BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

In The Matter of	:	DOCKET NO. 891345-EI
Application of GULF POWER COMPANY for an increase in rates and charges.	:	HEARING FIFTH DAY AFTERNOON SESSION

VOLUME - X

Pages 1397 through 1559

FPSC Hearing Room 106
Fletcher Building
101 E. Gaines Street
Tallahassee, Florida32399

Friday, June 15, 1990

Met pursuant to adjournment at 12:57 p.m.

BEFORE: COMMISSIONER MICHAEL McK. WILSON, CHAIRMAN
COMMISSIONER GERALD L. GUNTER
COMMISSIONER THOMAS M. BEARD
COMMISSIONER BETTY EASLEY

APPEARANCES:

(As heretofore noted.)

REPORTED BY: JOY KELLY, CSR,RPR
SYDNEY C. SILVA, CSR, RPR
Official Commission Reporters
and
LISA GIROD-JONES, CPR, RPR
Post Office Box 10195
Tallahassee, Florida 32302

I N D E X

WITNESSES

Index Continued:

EXHIBITS

AFTERNOON SESSION

(Hearing reconvened at 12:57 p.m.)

ROBERT G. DAWSON

having been previously called and sworn as an adverse witness by the Staff of the Florida Public Service Commission, resumed the stand and testified as follows:

CHAIRMAN WILSON: Do you want to go ahead and do your chart?

WITNESS DAWSON: Yes, sir. Before we stopped for lunch we were talking about the Schedule R rate and the base energy rates on Exhibit 2, and I had done a little hand job trying to explain that, and I find that pictures help me a lot, and maybe this one would solve some of the problems of understanding the differences.

MR. HOLLAND: Commissioner Wilson?

CHAIRMAN WILSON: Yes.

MR. HOLLAND: I don't want to make too big a deal about this, but it was Commissioner Gunter's question.

CHAIRMAN WILSON: I am trying to get him, but I'm not going to sit here all afternoon.

MR. HOLLAND: I'm wondering if we might go on to --

COMMISSIONER EASLEY: Postpone that and go on to any other questions. That's a good idea. Why don't

we do that?

Matter of fact, Mr. Vandiver and I were talking about the number of witnesses we've got left and the number of days we've got left, and I want to admonish everybody to try to be as economic in both questions and answers as possible so that we can have some reasonable possibility of finishing this hearing on time.

COMMISSIONER EASLEY: Including us.

CHAIRMAN WILSON: Including us.

MR. PALECKI: Staff has just one question they'd like to ask.

CHAIRMAN WILSON: All right.

CONTINUED DIRECT EXAMINATION

BY MR. PALECKI:

Q You discussed the U-shaped curve that shows when power plants would start when their electric would be less expensive and then later becomes more expensive. At what age do plants usually hit the bottom of the U-shaped curve?

A I don't know that I've got an exact number on when they hit the bottom, probably towards the 15-, 20-year mark, and that's probably in line with the Daniel example on here.

Q Where would Daniel and Scherer be on the

U-shaped curve?

A Well, Scharer 3 would be the downward sloping, should be substantially away from the bottom of the curve since it's been rate -- I mean, it's been in service since -- three years. I'd say it's gotten 14, 15 more years, under the way we are currently estimating things, projecting things, before it would hit the bottom of the U-shaped curve.

Q And what about Daniel?

A It looks to me like Daniel, in these examples, projects to be at the bottom in '93 and '94, and that's about 17 years. I think Daniel came into service in 1977, Daniel 1, and Daniel 2 came into service in '81. I think earlier I said there was a two-year age difference, that would make a four-year age difference.

MR. PALECKI: Thank you.

CHAIRMAN WILSON: Do you have any more questions at this point, Commissioner?

COMMISSIONER EASLEY: No.

CHAIRMAN WILSON: Major Enders, do you have any questions. Public Council have any questions?

Redirect.

MR. HOLLAND: I really wish Commissioner Gunter were here.

CHAIRMAN WILSON: So do I.

CROSS EXAMINATION

BY MR. HOLLAND:

Q Mr. Dawson, was Scherer Unit 3 built for the benefit of Gulf's retail ratepayers?

A Yes, it was.

Q Is it, in your opinion, in their long-term best interest that Gulf invest in and own Scherer Unit 3?

A Yes, it is.

Q In 1973, when Gulf added Crist Unit 7, do you know what the reserves were with the addition of that Plant?

A I believe they were about 69%.

Q Do you know what they would have been --

CHAIRMAN WILSON: They were about how much?

WITNESS DAWSON: 69, nearly 70%.

Q (By Mr. Holland) Do you know what they would have been without that plant?

A They would have been negative almost 5%.

Q Can a company the size of Gulf add large baseload increments of generation without -- at the time that it's needed, without having some reserves over what the planning requirements would dictate?

A Generally not. If you go back at the time

that these units were planned, particularly Scherer 3, and the estimates made on economy of scale, at that time, what you had was the most economical thing, projected loads, 800 megawatt unit.

Where I think Gulf got a real benefit -- because people cannot build pieces of units. You build the whole thing to get all the economies, Gulf being able to go to another company like Georgia Power Company, and essentially buy a slice of the unit. You got the economies of scale; you didn't exceed the reserves by a tremendous margin, but in just the lumpiness of capacity additions to meet the long-term load growth of a power company, in this case Gulf, there will be times that you will overshoot, could overshoot your target margin, and as you wait to build that next one, you may get right at the bottom or below that your target. But I think -- you've got to remember that this range we talk about, this 20 to 25, is a long-range, long-term planning guideline. It's not day-to-day; it's not just in a test year when you finally get there. You look into the future.

Q The testimony from Mr. Parsons yesterday, I believe, was that the reserves with Scherer capacity in rate base were approximately 25.5% without the 63 megawatts; they were somewhere in the 21 to 22% range.

To the extent that Gulf Power Company sells the 63 megawatts in UPS and the reserves fall to that 21 to 22%, will the customers' lights go out?

A No. They will not go out.

Q To the extent that they will not go out, is that capacity needed on Gulf's system in the test year?

A Yes. And what I would hope is that as the Commissioners pointed out, that they needed to think about the test year and understand the test year is a measurement time, but in the regulatory wisdom that they exercise, I think they've got to look beyond the one year.

They've got to look at the planning horizon, they've got to look at the long-term benefits of the customers. And the need for that capacity was put in for the long term. It was not put in for one day, for one year, right now, but for the whole period that that capacity would be available.

Q If you had added capacity of -- similar to the Crist capacity, Crist Unit 7, and your reserves had gone to 69%, would the company be imprudent or would the capacity over the 25% not be needed in the test year that you would be looking at?

A In and of itself the reserve numbers would not lead you to the conclusion that it was imprudent.

You've got to look at the economics over the long term, and if the economics show that the unit of the Crist 7 size was the economical thing in the long run of the customers, then you ought to put it in. And the fact you're over 25% does not make a piece of that capacity imprudent.

Q Is the Scherer 3 capacity used and useful in the test year to the extent it's providing service in the test year?

A Yes, it is.

Q With Scherer in rate base, is Gulf Power still within what you would consider a reasonable reserve level for planning purposes?

A Yes, sir.

Q Is the reason that Gulf Power Company has made available the 63 megawatts for sale in UPS that there is less expensive energy available in the test year to serve Gulf's customers?

A I'm not sure I got that question.

Q Gulf Power, in this proceeding, has stated that it would, were there a market, sell the 63 megawatts of Scherer capacity.

A Right

Q Off system. Is the rationale for that that there is less expensive capacity and/or energy

available from other sources?

A That's part of the rationale, yes.

Q Would it be prudent regulation or prudent utility practice that you include investment in rate base in only those years in which the capacity that you have available to serve is the least-cost capacity available?

A I think that would be a bizzare turn of events, and would send a signal to all utilities that they should not add capacity of any kind. Because, generally speaking, like capacity added later is going to be more expensive. And you would have to wait until you built the second unit in order to get the first unit put in rate base.

Q Have you been made aware of the Commission's surveillance reporting system?

A Yes, I have.

Q Are you aware that Gulf Power Company has asked that 63 megawatts, or approximately $55 million worth of investment in Scherer 3, be included in rate base for purposes of setting rates?

A That's what I understand.

Q Okay. I want you to assume that everything else is static and that Gulf Power Company sells the 63 megawatts in unit power sales in 1991. Have you got

that?

A Okay.

Q Okay. Would the $55 million or the equivalent of the 63 megawatts be pulled out of Gulf's rate base in 1991? For territorial purposes, for purposes of the Surveillance Report that Gulf files with this Commission?

A That's my understanding, it would be.

Q And again, assuming everything else is static and the rates are the same as set in 1990 and you remove the 55 megawatts from rate base, what would that cause Gulf's earnings to do? You've got a lower rate base and the same revenues.

A Well, to the extent that you credit all the revenues back against the lower rate base, you would see revenue, the return go up.

Q Okay. Is it reasonable to assume that Gulf Power Company will not add additional Plant in 1991 in the form of transmission and distribution investment, other types of investment?

A I think it's pretty obvious that Gulf will add additional transmission distribution investment, probably production modification. The world is not static, as you started off the example.

Q The record will reflect, and evidence has

been presented, that Gulf Power Company has, in fact, added, on average, over the past four to five years, $70 million in additional plant every year since 1984.

If everything else remains static and you take the 55, the investment associated with the 55 megawatts out, because you've sold it in UPS in 1991, and you add the $70 million of additional investment that Gulf has incurred in the Surveillance Report, what would that cause Gulf's earnings to do?

A The revenue is granted in '90 for the same --

Q Yes.

A And '91, you're now adding 70 more million dollars in investment over there and you're backing out 55 million, so rate base investment has gone up 15 million, the earnings would go down.

Q I think a couple of times I said 55 megawatts; I meant $55 million. I believe you picked that up.

A I was hearing 55 million.

Q Okay.

CHAIRMAN WILSON: Do I understand that the treatment under Surveillance Reporting, that at the times when the units were being sold in UPS, that it would not appear on the Surveillance Report?

MR. HOLLAND: That is correct. It would be

removed.

CHAIRMAN WILSON: Even though it may be in rate base?

MR. HOLLAND: That's correct.

CHAIRMAN WILSON: Okay.

MR. HOLLAND: We would only conclude in the Surveillance Report that which is actually being used to serve the retail customer. (Pause)

Q (By Mr. Holland) Mr. Dawson, to the extent that the 63 megawatts is being sold in UPS, would there, in fact, be times when the units were nevertheless available to serve the retail customers?

A That's right. Under the UPS agreement the units are available to run and, in fact, running, and the UPS customer does not schedule the capacity, then that capacity and associated energy is available on the system and can be dispatched to the territorial customers.

The history of the UPS agreement shows it has happened a substantial number of times.

Q In response to a question that Commissioner Gunter asked relative to allocation of costs, are some of Gulf's A&G costs and general plant costs allocated to the UPS capacity that Gulf has sold off-system?

