff.

WCGD is the Winter City-Gate Deliveries under company's Firm Transportation Agreements for the Prior Year.

WMVR is Winter Mainline Volumes Releasable under design conditions for the PBR Period.

WWARP is the Winter Weighted Average Capacity Release Price based on information derived from Winter capacity release transactions (for mainline releases to the applicable pipeline zone of delivery in which Company is located) on each of Company's pipeline transporters for the concurrent PBR period.

Where:

SMPP represents the Summer Market Penetration Percentage computed for the twelve months prior to the PBR period (Prior Year) and rounded to the nearest whole percentage as follows:

$$SMPP = \frac{ASMR}{SSMQE - SCGD}$$

Where:

ASMR is the Actual Summer Mainline Release volume for the Prior Year.

SSMQE is Company's total firm Summer Seasonal Mainline Quantity Entitlements for the Prior Year under its firm transportation contracts with each of its pipeline transporters, adjusted as applicable under the appropriate transporter's FERC-approved Tariff.

SCGD is the Summer City-Gate Deliveries under company's Firm Transportation Agreements for the Prior Year.

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

SMVR is Summer Mainline Volumes Releasable under design conditions for the PBR Period.

SWARP is the Summer Weighted Average Capacity Release Price based on information derived from Summer capacity release transactions (for mainline releases to the applicable pipeline zone of delivery in which Company is located) on each of Company's pipeline transporters for the concurrent PBR period.

In the event that TAAGTC is less than TABMGTC, but revenues subject to sharing do not exceed the CRT, Company will not be required to absorb any costs.

In the case of Shared Savings, the TIF shall be computed by dividing 50 percent of the Shared Savings by the expected Ccf sales, as reflected in Company's GSC filing, for the upcoming 12-month period beginning February 1, and the TIF shall be billed as a charge to gas sales during the same 12-month period.

Should one of Company's pipeline transporters file a rate change effective during any PBR period and bill such proposed rates subject to refund, the period over which the benchmark comparison is made for the relevant transportation costs will be extended for one or more 12-month periods, until the FERC has approved final settled rates, which will be used as the appropriate benchmark. Company will not share in any of the savings or expenses related to the affected pipeline until final settled rates are approved.

OSSIF

OSSIF = Off-System Sales Index Factor. The Off-System Sales Index Factor shall be equal to 50 percent of the Net Revenue from Off-System Sales (NR) divided by the expected Ccf sales, as reflected in Company's GSC filing for the upcoming 12-month period beginning February 1 and shall be applied as a credit to sales during the same 12-month period. The remaining 50 percent of NR shall be retained by the Company.

Net Revenue is calculated as follows:

$$NR = OSREV - OOPC$$

Louisville Gas and Electric Company

Original Sheet No 14-M

Canceling ____ Sheet No ____

P.S.C. of KY. Gas No. 4

STANDARD RATE SCHEDULE PBR

Experimental Performance Based Rate Mechanism

BA

BA = Balance Adjustment. The BA is used to reconcile the difference between the amount of revenues billed or credited through the GAIF, TIF, OSSIF, and previous application of the BA and revenues which should have been billed or credited, as follows:

1) For the GAIF, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the GAIF and the actual amount used to establish the GAIF for the period.

2) For the TIF, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the TIF and the actual amount used to establish the TIF for the period.

3) For the OSSIF, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the OSSIF and the actual amount used to establish the OSSIF for the period.

4) For the BA, the balance adjustment amount will be the difference between the amount billed in a 12-month period from the application of the BA and the actual amount used to establish the BA for the period.

The Balance Adjustment shall be calculated by dividing the total balance adjustment amounts, as determined above by the expected Ccf sales, as reflected in Company's GSC filing, for the applicable upcoming 12-month period beginning February 1, and the Balance Adjustment shall be billed as a charge or a credit to gas sales during the same 12-month period.

DATE OF ISSUE October 30, 1997 DATE EFFECTIVE October 1, 1997

ISSUED BY	Stephen R. Wood	President	Louisville, KY
	NAME	TITLE	ADDRESS