A Yes. It is.

Q You were asked a question by Commissioner Gunter relative to the differences between the in-service dates of Units 1 and 2 at Plant Daniel. How many years difference was there? I think you stated you thought it was two. Have you determined a different number?

A During the break, it was pointed out that Daniel 1 became commercial in 1971, Daniel 2 in 1981. So the difference is four years rather than a two.

Q I think you said '71?

A '77 to '81, four years.

MR. HOLLAND: Okay. That's all I have, Mr. Chairman.

CHAIRMAN WILSON: Commissioner Gunter, do you have any questions?

COMMISSIONER GUNTER: Yeah, could I have? I apologize. Any time you run by the office the telephone rings and sometimes it's tough to get away.

COMMISSIONER EASLEY: He was getting ready to do the chart. We were waiting for you on that.

COMMISSIONER GUNTER: Okay, you can go ahead and do the chart and then I'll inquire after that.

COMMISSIONER EASLEY: You don't have to lean into that microphone, either, Mr. Dawson. It's picking up very strongly.

WITNESS DAWSON: Thank you. What I wanted to do is try to explain the difference with a picture. I understand we would make available these pictures as a late-filed exhibit. I understand pictures sometimes are a lot better than the words, even though they're a med at the same thing.

What I tried to describe before lunch was the output or the typical cost curves for a generating unit. What I have shown is the axis that we use where the horizontal would be the output of the unit expressed in megawatts. The vertical would be a cost component expressed in dollars per megawatt hour or mills per kilowatt hour, they're the same.

In taking sort of a hypothetical, assuming this is Scherer 3 and saying the lower straight line is the incremental cost curve of that generating unit. And it shows as you produce more output from that unit that the incremental cost increases from that unit.

The other curve on here is an average cost curve; and it shows that the more you produce out of a unit, the lower the cost is, and it's actually curved downward.

The reason, in part, for that is when you have the unit just starting up and just shutting down, you're putting in this No. 2 oil, you're putting in

gas. To just keep the thing stable, you're not really producing kilowatt hours or you're producing very few kilowatt hours. So you have costs divided by essentially zero, which means the average cost at that point is real high. As you spread that start-up cost over more and more units of generation, you can see that the average cost of generation out of that unit declines.

COMMISSIONER GUNTER: That's a fuel efficiency curve, isn't it? That upper curve? Is that to some point the machine, you get more and more out of the machine at a lesser cost the harder you run it, up to some point of where you reach that diminishing return curve on any machine, don't you?

WITNESS DAWSON: Well, this is the maximum output of the unit, essentially, where these two curves meet.

COMMISSIONER GUNTER: In other words, your fuel cost would continue to decrease after you reach some optimum point on a machine? Is the most optimum utilization of one of these machines 100% or a little less than 100%?

WITNESS DAWSON: Probably a little less than 100%.

COMMISSIONER GUNTER: That's the point I was

talking about. When you get to that point, it's a little less than 100%; and you can keep pouring fuel in it up to the maximum ability of the machine to receive it. But you don't gain any efficiencies beyond that point, is that right?

WITNESS DAWSON: No more efficiency and there's no more output left in the unit.

COMMISSIONER GUNTER: That's what I'm talking about.

WITNESS DAWSON: But we have some 135 units on our system that have cost characteristics just like this, whether they're nuclear units, whether they're fossil-fired, coal-fired units, or whether they're combustion turbines.

What we have done in that part that says base energy is come in and probably just assume that the unit would run at a 65% capacity factor for the year and figured the heat rate at that point, the cost of fuel, and said if the unit ran at that point, essentially the average cost would be, and I think it showed about $25 a megawatt hour for Scherer 3. But that unit, once it's on line and the people in Birmingham at the Coordination Center in the computers there look at each of these generating units and look at this incremental cost curve down here to see which

unit picks up.

So on this next one that looks like hen scratching, I have shown load on the system, including any off-system sales or UPS kind of sales. In this case, I picked up the 2898 megawatts that is shown in that block, I think, for '89, just as an example, for Schedule R.

On the vertical, I've shown, once again, cost. And I have just shown, scattered through here, a lot of incremental cost curves for units. And you can see that with inside the solid line, which I have designated as "TL," for territorial load, that the relatively cheaper incremental cost units are inside that box called "territorial load." As a customer would schedule more of the Schedule R, and the load would increase above the territorial load to pick up this 2898, more units would be called on to dispatch and actually produce energy. And I have shown those up here with just little straight lines indicating incremental cost.

You could -- it's these units up here between the solid line and the dotted line that represent those units that would dispatch into this 2898 megawatts of Schedule R. And we've taken through the computer run the incremental cost of all these units, which you can

see I've guessed at, ranging from a low of 18 to a high of maybe 40. But when you average all of that, giving a lot of weight to our units having essentially low incremental cost, that the average of that was shown at about 20 mills, or $20 a megawatt hour. So that this block over a year, if you assumed it it was scheduled every hour, you would have an average for the year of 20. The fact is that in some hours this block could be up here at 40, because you might be selling out of combustion turbines if the buyer would take it.

But if you had the Scherer 3 unit and its incremental costs were in here -- and, remember, its average cost curve would fit sort of like that -- you can see that there would be some hours that the incremental cost would be above the Scherer 3 cost, because there are units that have higher costs than Scherer 3.

Down at the bottom end, you have got your nuclear and hydro. You've got the Scherer unit about in here, and you've got some other units that go out beyond that.

When you get through, what we typically show a buyer -- (Pause while drawing on chart) -- is something that looks like a continuous curve of cost versus output. Instead of having a whole bunch of

little incremental cost curves, we've collapsed it into just lines. And it says that if you buy energy from us on an incremental basis beyond our territorial load, that the incremental dispatch of the system would be out here. So this is a delta load; might be Schedule R, might be Schedule E, it might be economy energy sale. But you pick up that load then you'd have a corresponding or related increase in the incremental cost of our generation.

And that's the reason that you have one set of numbers under base energy rates and you have a different number under Schedule R. Because in the one, you're talking about the average cost of a specific unit. In the incremental on Schedule R you're talking about the composite incremental cost of all the units that would dispatch into that piece of the sale.

COMMISSIONER GUNTER: In other words, he would move on that curve -- your first block you reserve through your dispatching process would be the lowest price electricity delivered to your territorial load?

WITNESS DAWSON: Yes, sir.

COMMISSIONER GUNTER: Then on Schedule R or economy, either one, you would move up that curve to the next increment?

WITNESS DAWSON: Above territorial load.

COMMISSIONER GUNTER: Above territorial load.

WITNESS DAWSON: And it would be higher than the incremental cost that stays on the system.

COMMISSIONER GUNTER: All right. So that, in some respects, is a little bit like a broker system that we have in Florida, only you all's is a whole lot more sophisticated than that. Where that's a buy/sell, you all's is a generation.

WITNESS DAWSON: Ours is a generation and a buy/sell after-the-fact --

COMMISSIONER GUNTER: Sure.

WITNESS DAWSON: And with nonassociated companies, it's clearly -- this TL would represent the territorial load for all five operating companies or the entire Southern Electric System, and then the next increment would be either a Schedule E scale, a Schedule R sale, or some part of a UPS sale or economy energy sale.

COMMISSIONER GUNTER: But those would all always be above the price of your territorial load, is that right?

WITNESS DAWSON: Yes, sir. You would keep these cheaper incrementals on your system. You would dispatch those first into your system; the higher

incrementals would be dispatched and delivered off-system, off the Southern Electric System.

COMMISSIONER GUNTER: Let me ask you a "what if."

WITNESS DAWSON: All right, sir.

COMMISSIONER GUNTER: I think we're all aware of the effects of what Congress is liable to do this year, but there is a piece in here which I found rather interesting in this credit review this month is the reason I keep going back to this one. And on Pages 8 and 9 they begin to talk about clean air cost exposure. And as I go down that, I was trying to find out who all was involved in the utilities' heavy exposure; would be Alabama, Georgia Power is moderate, Mississippi is heavy, and Gulf is heavy. The exposure to clean up, you know, to meet the provisions of the Clean Air Act.

WITNESS DAWSON: All right.

COMMISSIONER GUNTER: Assume, for instance -- and I just pick any of them -- but assume some of the older plants. You know, when you really start looking at it real hard like you all have to look at it -- I say "you all," I'm putting Southern Company in that total basket -- you all have got to look at the possibility of putting a chemical plant -- I prefer that to a scrubber --

WITNESS DAWSON: Yes, sir.

COMMISSIONER GUNTER: -- put a chemical plant and a catalytic removal for NOX.

Looking at the cost of that versus the undepreciated value of a plant and the expected life of a plant -- you know, they start one 40 years old and you begin to look at $250 million on it and it's not going to extend the life, whatever, that judgment has to be made.

WITNESS DAWSON: Yes, sir.

COMMISSIONER GUNTER: If, in fact, you've got a UPS sale out of Scherer, even though Gulf has an ownership of it and you have to build a new plant that's more expensive than Scherer, what do we do then? That sort of -- your territorial expense could be much greater.

See, I'm taking the other side of this argument. Your territorial expense could be much greater than that that you're selling out on unit power sales, is that right; that you've contracted for, the potential exists for that?

WITNESS DAWSON: I can say generally, yes. And the problem I've got with your question is you made a jump from an old, almost fully-depreciated unit with a chemical plant on it, to all of a sudden having to

build a new unit.

COMMISSIONER GUNTER: Or if you put a chemical plant on it, the fixed cost that you would have associated with that generation would make it more expensive, probably, than the cost of some newer, later vintaged generation that you added to your system. Like, certainly, Daniels. By the time you put $250 million for a chemical plant and God knows how much for a catalytic removal of NOX on a plant, all of a sudden the price of your territorial generation, the cost to your territorial load would be up significantly.

WITNESS DAWSON: Well, I think it's very clear --

COMMISSIONER GUNTER: Does that make sense?

WITNESS DAWSON: I think it's very clear that the Clean Air Act is going to visit some extremely substantial cost on utilities and ultimately the ratepayers to clean up that air.

What I think you'll find in the Southern Electric System is that we're trying to develop a very cost-effective compliance strategy. We're considering things like scrubbers. We're looking at fuel switching. We would look at natural gas, if it were a viable alternative.

COMMISSIONER GUNTER: I understand. I was

just trying to look down the road. But I suppose maybe you might find yourself in the same situation and that it wouldn't just occur for Gulf or Mississippi or Alabama or Georgia. But you've probably got provisions to your contracts that you might have to pick some of these plants, too, and so the price would escalate throughout the system and not just me looking knotholes at Gulf?

WITNESS DAWSON: Well, that's, to me, one of the wild cards in this Clean Air Act. You were right yesterday when you said that we look at the House, the Senate. We sort of think we know what's going going to come out of that process. What we don't know is what are the individual states going to do. Part of our compliance strategy would be the bubbling of the Southern Electric System as opposed to Gulf, or any of the operating companies complying just by itself. What we want in this process is, one, to meet the environmental laws, to be clean. And we think we're doing that. We want to do it in a flexible way.

My personal concern would be that we somehow get trapped into the notion that we have to put on these chemical plants that would run costs up; with or without UPS sales, it's going to do that.

You've got to be careful of that; and we want

to avoid that if we can be in compliance, avoid the chemical plant and maintain the flexibility because things will change. Just like you're concerned that a nuclear moratorium is probably unlikely; you could say that. To me, it's sort of unlikely the Mississippi river is going to dry up. It's unlikely to me that wall in Berlin would come down. It was unlikely before 1978 that people would say you cannot use gas in new units.

We're trying to say that to maintain that flexibility, to avoid this cost run-up at chemical plants, we want to maintain that flexibility, because I believe five years, when you see the costs come out, you're going to see a change in the regulation.

COMMISSIONER GUNTER: Let me ask you one more rabbit-chasing question. Have you all given thought to how you're going to get 20 regulators together, or four states together, when you start that bubbling concept? We can put it in another docket. That's just rabbit running. Have you all thought about that?

WITNESS DAWSON: Yes. I'd like to answer that as, there's some thought given to that; there's some thought how to get three Commissioners together today. (LaughterL)

COMMISSIONER GUNTER: Thank you. I don't

have anything else.

WITNESS DAWSON: I mean, in terms of a good decision.

COMMISSIONER GUNTER: Thank you. I understand.

CHAIRMAN WILSON: Any further redirect?

MR. HOLLAND: (Indicates negatively.)

CHAIRMAN WILSON: Thank you very much.

COMMISSIONER EASLEY: That chart helped.

CHAIRMAN WILSON: We might as well give the charts a number. That would be 590.

(Exhibit No. 590 marked for identification.)

CHAIRMAN WILSON: You may be excused. Appreciate it.

(Witness Dawson excused.)

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CHAIRMAN WILSON: Call your next witness.

Is there any reason for us to make this (indicating) an exhibit or designate it anything? Does anybody feel like that's necessary? Steve?

(No response.)

MR. PALECKI: Staff would move 589 into evidence.

CHAIRMAN WILSON: Without objection, 589 is admitted into evidence. The others are late-fileds,

are they not?

MR. HOLLAND: That's correct.

(Exhibit No. 589 received into evidence.)

MR. STONE: Commissioners, while Mr. Lee is setting up, during the lunch break I handed out Exhibit No. 550, which was requested of Mr. Scarbrough, and I placed IT at everyone's station and handed them out to the parties, and I wanted to make sure everyone was aware that had taken place.

CHAIRMAN WILSON: Okay, we've got it.

MR. STONE: I do not believe Mr. Lee has been sworn.

CHAIRMAN WILSON: Would you raise your right hand, please?

(Witness Lee sworn.)

COLEN R. LEE

was called as a witness on behalf of Gulf Power Company and, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. STONE:

Q Would you please state your name and occupation for the record?

A Colen R. Lee, General Manager of Power Generation. I work at 500 Bayfront Parkway, Pensacola,

Florida.

Q And you are the General Manager of Power Generation for Gulf Power Company?

A That's correct.

Q Are you the same Colen R. Lee that has prefiled direct testimony in this docket dated, December 15, 1989?

A I am.

Q Do you have any changes or corrections to that prefiled direct testimony?

A I do not.

Q If I were to ask you the questions contained in that testimony, would your responses be the same?

A They would be.

MR. STONE: Mr. Chairman, I ask that Mr. Lee's direct testimony be inserted into the record as though read.

CHAIRMAN WILSON: Without objection, it will be so inserted into the record.

MR. STONE: Mr. Lee's exhibits have previously been identified and stipulated.

(Exhibit Nos. 122 through 132 previously stipulated into evidence.)

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1427

GULF POWER COMPANY

Before the Florida Public Service Commission
Direct Testimony of
Colen R. Lee
In Support of Rate Relief
Docket No. 891345-EI
Date of Filing December 15, 1989

Q. Please state your name, address and occupation.

A. My name is Colen R. Lee, and my business address is 500 Bayfront Parkway, Pensacola, Florida 32501. I am Director of Power Generation for Gulf Power Company.

Q. Please briefly describe your educational background and business experience.

A. I graduated from Mississippi State University, Starkville, Mississippi, in 1965 with a Bachelor of Science Degree in Mechanical Engineering. I joined Gulf Power Company in 1965 as a Staff Engineer. I have held various positions with Gulf including Field Engineer, Plant Engineer, Plant Superintendent and Plant Manager. In 1984, I assumed the position of Director of Power Generation and presently serve in that capacity.

Q. Have you prepared an exhibit that contains information to which you will refer in your testimony?

A. Yes.

Counsel: We ask that Mr. Lee's Exhibit, comprised of 4 Schedules, be marked for identification as Exhibits 122-125 (CRL-1).

Q. Are you the sponsor of certain Minimum Filing Requirements?

A. Yes, those which I am sponsoring are listed on Schedule 4 at the end of my exhibit. To the best of my knowledge, the information in these Minimum Filing Requirements (MFRs) is true and correct.

Q. What is your area of responsibility within Gulf Power?

A. I have the responsibility of ensuring that Crist, Scholz, Smith, Daniel and Scherer Electric Generating Plants are efficiently and effectively operated and maintained. I also have the responsibility of ensuring the effective and efficient use of Southern Company Services and support personnel in the Power Generation sections: Construction, Engineering, Performance, Planning, and Safety and Training personnel. The Power Generation Department is part of the Power Generation and Transmission Department for which Mr. Earl B. Parsons, Jr., has overall responsibility.

Q. Have you previously filed Direct testimony before this Commission?

A. Yes, I have.

Q. What is the purpose of your testimony in these proceedings?

A. The purpose of my testimony is to support the 1990 production Operation and Maintenance (O & M) Budget. Also, I will provide information on benchmark variances relative to the plants. Finally, I will demonstrate that Gulf's Power Generation Department is productively, economically and effectively managed and explain how we accomplish this task.

Q. Please summarize the 1990 Production Operation and Maintenance Budget.

A. The 1990 total Production O & M Budget, including Plants Daniel and Scherer, less fuel and purchased power, is $52.7 million. This amount is $26,098 less than the 1989 prior year O & M production expenses. This decrease is primarily due to expenses related to turbine and boiler inspections.

Q. How do the 1990 budgeted production operation and maintenance expenses compare to the 1990 benchmark amount?

A. These expenses are $4.3 million over the 1990 benchmark, which is based on the 1984 allowed dollars. Gulf believes that 1984 was not a realistic year. If the allowed amount from the more realistic base year of 1983 is used, then Gulf would be $2.5 million under the 1990 benchmark for production O & M, less fuel and purchased power.

Q. What items in the Power Generation area are over the benchmark based on 1984 allowed as a base year?

A. There are six major items which are over the 1990 benchmark. The justifications for the variances are located in MFR C-57; however, I would like to provide further explanation for some of these variances.

Gulf is over the 1990 benchmark for territorial turbine and boiler inspections by $202,000. In 1984, Gulf was allowed $4.1 million per year for turbine and boiler inspections. Two units which are on a five-year inspection cycle are scheduled for 1990. These inspections are being performed on their regular inspection cycle and the amount included for 1990 is the amount anticipated to be spent for these turbine

and boiler inspections. I will address turbine and boiler inspections again later in my testimony.

The 1990 Plant Daniel O & M Budget, less fuel, is $646,000 over the 1990 benchmark. There are three major reasons for this difference. First, the amount budgeted for turbine and boiler inspections exceeds the benchmark by $477,000. In 1984, Plant Daniel had a minor component inspection scheduled on Unit 1. For 1990, Plant Daniel is scheduled to perform a major component inspection on Unit 1. Second, Plant Daniel was not able to meet environmental standards concerning particulate emissions. Unsuccessful efforts were made to modify equipment to achieve compliance. In 1987, Plant Daniel began adding sodium sulfate to coal in an attempt to improve precipitator performance to achieve compliance. The sodium addition has thus far proved successful and is expected to continue in the future. Lastly, additional ash pond capacity at Plant Daniel is required to maintain continued operation. The original plant design planned use of land west of the plant for ash pond storage. Because of environmental laws concerning wetlands and ash pond construction enacted since the construction of Plant Daniel, an ash pond expansion is not possible. Therefore, Plant Daniel is proceeding with the construction of an ash landfill.

Beginning in 1990, ash from the existing pond will be excavated and hauled to the new ash landfill for permanent storage.

The production area is also over the 1990 benchmark by $853,000 because of additional personnel and salary increases. Since the 1984 Rate Case, Gulf has added maintenance personnel, which were supported by the Commission's 1983 management audit of Gulf. In 1985, Gulf began an extensive organizational review to determine the most cost effective and productive organizational structure. During this review, each position in the organization was evaluated and justified. In 1987, as a result of the organizational review, the entire Electric Operations Department under Mr. Parsons was reorganized from the study's findings. The Commission's findings and recommendations of the 1983 audit were an integral part of the Department's organizational review.

Plant Smith is $635,000 over the 1990 benchmark because of ash hauling expenses. Like Plant Daniel, Plant Smith's ash pond was nearing capacity, a situation aggravated by new water retention requirements imposed by environmental regulations. Efforts to expand the ash pond failed because of environmental constraints. Therefore, in 1986, Gulf

completed construction of an ash landfill site. Since 1986, ash has been excavated from the ash pond and hauled to the landfill for permanent storage. This disposal method will continue for the life of the plant.

Plant Crist is $289,000 over the 1990 benchmark due to expenses related to condenser and cooling tower chemical treatment. Plant personnel add chemicals to the circulating water on Crist Units 6 and 7 to prevent the corrosion of the copper condenser tubes and also to prevent condenser tube failures. By adding these chemicals, we can extend the life of the condenser tubes and also help prevent outages because of condenser tube failure. These chemicals also prevent the condenser from fouling which, if not done, would result in deteriorated unit heat rates.

Finally, the production area is $684,000 over the 1990 benchmark because of duct and fan repair. These costs are for maintaining the primary air, secondary air, and flue gas ducts. Also included in these costs are induced draft, forced draft and primary air fans along with the associated fan drivers and dampers. All of this equipment operates in an extremely harsh environment. Due to this harsh environment, this equipment requires frequent maintenance. If this

equipment were to be replaced with new equipment, the cost and extended outage time would be high and the high maintenance costs would return within a few years.

Q. How does Power Generation ensure that its Operation and Maintenance Expense Budget is effectively controlled?

A. Each month the O & M Budget Comparison Report is reviewed for each location. Each location within the department prepares a detailed explanation of each account which has a budget deviation above or below a set variance. Where possible, the responsible location takes corrective action.

Q. How is goal setting used to ensure that Gulf's territorial generating plants are efficiently operated and maintained?

A. Plants Crist, Smith and Scholz establish yearly goals in critical performance areas. Departmental goals for heat rate, capability, automatic generation control availability and equivalent availability are then established from the individual plant goals. The importance of meeting or exceeding all goals is stressed to all personnel within the department. Individual employee evaluations are based in part on meeting these goals. The plants' progress in meeting

these goals is reported on a monthly and quarterly basis. Year-end results of the goal setting process for the plants and for departmental support personnel are reported in the Power Generation Annual Progress Report. This report also highlights departmental endeavors and achievements for the year and identifies major tasks and goals to be accomplished in the following year.

Since 1984, the Power Generation Department's overall progress toward attaining established goals has been excellent. In every year, the majority of the goals have been met and, in most cases, exceeded. In areas where the goals were not met, departmental personnel determined the reasons for the deficiencies and placed increased emphasis where necessary to correct the deficiencies.

Q. Please discuss the goals for the Power Generation Department in 1989 and 1990.

A. Schedule 2 of my exhibit summarizes the 1989 and 1990 department goals for heat rate, equivalent availability, capability, and automatic generation control availability. Also included in this schedule are goals and actual results for 1980, 1984 and 1988. We try to set goals that are realistic and challenging.

Q. **What automated systems are being used in the electric generating plant maintenance planning and scheduling process?**

A. The Power Generation Department is utilizing four automated systems in the plant maintenance planning and scheduling process. The following computerized systems are in use at Plants Crist, Smith and Scholz:

The Production Plant Management Information System (PPMIS) is an on-line work order system which provides plant management and supervision accurate and timely information to assist in organizing, planning and executing maintenance tasks. PPMIS records also provide a data base that is used to evaluate plant equipment for overhauls or replacements.

The Communication Oriented Production Information and Control System (COPICS) is an on-line inventory control system. This system, combined with an on-line purchasing system, provides the department an improved method of managing the use, size and, ultimately, the cost of the plant material inventory.

The Plant Identification System of Accounts (PISA) provides operation and maintenance costs on a monthly basis for each electric generating plant unit as well as for designated equipment. This information is used for cost studies and budgeting purposes.

MAINPLAN is a computer program used by Southern Company Services to perform economic scheduling of maintenance outages for the Southern electric system. The Power Generation Department coordinates the establishment of each plant's unit outage schedules through Southern Company Services. The MAINPLAN outage schedule evaluations are used in the Southern electric system's energy budgeting program, as well as, in the maintenance scheduling program.

Implementing these automated systems took time and significant effort. As a result of this effort, Gulf's plants are now realizing the benefits of these systems in areas such as improved work order selection for forced outages, work order planning for scheduled outages, and more accurate retrieval of maintenance history for equipment evaluation.

Q. What steps have been taken to improve productivity in the maintenance process?

A. The PPMIS system presently measures the work performance of approximately 330 operations and maintenance employees at Gulf's three territorial plants by generating Work Measurement Reports. These reports are generated monthly, quarterly, and also upon special request of plant management. The reports are

utilized to identify backlogged work and efficiently plan the accomplishment of the backlogged work. These reports also track maintenance personnel productivity.

To become more productive, Gulf also established the position of "Scheduler" at Plants Crist and Smith. Designated personnel in this position are assigned the tasks of writing maintenance procedures and identifying material for high cost and repetitious jobs. In a successful effort to improve the planning process, these personnel developed a modification to PPMIS which would permit the procedures to be put into the system utilizing the Statistical Analysis System. When a planned work order is dispatched, the associated procedure is automatically printed at the same time. These scheduling personnel also reviewed the COPICS System to see if the system could aid in identifying and issuing material for planned work orders. The scheduling personnel determined that, with modification, COPICS could perform the task. Special planning screens were then developed and COPICS was implemented at Gulf's three plants.

COPICS was linked with PPMIS by the use of a PPMIS "router" feature. While the two programs do not interchange information, scheduling personnel can use the PPMIS terminal and switch easily from the PPMIS

work order screens to the COPICS inventory control screens. When planning a PPMIS work order, scheduling personnel can call up a COPICS bill of material for the equipment needing repair. The repair parts can be specified on the COPICS material listing screen created for a specific work order. Scheduling personnel then notify warehousing personnel to print a pick ticket for the work order material. The pick ticket enables the warehousing personnel to locate the material in the most efficient order. After all the material is located, the warehousing personnel enter the issued quantities on the applicable COPICS inventory screen. The COPICS system performs an automatic inventory balance update. The warehousing personnel then deliver the work order material to a designated location in the maintenance shop for maintenance personnel to pick up and use on the job.

Q. What other productivity improvement programs has Gulf implemented?

A. Gulf is committed to performing the work necessary to accomplish the Commission's intent of reducing customers' electrical energy costs by instituting the Generating Performance Incentive Factor (GPIF) program.

The GPIF program has resulted in approximately $67 million of estimated fuel savings to our customers since its inception in 1980. During 15 reporting periods, Gulf has received approximately $1.6 million in rewards as a result of its efforts.

Gulf has routinely done performance testing on all of its units. However, due to the recent availability and lower cost of computers, Gulf has begun testing the entire turbine cycle on each coal-fired unit utilizing a "limited" American Society of Mechanical Engineers performance test code for steam turbines. Before the computers were readily available, this type of testing would require 40 people to regularly take data during a test. However, with the computer, all data is taken and stored at a set time interval and displayed during the test. The computer-aided testing can be done by three people with much greater accuracy and at much less cost.

Gulf performs testing, at least yearly, on the high pressure and intermediate pressure sections of our turbines on each coal-fired unit to monitor the degradation in the turbines between inspections. This testing allows Gulf's personnel to assess the present condition of our units.

Gulf has worked to improve our system heat rate. The overall heat rate for Gulf in 1980 was 10,909 btu/kwh. Since 1980, Gulf's overall heat rate has improved by 273 btu/kwh to 10,636 btu/kwh by the end of October 1989. When equipment such as turbine blades, air heater baskets, and feedwater heaters were being replaced, Gulf's personnel evaluated the replacements so that the new equipment would optimize performance. With the PPMIS system, work orders on items such as steam leaks in valves and improperly sealing valves were ready to be done as soon as the unit came off line.

Gulf has also been placing more emphasis on unit operation and training of our employees in order to improve the heat rate. Gulf's personnel have attended comprehensive training courses on heat rate improvement. Gulf has placed increased emphasis on maintenance of pulverizers, duct insulation, and burners and on lowering carbon in ash so that optimum heat rate can be maintained. Gulf's commitment to improved heat rate has proved successful and has lowered costs to Gulf's customers.

Gulf, as an affiliate of the North American Electric Reliability Council (NERC), participates in the Generation Availability Data System (GADS). GADS

is a well-maintained, accurate, dependable and comprehensive data base capable of providing reliability and availability information. Companies owning over 91 percent of the installed generating capacity in North America participate in GADS. All of Gulf's generating units are included in the GADS program.

For each event affecting a unit's availability, the information recorded includes the type of event, the time and duration of the event, the capacity loss as a result of the event and the cause of the event. With this detailed information, availability performance indices such as Equivalent Availability Factor, Forced Outage Rate, etc., can be calculated. Gulf uses the GADS data to monitor and compare the availability performance of our units and major pieces of equipment, such as pulverizers, boiler tubes, etc. The GADS data helps us evaluate the need for maintenance or replacement of these major components. Generation planning studies also use the GADS data to accurately predict the expected generation.

Q. What has Gulf done to improve generating unit equivalent availability?

A. Gulf has worked extremely hard to improve the availability of our units. Unit inspections and equipment replacements have increased the equivalent availability from a low in 1985 of 83.7 percent to the present level of 88.7 percent for year-to-date ending October 1989. Gulf performed turbine and boiler inspections on Crist Unit 5, Smith Unit 2 and Scholz Unit 2 in 1984; Crist Units 1, 2 and 6 in 1985, with Crist Units 1 and 2 overlapping into January 1986; Crist Unit 7 in 1986; Scholz Unit 1 in 1987; Crist Unit 4 and Smith Unit 2 in 1988, with Crist Unit 4 overlapping into January 1989; and Crist Units 3 and 5 and Smith Unit 1 in 1989. Equipment replacements such as feedwater heaters, condenser tubes, air heater baskets, steam coils, and combustion controls, which were done at the same time as unit inspections, have also improved the availability of Gulf's units. The old equipment was at the end of its service life and had a high failure rate. By replacing this equipment during scheduled unit inspections, outage time on each unit is reduced.

Q. What is the basis for planning unit outages?

A. Gulf is committed to performing unit inspections which include scheduled spring and fall boiler outages as

well as major turbine and boiler inspections performed in accordance with the equipment manufacturer's recommended inspection cycles. However, there are situations where outages may be rescheduled. Some examples of circumstances that may cause an outage to be rescheduled would be: (1) late delivery of necessary parts, (2) forced outage of another generating unit which necessitates that the scheduled outage be postponed, or (3) the condition of the unit allows the scheduled outage to be deferred.

Q. Has Gulf followed its schedule of planned turbine and boiler outages since 1984?

A. Yes, with one exception. Since 1984, the only postponed turbine inspection has been on Smith Unit 1 because of late delivery of necessary parts. Since Smith Unit 2 was scheduled for inspection in the spring of 1989 and all replacement parts were available, Gulf felt that it was prudent to move the inspection of Smith Unit 2 up by six months to the fall of 1988 and reschedule the Smith Unit 1 inspection for the spring of 1989. This type of planning and scheduling is beneficial to Gulf's customers.

Q. Could you discuss the company's recent history concerning planned turbine and boiler outages?

A. From 1984 to the end of 1989, Gulf will have completed turbine-generator inspections on all of our 11 territorial steam generating units. Schedule 3 of my exhibit shows the scheduled and actual turbine generator inspections. All of our turbine outages have essentially been performed on the scheduled outage cycles and all necessary work was done. Our boiler inspections and repairs have been performed as scheduled unless deferred due to the boiler being in better condition than expected.

Q. What are Gulf's needs for future turbine and boiler inspections?

A. As previously mentioned, Gulf is committed to performing turbine and boiler inspections as scheduled to prevent major damage to our generating units and maintain high levels of availability and capability. As our generating units age, the amount of necessary maintenance will increase. The allowed expense should be increased from the 1990 benchmark of $5.1 million to $5.3 million, which is the amount currently projected for turbine and boiler inspections for 1990.

Q. **How have Gulf's expenditures at the plants affected how well you operate?**

A. As previously mentioned, our heat rate and availability have improved. We know that, as a turbine runs, steam seals degrade and leak greater amounts of steam. Deposits collect on the turbine blades which cause more friction and increase velocity through the turbine stages, causing increased turbine wear. We can see a reduction in the capacity of the unit's output from inspection to inspection. By monitoring the capability of the unit, we can look for pieces of equipment that are causing deterioration and make necessary repairs during unit outages.

Gulf has also made capital expenditures to improve unit operation. In the past, Crist Unit 7 was load-limited due to high turbine exhaust pressure. Gulf evaluated and performed many different changes such as condenser tube replacement, vacuum pump modification, condenser crossover piping modifications and hot-leg blow down from the cooling tower to lower the exhaust pressure. These changes allow the unit to operate at a higher capacity. Since 1980, Crist Unit 7 has increased its net system peak hour capability by 35.0 megawatts (mw). Since 1980, Gulf's three territorial plants' overall net system peak hour

capability has increased by 74.9 mw, with 47.3 mw of this 74.9 mw increase having occurred since 1984.

These capital expenditures are necessary for various reasons, which include, but are not limited to: (1) the replacement of equipment in the plant which has reached the end of its service life; (2) additions, modifications or replacement of equipment due to environmental regulations; (3) replacement of equipment to optimize the heat rate and availability of generating units; and (4) additions of equipment which would improve unit operation.

Q. Please summarize the Production Construction Budget.

A. Included in the Production Capital Budget is the replacement of feedwater heaters, turbine blades, and air preheaters for various units, and coal pulverizers on Crist Units 6 and 7. Many of these projects are necessary because the equipment has reached the end of its service life. All of these budgeted projects are needed to operate more efficiently to serve Gulf's customers.

Q. What is Gulf doing to minimize new construction expenditures?

A. All capital projects are evaluated to ascertain the necessity of performing the work. The process begins at the plant level by plant personnel evaluating existing plant equipment performance and maintenance costs. Where performance has degraded to an unacceptable level and maintenance costs are substantially increasing, replacement of the equipment becomes necessary. New technology, as well as like-kind replacement, is considered and evaluated and then proposed for potential inclusion in the capital budget. Also, additional items not initially in the plant design, new technology, and environmental requirements are evaluated for inclusion.

Each plant prepares their proposed Capital Budget for approval by department management. The approval process includes prioritizing the projects to ensure the most important projects are included in the final budget submitted for Capital Budget Committee approval. Final approval is given by Executive Management.

Q. Why is total plant investment increasing without adding new generation?

During the last five years, equipment replacements have consumed approximately 36 percent of the Production Capital Budget. These necessary equipment replacements

include items such as feedwater heaters, pumps, air heater baskets, etc. In 1965, at the Smith Electric Generating Plant, the circulating water pumps were purchased, installed and added to the continuing property record at an adjusted cost of $152,670. In 1984, due to wear, erosion and corrosion, the pumps were replaced at a cost of $889,000. Substantial cost increases exist throughout all equipment replacements: air heater baskets booked in 1967 at $184,236 cost $279,000 to replace in 1984; coal conduit booked in 1973 at $736,966 required replacing in 1986 for $1,447,000; an air compressor that cost $17,031 in 1965 to purchase and install cost $95,537 in 1986.

The cost of materials and labor to perform any type of work is significantly more this year and in each future year over what the same labor and material cost 5, 10 or 20 years ago. This means any equipment replacement accomplished after a plant is made commercial will increase the original plant investment by the accumulated inflation and cost increases that have occurred over time since the original equipment was booked.

Q. Are the equipment replacements made with identical components?

A. Yes, in some cases. In others, technological improvements and advances in material development, along with material or equipment obsolescence have necessitated changes from the original design and equipment specifications. This has, in general, resulted in improvements in the equipment performance, extention of the equipment's service life and improvements to overall unit performance.

Careful evaluation and investigation by all those involved in equipment replacement projects ensures valid selections. A good example is a high pressure feedwater heater replacement. A new replacement heater will be slightly larger and better designed to eliminate erosion and stress failures that have occurred with the old style heaters. In all cases, the old equipment's design conditions and present operating conditions are evaluated to ascertain what requirements must be specified for the replacement to ensure the new equipment is stronger, more suitable and will exhibit a longer service life.

Q. Can you give examples of capital projects which have improved the performance of Gulf's generating units?

A. Gulf has made numerous changes on our boilers. We have installed new boiler combustion controls on Crist

Unit 4 and Smith Unit 2. The complete new control systems were replaced due to unavailability of replacement parts for the old systems. We replaced air preheater baskets when they were deteriorated. Gulf replaced water wall and superheater tubes on Crist Unit 6 due to numerous tube failures which affected this unit's availability. The Crist Unit 6 economizer section was also replaced with increased surface area, which improved the boiler efficiency.

The Unit 7 reheater tubes were replaced with additional surface area to maintain higher reheat temperatures at lower loads and also reduce the flue gas temperature into the precipitator at higher loads to improve the precipitator collection efficiency. Gulf replaced precipitator wires on Crist Unit 6 and Smith Units 1 and 2. These wires were failing, causing forced outages. New computerized control and monitoring systems were installed on the Crist Units 6 and 7 precipitators to improve precipitator collection efficiency.

Deteriorated duct insulation was replaced on Scholz Units 1 and 2 and Crist Units 4 and 5 to reduce heat losses. Turning vanes were added on Smith Unit 2 at a duct location which had excessive turbulence. These turning vanes reduced draft losses, which in

turn, reduced station service requirements. Other boiler improvements were the replacement of air heater steam coils and coal burners, which improved boiler operation.

Gulf has also made improvements in our turbines. During turbine inspections, deteriorated blades have been replaced with blades having an improved design. Feedwater heaters have been replaced when tube failure rates began causing an availability problem making replacement necessary.

Gulf has made modifications to the condensers on our units. Crist Unit 7 was converted from a multi-pressure condenser to a single pressure condenser which reduced back pressure restrictions. The Crist Units 6 and 7 and Smith Unit 1 condenser tubes were replaced due to an excessive number of tube leaks. The Crist Unit 7 vacuum pumps were modified to increase the vacuum pump capacity. Gulf replaced the circulating water pumps on Smith Units 1 and 2 due to the deteriorated condition of these pumps. Also, a continuous chlorination system was installed on the Smith units to prevent condenser fouling.

Gulf has also made modifications to our cooling towers which improve unit performance. Drift eliminators were replaced with an improved design. As

mentioned earlier, a hot-leg blow down was installed on Crist Unit 7 which allowed for cooler circulating water to the condenser. Other modifications were made to the cooling towers to improve the distribution of circulating water and allow on-line maintenance.

Gulf has also installed, on all of our coal-fired units, piping and valving necessary to perform testing of the entire turbine cycle, as well as high pressure turbine section and intermediate pressure turbine section to monitor the condition of these generating units.

Q. How is your Capital Construction Budget managed?

A. Once projects are approved in our budget, those requiring design are assigned to the Power Generation Engineering section. Those involving identical equipment replacement are handled by the appropriate plant. The plants prepare equipment and installation specifications that are submitted to qualified bidders by our procurement department. Upon receipt, the bids are evaluated and, if accepted, a purchase order is issued to the low evaluated bidder. Plant personnel oversee the installation by the contractor to insure the project stays or budget and is completed on schedule.

The capital budget is based on design, procurement and construction costs and schedules developed by the plant personnel for plant assigned projects and by Power Generation Engineering personnel for projects requiring design. A monthly budget comparison report from plant accounting is reviewed by the responsible group's management and staff. A quarterly deviation report is prepared by the responsible group explaining deviations, and corrective actions are taken to meet the budget.

Q. How do you manage Power Generation expenditures related to Southern Company Services?

A. Each year, Southern Company Services (SCS) submits a proposed budget to Gulf for approval. Included in this budget are expenditures related to the Power Generation area. At the beginning of the budget process, the appropriate SCS personnel will review future needs with the appropriate personnel in the Power Generation Department. Prior to SCS submitting their proposed budget, SCS personnel review, with the appropriate personnel in the Power Generation Department, all Engineering Work Orders (EWO) which affect the production function. During this review, any areas of concern are discussed and resolved with SCS. The SCS

budget is then presented to Gulf's Management for review and approval.

During the budget year, the actual SCS charges by project and EWO are reviewed by the responsible Power Generation Department personnel. Any questions which may arise are discussed by the Gulf and SCS personnel and resolved. After all questions are resolved, the SCS charges are approved by me.

Q. Mr. Lee, will you summarize your testimony?

A. My testimony demonstrates that the Power Generation Department efficiently and effectively manages their O & M expenditures.

I have given additional justifications on O & M benchmark variances for areas within my responsibility. I have presented how we utilize goals and automated systems and other programs to improve the efficiency of the Power Generation Department. We have performed and will continue to perform our planned outages as scheduled completing all necessary work during each outage.

Finally, I have presented how we effectively utilize the production construction budget to minimize production costs and optimize plant efficiency and operation.

Q. Mr. Lee, does this complete your testimony?

A. Yes.

Q (By Mr. Stone) Mr. Lee, would you please -- do you have a summary?

A I do.

Q Please proceed.

A The Power Generation Department at Gulf Power Company has improved and increased its production, operations and maintenance programs. This has resulted in an availability, capability and heat rate improvement. As of October of 1989, our improvements have saved Gulf Power Company nearly $67 million in fuel savings since 1980.

The productivity improvements include on-line computer systems for maintenance, warehousing, so that the proper work orders can be issued and the material available to accomplish the work from these work order systems.

Also included in our productivity improvements are a better cost evaluation system to keep up with the cost of the work orders that is accomplished on routine maintenance and operations. These programs have helped improve the availability from a low of 83.7 in 1985 to a 12-month ending October 1989 of 88.7%. The improvement in capability since 1980 has been 74.9 megawatts. After listening to all the discussions about the 62 megawatts, it makes me

wonder if we hadn't have improved these 74 whether we would be talking about them today or not.

Also, during this time frame the heat rate has been improved by 273 BTUs per kW. This is due in part to the generation performance incentive factor, or GPIF as it's referred to, the Public Service Commission started in 1980.

This has resulted in a reward for Gulf Power Company of $1.6 million, or as stated earlier, approximately $67 million in fuel cost savings in this time frame. This represents about $6.7 million per year improvement for our customers.

All these improvements have been accomplished along with a regular planned turbine and boiler inspection since 1984. At the end of 1989, Gulf Power Company will have completed all of its turbine and boiler inspections. As a matter of fact, Schol 2 and Crist 6 turbine inspections have been completed in 1990.

The steam production budget is $51.5 million, or approximately $4.5 million over the 1990 benchmark. This overage in benchmark is primarily for items that have been initiated since the last rate increase, such as landfill of ash because of limited storage of ash funds. We have also took up items such as your turbine

and boiler inspections that exceed the 1990 benchmark.

The 1990 budget is less than the escalated 1985, '87, '88, and '89 actual, like we said, expenditures, that have been escalated. For our customers to continue to receive reliable, low-cost electricity, it is imperative that the production, operation and maintenance budget be funded on future needs, not on an obsolete and austere 1984 budget.

That concludes my summary.

MR. STONE: We tender Mr. Lee for cross examination.

MR. BURGESS: No questions.

MAJOR ENDERS: No questions.

CROSS EXAMINATION

BY MR. PALECKI:

Q Mr. Lee, I have a few questions on Issue 88, specifically on turbine and boiler expenses. I'd like to refer you to Exhibit 304, which should be in the packet in front of you.

In the last six years, is the average amount spent on turbine and boiler expenses less than the amount that's budgeted, or less than the amount that has been budgeted?

A Just a minute, please. (Pause)

Is that on somebody else's testimony?

Q I thought you were in charge of turbine and boiler expenses.

A That's correct.

MR. STONE: Which exhibit were you referring to?

MR. PALECKI: Exhibit 304.

WITNESS LEE: I show that as Mr. Schultz's exhibit.

Q (By Mr. Palecki) It's Schultz's testimony, but I'd like to question you on the exhibit.

A Okay. (Pause)

Q I'm sorry. I didn't realize you didn t have that exhibit in front of you.

A I have a copy of it now.

Q The question is, and I'm referring specifically to the six-year actual total.

A Okay.

Q In the last six years, is the average spent less than the amount budgeted?

A Is that an escalated total or actual total?

Q It's escalated and it's restated for inflation.

A Well, I might disagree with this form as being improperly calculated, and if we was going to talk about one, I'd prefer to talk about mine.

Q I believe this is a Gulf form. If you look in the upper left-hand corner, it's on Gulf Power Company's stationery and it's one of your --

MR. STONE: This is not correct.

A I think that's misleading. It's typed out that way. It is not on our stationery.

MR. STONE: We had nothing to do with the preparation of this exhibit.

MR. PALECKI: Okay.

Q (By Mr. Palecki) Well, then explain, please, what you see as being mistaken about these calculations.

A The inflation factor does not match any of the inflation factors used in the rate case, to start with.

Q And what is incorrect about the inflation factors that are used, in your opinion?

A In my opinion, the inflation factors were removed from one of our exhibits, and, in fact, it is the customer growth numbers for Gulf Power Company, not inflation numbers.

Q And in what way do these numbers differ from the inflation numbers?

A They are less than. In the Commission's ruling in 1984, production expenses were allowed to be

inflated by a CPI inflation and have no effect by customer growth. Therefore, I see no reason for customer growth to be introduced into turbine and boiler inspections.

Q Well, in referring to your own figures, could you answer the same question as to whether or not the average amount spent is less than the amount budgeted?

A Is the comparison you want the amount budgeted or to the amount that we are allowed in the 1984 rate case?

Q Your average six years escalated compared to the budget.

A Our average six-year escalated compared to 1980 budget. If you use a 1990 figure, would that be -- we have completed the turbine inspections. Do you want to use that?

Q I'm not sure I understand what you're saying.

A The turbine inspections have been completed in 1990. We do have the actual figures for our 1990 turbine and boiler inspections. Do you want to use those numbers, or do you want to use the numbers in 1989, or what numbers do you want to use?

Q Let's have your 1989 numbers.

A 1985 through 1989?

Q Correct.

A Our 1985 through 1989 is $4,796,000.

Q As compared to?

A The benchmark or what we have would be the budget for 1990 -- just a minute -- is $5,340,000.

Q So your average actual is less than your budget?

A That's correct, for those years.

Q Can you explain?

A The amount that we have averaged -- you said the amount that we have averaged, and what we are comparing in those particular years has been for the turbines and boilers that's been in the past and don't necessarily represent all the work that's been in the future. And what we are comparing is, on the budget, is for two particular units, not the turbine and boiler inspections that's been done in the past on an average basis. These particular two turbine and boilers to be inspected are Scholz No. 2 and Crist No. 6. And they would not be included in the average.

A Because chey have been completed in 1990. I offered to, being as we have completed to use them and they would be included in the average at that time.

Q Would these be considered unusual expenses that would cause your budget to be above the six year average?

A Just a minute and I can address that. If we go back and look at our turbine and boiler inspections that we're talking about, and we talk about the amount of turbine and boiler inspections in 1990, the turbine and boiler inspections since 1985; 1986 exceeded the average; 1988 exceeded the average; 1989 exceeded the average, and 1990 will exceed the average.

Q What do you have in the 1990 budget that will cause it to exceed the average?

A We have the turbine and boiler inspections, one of our larger units on Gulf's system in this year, and one of the smaller ones. And the combined amount that's required in the turbine and boiler inspections is greater than the average for the last five years.

Q This next question is in reference to Issue 76. I'd like to have a late-filed exhibit. And if you could give us, since 1984, the total number of positions, including total salaries and vacancies for each year for steam production

A Would you repeat that, please?

Q Since 1984, give us the total number of positions, total salaries and vacancies each year for steam production, and also for each position described, we'd like the date. You've described positions on pages 149 through 152 of MFR Schedule C-57.

A Just a minute, please.

MR. STONE: What were those pages again, Mr. Palecki?

MR. PALECKI: 149 through 152. (Pause) For each position described on those pages, please provide the date each position was approved, when it was filled, who filled it, prior position with the Company, and current salary.

WITNESS LEE: Okay. If you'll go through it all one more time, we had a little difficulty keeping up with everything you wanted on that. There were so many items.

COMMISSIONER EASLEY: Do you have that in written form?

MR. PALECKI: I have it in rough form, and we could write it out in them.

COMMISSIONER GUNTER: Could you just provide that, put it in the form that can be utilized and provide that? That would be the easiest way to make sure that you get back what you're asking for.

COMMISSIONER GUNTER: Give me a short title of what that is.

MR. PALECKI: "Additional Personnel for Steam Production."

COMMISSIONER GUNTER: All right. That will

be late-filed Exhibit 591

(Late-Filed Exhibit No. 591 identified.)

MR. STONE: Commissioner, Mr. Palecki, if I may? For those employees that are not officers, we have tried, valiantly, to protect their privacy by not having their individual salaries set forth in the record, and we understand the Commission's need to have that information. Would it serve the Staff's purpose to have it aggregated by year, so that no individual person's salary would be identified?

COMMISSIONER EASLEY: Would that do it, or a designation of A, B, C or 1,2,3?

MR. PALECKI: By year is fine.

MR. STONE: So we can aggregate the salaries for the positions in the year --

COMMISSIONER GUNTER: That's what I thought he was going to do, was get an aggregated deal.

MR. STONE: Well, he had asked for individuals names and positions, and that's why I was confused.

COMMISSIONER GUNTER: That was 591.

Q (By Mr. Palecki) Mr. Lee, Gulf does business with Stock Equipment Company, is that correct?

A Absolutely.

Q Is Stock's President a member of Gulf's Board

of Directors?

A He is.

Q Does Gulf obtain competitive bids from other vendors when it goes business with the Stock Equipment Company?

A Sometimes we do; sometimes we do not.

Q What is your basis for going to competitive bids?

A Competitive bids, when other people supply the same equipment or services that's available from Stock, we buy from them and we do have competitive bids. But like any other utility company that owns Stock Equipment Company or their feeders, they, when they initially buy the equipment, they usually have to buy a large percentage of the parts that goes with that piece of equipment from the original equipment manufacturer, and that's the position we're in with Stock Equipment.

We have a large amount of Stock Equipment that was purchased, prior to Mr. Joe Tannerhill becoming a member of our Board, or prior to him becoming President of Stock Equipment Company.

And so we have to keep this equipment in service and in operations to measure the fuel to several of our boilers, and to operate the feeders that

supply the coal to the boilers for our production of electricity. And it requires that we buy it from the original equipment manufacturer.

Q So is it your testimony here today that every piece of equipment that you've bought from Stock Equipment Company, that you haven't had a competitive bid on, is unavailable from other suppliers?

A To my knowledge, there has none been bought from Stock Equipment that the equipment of equal value is available from other vendors, or equal quality.

Q How do you know that it's of equal --

A Equal quality, I used the wrong word.

Q Couldn't you put that in the bid specifications when you're requesting bids, the level of quality that you're requesting?

A One of the examples that we use is the belts that's on the feeder are available from other vendors and we do bid those out, and some of the equipment that's not available from the other vendors and we cannot bid it out

Where we originally purchased the equipment it was all competitive bid.

MR. PALECKI: We'd like a late-filed, consisting of all purchases from Stock Equipment Company, for which there were no competitive bids over

the last six years. And we'd like that late-filed to describe the piece of equipment and the -- as precisely as possible.

COMMISSIONER GUNTER: That will be late-filed Exhibit 592.

(Late-Filed Exhibit No. 592 identified.)

Q (By Mr. Palecki) These next questions concern coal pulverizer. Do your O&M expenses for coal pulverizers or, "grand millions" as they are sometimes referred to, vary with the kilowatt hours generated? Or in other words, do their expenses vary with usage?

A Yes, they do.

Q And do the O&M expenses for maintenance of cooling towers vary with usage or kilowatt hours generated?

A Just a minute. (Pause) Are you talking about the expense for maintenance or operations?

Q Both, operation and maintenance expenses.

A The amount of that can vary with operations, but the amount of maintenance normally varies very little with the amount of generation.

The operation cost normally varies considerably with the amount of generation, and also on the conditions of the make-up water that goes to these cooling towers. (Pause)

Q My final questions concern the Plant Daniel property. When was this property purchased, including the wetlands?

A Of course, when you purchase property for a plant it's over a large period of time. The majority of it was purchased -- was completed around 1972.

Q When you say, "over a large period of time," what period are you talking about for the Daniel plant?

A I don't have the exact period of time, but like I said, the majority of it was purchased in 1972.

Q We'd like you to provide us with a late-filed, which will show the dates of purchase of the entire amount of the property, including the wetlands.

COMMISSIONER EASLEY: Was there not already a late-filed on this, or have I lost track?

MR. PALECKI: I believe that this question was referred to Mr. Lee by one of the other witnesses.

COMMISSIONER EASLEY: Oh, okay. That's what it was. Thank you.

COMMISSIONER GUNTER: I think Mr. Parsons referred that to Mr. Lee.

COMMISSIONER EASLEY: I knew it had been asked, I just didn't remember Leroy got it.

MR. PALECKI: Can we have a number on that?

COMMISSIONER GUNTER: Late-filed 593.

WITNESS LEE: I believe the question on this was property held for future use, just recently, wasn't it?

COMMISSIONER EASLEY: Yes. That was all part of it.

WITNESS LEE: We maybe could handle it without a late-filed, if you wanted to ask your question.

Q (By Mr. Palecki) Do you have the information?

A That particular one we don't, but the property that we're talking about, for land held for future use, is a small amount of land. And I do have some information on it.

Q If you could give you the information on that it might obviate the need for the late-filed.

A I believe the property we're talking about is land held to future use, $61,000, is that correct? And then that property that's held for future use amounts to 135 acres of property that will be used for ash land filling. And it is not wetlands.

COMMISSIONER GUNTER: Let me see if I can help.

Mr. Lee, there was -- I think this thing in

question was at the Plant Daniel site, that's one you're talking about now?

MR. PALECKI: That's correct.

COMMISSIONER GUNTER: The Plant Daniel site. There's been 1,400 acres identified as wetlands. Are those 1,400 acre in the account of land being held for future use?

WITNESS LEE: They are not.

COMMISSIONER GUNTER: Okay.

WITNESS LEE: I think they should be held in 101, which is land in use, some portion of them for a buffer zone around the plant. Because regardless of whether it's classified wetlands or not, you're not going to let somebody else's property come right up to your railroad tracks or right up to your coal pile, which would occur if these were not there. I think the property has been wrongly classified as nonutility property.

COMMISSIONER GUNTER: In today's environmental climate that we find ourselves in, regardless of who owns it, there will not be anybody going to be living up next to your rail lines, and what have you, unless they got feathers and long skinny legs.

WITNESS LEE: My point was, though, Mr.

Gunter, is you're going to have to have a buffer zone anyway. Just because it's classified as wetlands, we bought the property originally for an operating plant, and you would have had to buy property, if it didn't happen to be wetland, you would have had to buy other property.

And I can't see the reason for having to move it all to nonutility property. That happens to be where it is classified, but I think it's incorrectly classified. I'm not an accountant, and I don't know the terms, but that's my personal opinion.

COMMISSIONER GUNTER: Does that obviate the needs for your late-filed?

MR. PALECKI: Yes. I think we can remove that late-filed.

I have no further questions. But on the previous late-filed, concerning the equipment purchased from the Stock Company, we would also like the year of purchase of the equipment, the cost of the equipment, and the detailed description of what the equipment is for.

COMMISSIONER GUNTER: Have you got any questions?

MR. PALECKI: And we have no further questions.

COMMISSIONER GUNTER: Mr. Lee, the only question I have is on Issue 99. I'm just not able to make a determination of what the fan and duct repair is in excess of a million dollars. What is that that you all are talking about?

WITNESS LEE: Mr. Gunter, that takes into consideration all your forced draft fans, your primary air fans, your duct work, all the way from the fans to the boiler and from the boiler to the air preheaters. From the air preheaters to the precipitators, from the precipitators to the stack. This includes every fan, your ID fans and all of them. It's a large portion of your generating plant that is exposed to your combustion gases.

COMMISSIONER GUNTER: I wasn't able to determine what that was from the way the issue was couched in there. And what this is is a rehab program?

WITNESS LEE: It's an ongoing program because the corrosion is a corrosion environment and also the other. And this is one item that was pulled out of the 512 Account and picked as one being above budget where the entire 512 Account is well under the benchmark.

COMMISSIONER GUNTER: Yes. All right. Redirect?

REDIRECT EXAMINATION

BY MR. STONE:

Q Thank you. Mr. Lee, first, since we were most recently on it, on the wetlands at Plant Daniel, have those 1400 acres been classified as wetlands when we purchased the property?

A No, they were not.

Q So that classification, it has occurred since the property was put in use as a buffer zone?

A Would you restate that?

Q What was the date that we purchased that property, the 1400 acres?

A 1972.

Q Do you know when it was classified as wetlands?

A Just a minute. (Pause) August of 1986.

Q And did I understand your testimony to state that this particular portion of the property is considered buffer zone for the plant?

A In my opinion, that's what it would be, yes.

Q You were asked about the Company's average actual turbine and boiler expenses from 1985 to 1989.

A Yes.

Q And I believe in response to that you also gave the Commission the 1990 budget for turbine and boiler expenses, which is $5,340,000, is that correct?

A That's correct.

Q When were those expenses -- when were the turbine and boiler inspections which those expenses attached to scheduled to be performed at Gulf Power?

A Those were scheduled to be performed in 1990 and it happened to be the same schedule that we had in 1984 in the last rating case.

Q And when, during 1990, were they scheduled to be performed?

A They are scheduled -- they were scheduled to be performed and have been completed in the spring --, well, prior to the summer load of this year.

Q Do you have the actual figures for 1990 turbine and boiler expenses at Gulf Power Company?

A Yes, I do. They're $6,977,000.

Q And I want to make sure I understood your earlier testimony. You were asked whether or not, or I believe you stated in response earlier that the actual expenses for 1986, '88 and '89 all exceeded the average of the expenses for the period?

A Yes, sir. That's very simple. Because in 1987, we only inspect Scholz No. 1, and it was only $800,000. So when you throw one year of $800,000 in with the other, it kinds of throws the average off.

Q You were asked some questions about Stock

Equipment Company. Are you aware of when Mr. Tannehill became a member of the Board of Directors of Gulf Power Company?

A I am not. Just a minute, we may have that. (Pause) He became a Director in 1985.

Q Have you --

MR. VANDIVER: May I inquire as to what document he's reading from? Is that part of his exhibits?

WITNESS LEE: Yes, this is part of my testimony, rebuttal testimony, on Page 12.

Q (By Mr. Stone) Mr. Lee, have you had occasion to review the purchases that Gulf Power has made from Stock Equipment Company since Mr. Tannehill became a member of the Board and compared that to earlier periods?

A Yes, we have. We have looked at the figures for prior to and after Mr. Tannehill. And the average expenditures for the three years prior was $267,000. In the four years after, it was $226,000 per year.

MR. STONE: That's all we have for redirect.

RECROSS EXAMINATION

BY MR. PALECKI:

Q As far as the last question concerning Mr. Tannehill, do you know whether Mr. Tannehill had an

interest in Gulf at the time prior to becoming a member of the Board of Directors?

A Had an interest in?

Q An interest in.

CHAIRMAN WILSON: You mean on the stock?

Q Do you know whether or not he owned any -- excuse me?

CHAIRMAN WILSON: Do you mean he owned common stock?

MR. PALECKI: Yes.

A No, I do not know whether he did or not.

Q I have just one final question.

CHAIRMAN WILSON: What form could interest take.

MR. STONE: He could not have owned stock in --

CHAIRMAN WILSON: He could own stock in the Southern Company.

MR. STONE: Right.

MR. PALECKI: In the Southern Company.

CHAIRMAN WILSON: But that's it.

Q (By Mr. Palecki) Do you know?

A No. I do not know.

Q So you don't know whether or not he may have had an interest in the Company when these pieces of

equipment were bought?

A I do not know. I do know that I had a lot to do with several of the purchases, and it didn't make any difference in my decision and I didn't look it up or not before I made the decision.

Q I would like to ask you one question about your testimony at Page 7. There's a $289,000 figure for chemical treatment to Crist Units 6 and 7. What is that?

CHAIRMAN WILSON: Haven't you already had an opportunity to cross this witness? Is this?

MR. PALECKI: I just had --

CHAIRMAN WILSON: Is this re-recross, or?

MR. PALECKI: I'm sorry, it slipped through my direct, I didn't have my cross.

CHAIRMAN WILSON: How many questions do you have?

MR. PALECKI: I just wanted to know what the chemical was and just wanted to ask why it was, how that price was incurred.

WITNESS LEE: I believe the information that you're requesting is on the Schedule C-57, Page 43 of 94, and on Page 42 of 94.

MR. STONE: For ease of the Commission's reference, that would be on Page 181 of the C

Schedules, beginning at Page 181 of the C Schedules, using the Bates numbering system at the bottom of the page.

MR. PALECKI: Thank you.

COMMISSIONER GUNTER: All of his exhibits have been stipulated and we have two, three late-fileds? Two late-fileds.

MR. STONE: Two late-fileds.

CHAIRMAN WILSON: All right. 591 and 592. All right, no further questions, thank you very much, you may be excused. Call your next witness.

(Witness Lee excused.)

MR. STONE: Call Mr. Howell.

May we take about three minutes?

CHAIRMAN WILSON: Yes, we'll take five minutes while we rearrange here. This will be a real five-minute break.

(Brief recess.)

- - - - -

CHAIRMAN WILSON: Mr. Howell, have you been sworn in?

WITNESS HOWELL: Not for this docket.

M. W. HOWELL

was called as a witness on behalf of Gulf Power Company and, after being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. HOLLAND:

Q Mr. Howell, would you state your name, your business address and your position with Gulf Power Company?

A M. W. Howell. Business address is 500 Bayfront Parkway, Pensacola, Florida. I'm Manager of Transmission and System Control for Gulf Power.

Q Have you prefiled direct dtestimony in this docket entitled "The Direct Testimony of M. W. Howell"?

A Yes.

Q Do you have any corrections to that testimony?

A No.

Q If I were to ask you the questions contained in your testimony today, would your answers be the same?

A Yes.

MR. HOLLAND: Mr. Chairman, we'd ask Mr. Howell's testimony be inserted into the record as though read.

CHAIRMAN WILSON: Without objection it will be so inserted into the record.

MR. HOLLAND: His exhibits, I believe, have been premarked, 97 through 121 have been stipulated to.

(Exhibit No. 97 through 121 were previously stipulated into the record.)

RECORD COPY

GULF POWER COMPANY

Before the Florida Public Service Commission
Direct Testimony of
M. W. Howell
Docket No. 891345-EI
Date of Filing December 15, 1989

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

A. My name is M. W. Howell, and my business address is 500 Bayfront Parkway, Pensacola, Florida 32501. I am Manager of Transmission and System Control for Gulf Power Company.

Q. Have you previously testified before this Commission?

A. Yes. I have testified in various ~~cogeneration~~ cogeneration, territorial dispute, planning hearing, and fuel clause adjustment dockets.

Q. Please summarize your educational and professional background.

A. I graduated from the University of Florida in 1966 with a Bachelor of Science Degree in Electrical Engineering. I received my Masters Degree in Electrical Engineering from the University of Florida in 1967, and then joined Gulf Power Company as a Distribution Engineer. I have since served as Relay

Engineer, Manager of Transmission, Manager of System Planning, Manager of Fuel and System Planning, and Manager of Transmission and System Control. My experience with the Company has included all areas of distribution operation, maintenance, and construction; transmission operation, maintenance, and construction; relaying and protection of the generation, transmission, and distribution systems; planning the generation, transmission, and distribution system additions in the future; bulk power interchange administration; overall management of fuel planning and procurement; and operation of the system dispatch center. I have served as a member of the Engineering Committee and the Operating Committee of the Southeastern Electric Reliability Council, chairman of the Generation Subcommittee and member of the Edison Electric Institute System Planning Committee, and chairman or member of a number of various technical committees and task forces within the Southern electric system and the Florida Electric Power Coordinating Group, regarding a variety of technical issues including generation expansion, transmission expansion, transmission interconnection requirements, central dispatch, transmission system operation, transient stability, underfrequency operation,

generator underfrequency protection, system production costing, computer modeling, and others.

Q. **Have you prepared an exhibit that contains information to which you will refer in your testimony.**

A. Yes. My exhibit consists of two schedules to which I will refer. Each schedule of this exhibit was prepared under my supervision and direction.

Counsel: We ask that Mr. Howell's Exhibit, comprised of two Schedules, be marked for identification as Exhibits 97-98 (MWH-1).

Q. **Are you the sponsor of certain Minimum Filing Requirements (MFRs)?**

A. Yes. Those which I am sponsoring are listed on Schedule 2 of my exhibit. To the best of my knowledge, the information in all of the listed MFRs is true and correct.

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

A. I will address the Company's participation in the Intercompany Interchange Contract (IIC), the benefits it provides to Gulf's customers, the Company's

off-system sales, transmission line rentals, transmission operation and maintenance (O & M) expenses, the transmission construction program, and services provided by Southern Company Services, Inc., (SCS) for the transmission and interchange functions.

Q. What is the function of the IIC?

A. The contract is a mechanism wherein the operating companies of the Southern electric system - Alabama Power Company, Georgia Power Company, Gulf Power Company, Mississippi Power Company, and Savannah Electric and Power Company - agree to operate an integrated electric system or power pool. The IIC is dynamic in nature in that it is reviewed annually and updated as required to reflect changing conditions. The contract is prepared under direction of the system Operating Committee, which consists of one representative from each operating company and one representative from SCS. The transactions involved in system operations and the sharing of benefits and burdens of pooling among member companies are specified in the IIC. Under terms of the IIC, the generating resources of all member companies are economically dispatched to serve the total system load requirements. This concept insures that multiple

benefits accrue to the customers of each operating company.

Q. What are the benefits Gulf customers derive from this type of pooling arrangement?

A. Gulf's customers benefit tremendously from Gulf participating in this pooling arrangement. This Commission has consistently recognized these benefits in past proceedings and rate orders. Our analyses over the years have consistently shown that Gulf's customers receive millions of dollars of benefits annually as a result of Gulf's participation in the pool, as opposed to operating separately. These benefits include, but are not limited to, the following:

1. **Economic dispatch production cost savings.**
2. **Economic sharing of generating reserve capacity.**
3. **Ability to install large, efficient generating units.**
4. **Reduced requirements for operating reserves.**
5. **Pool market for temporary surpluses of capacity and energy on Gulf's system.**

6. Ready supply of energy for purchase when Gulf is short.
7. Long-term power sale revenues.
8. Unit power sale benefits.
9. Peak-hour load diversity.
10. Economy energy transaction benefits.

These multiple benefits that accrue to Gulf and the other system operating companies result from the coordinated planning and operation of the power pool. Certainly, increased reliability is a major factor in pool operation. In the event of the loss of generation or transmission ties within Gulf's system, the pool responds instantly with replacement capacity and energy from the most economical source available at the time. Southern's many transmission interconnections with neighboring utilities also allow us to purchase power for the system in an emergency; therefore, the multiple transmission ties to other regional utilities ensure that we can buy the cheapest energy available at all times.

Certainly, a major benefit of the pool to Gulf Power has been the selection of generating unit size in the Southern system. Because of the capacity

equalization process under the IIC, we have been able to completely own or purchase shares of 500 mw and 800 mw state-of-the-art generating units. This capacity has been purchased at lower cost per kw and is more efficient generation than otherwise would have been available to a relatively small company such as Gulf. We could not support a sufficient spinning reserve for such large units without participating in the Southern electric power pool. Thus, it is our participation in the pool and the IIC that enables Gulf's customers to achieve the savings associated with these large units.

Coordination of major maintenance periods for turbine inspections can be a major problem for a company of Gulf's size. However, with the coordinated maintenance planning that takes place within the Southern system, we are able to accomplish major maintenance on our large generating units and purchase economical replacement power at the same time.

Gulf is also able to share in the diversity of power needs resulting from the system providing service to such a large geographical region. The territories of the system companies have weather, time zone, and customer mix differences. These differences result in variations in load patterns because the

operating companies do not all reach their annual peak demand at the same time. This improves overall system load factor and means that fewer generating units have to be constructed and committed to service at a given time, thus creating lower system production costs.

Q. How will the Plant Daniel and Plant Scherer capacity that was previously committed to Unit Power Sales be treated in the IIC?

A. Now that this power is no longer committed to Unit Power Sales, it is a generating capacity resource for the territorial customer, and is treated like any of the Company's other territorial generating capacity resources.

Q. How is the IIC budget determined?

A. The IIC budget is determined on a annual basis The two components are the capacity and energy portions of the budget. Capacity determinations are made on a monthly basis, driven by each Company's forecasted peak hour monthly load and expected generating capacity. Sales from a surplus company to a deficit company are based on average embedded fossil generation costs. The energy budget is prepared utilizing a probabilistic dispatch model which

determines the most economical generation sources each hour to provide for the entire Southern system load. When it is more economical to buy from another pool member, rather than generate, the model captures this in the dispatch simulation. All the energy transactions for a year are aggregated by the model, and this information is represented in our pool budget.

Q. Does membership in the Southern electric system power pool enable Gulf to participate in multiple off-syster power sales agreements?

A. Yes. The Southern electric system is in a regional position that allows the interchange and sale of power directly to thirteen other utility systems. Gulf has actual transmission line connections to only two of these systems. The IIC, which governs the operation of the Southern system power pool, provides for the equitable distribution of these sales among system companies, and this allows Gulf to be a party to thirteen different interchange contracts with regional utilities. Some of these neighboring utilities are heavily dependent upon oil and natural gas for electric generation. Because Gulf Power and the Southern system have an excellent mix of generation

resources with a high percentage of economical coal capacity, a market for sales of electricity off the Southern system has resulted. The coordination and economic dispatch of these generation resources make the Southern system a reliable source of economically priced energy for the entire region.

These off-system sales fall into three categories: (1) Economy energy sales, (2) Long-Term Non-Firm capacity and energy sales, and (3) Unit Power Sales (UPS). Economy energy sales occur when Southern's incremental energy price is below that of purchasing utilities. These sales have no associated capacity, and the energy is priced on a split-the-savings basis such that the customers of both the selling and purchasing utilities benefit. Currently, the Southern electric system sells economy energy to ten neighboring utilities. In the future, the system will continue to market this service to the extent that it remains beneficial to the territorial customers of the Southern electric system.

Long-Term Non-Firm sales consist of capacity which is supplied out of the mix of fossil units or the Southern system with energy sold at incremental cost. Contracts for these sales allow the system's operating companies to recall this capacity whenever

needed for its own territorial customers. Currently, the system has one Long-Term Non-Firm customer who has contracted sales until May, 2000.

UPS are sales of capacity and energy entitlements, based on specific generating units. These sales provide for capacity based on unit-specific costs. Currently, the generation contracted in the 1982 UPS agreements ("old" UPS) is being provided by generating units at Plants Miller and Scherer to two customers until May, 1995. The Southern system recently executed new UPS ("new" UPS) contracts which cover sales to three utilities within the state of Florida for the period 1993 through 2010. The new UPS contracts are basically identical to those executed in 1982 and are the product of comprehensive and extended negotiation between representatives of the Southern operating companies and representatives of the three purchasing utilities. In the period from January 1, 1993, to June 1, 1995, these new contracts provide options which would allow the full contract amount to be purchased by the UPS customers. These sales will be made out of Units 1 through 4 of the Miller Plant owned by Alabama Power and Unit 3 of the Scherer Plant jointly owned by Georgia Power and Gulf Power. New UPS will allow the Southern operating

companies to substitute peaking capacity for coal base-load generating units at a lower total cost to the territorial customer. Schedule 1 of my exhibit summarizes the off-system sales now contracted by Southern.

The Southern operating companies are continually evaluating new markets for off-system sales, including Unit Power Sales. This action will continue to be an alternative for future generation needs if the Southern system companies can sell base capacity, replace it with combustion turbines or other capacity, and thereby save money for their territorial customers.

Q. What has been the impact of off-system sales on Gulf's retail customers?

A. These sales have provided revenues from short-term surplus energy and capacity which have substantially reduced the revenue required from the retail customer to provide long-term reliable electric service.

The capability to participate in regional power sales provided by its membership in the Southern electric system pool has enabled Gulf Power to purchase a share of Plants Daniel and Scherer at tremendous savings to our customers.

During the early 1990's time frame, the off-system sales outlook shows that the Southern system may have additional capacity to sell if a potential purchaser can be located, including our 63 mw of Plant Scherer Unit 3. Beyond the mid 1990's, the system's reserves are projected to be within the target range.

Q. Does Gulf have transmission facility agreements which are related to its ownership in Plants Daniel and Scherer?

A. Yes. Gulf has such agreements with Alabama Power Company, Mississippi Power Company, and Georgia Power Company. These agreements, sometimes referred to as transmission rental agreements, compensate these companies for their transmission facilities used by Gulf to deliver our capacity and energy from the jointly owned plants in Mississippi and Georgia to our service territory. The charge to Gulf from Mississippi Power is related to the Daniel-Wade-Barry 230 kilovolt transmission line which begins at Plant Daniel in Mississippi, runs to the Wade Substation in Mississippi, and terminates at Plant Barry in Alabama.

The charge to Gulf from Alabama Power is related to the Barry-Crist 230 kv line which begins at Plant

Barry in Alabama and interconnects with the Gulf Power system at the Florida state line.

These charges to Gulf from Alabama Power and Mississippi Power are based on the cost of these transmission facilities, and are a small fraction of what a fully embedded transmission service charge or alternative transmission construction would cost Gulf.

The charge to Gulf from Georgia Power is related to transmission facilities owned by Georgia Power which are utilized to deliver capacity and energy from Plant Scherer Unit 3. This charge is significantly less in 1990 than what a fully embedded transmission service charge or alternative transmission construction would cost Gulf. In all cases, the available alternatives of a fully embedded transmission service charge or construction of new facilities were evaluated prior to our decision.

Q. **Please summarize transmission O & M expenses for 1990 as compared to the benchmark level for transmission.**

A. Total transmission O & M expenses consist of two major categories: transmission line rents, and other transmission expenses. Total transmission line rents for 1990 are budgeted to be $3,017,839. While

Mr. Scarbrough has discussed the accounting treatment related to transmission line rental benchmarks, I want to emphasize that the benchmark philosophy really is inadequate to determine a reasonable level of expenses in this area. Earlier, I discussed the manner in which the transmission line rental charges were determined and stated that they represented significantly less cost to Gulf's customers than the other alternative of utilizing the standard embedded cost of transmission facilities as a basis for transmission service charges. Thus, not only will our customers realize millions of dollars in savings over the life of the associated shared plants through generation cost savings, but they also receive additional savings through the lower transmission service costs which we have been able to secure. Because of this, it is simply inappropriate to apply a benchmark philosophy to this class of expenses without making the adjustments set forth in Mr. Scarborough's testimony.

The remaining transmission O & M expenses for 1990 are budgeted to be $4,279,584, while the 1990 benchmark amount for this area is $3,602,137. These expenses are over their benchmark by $677,447. This difference is due to the need for new funds to conduct

groundwater testing at Gulf's substation sites in order to comply with the State of Florida, Department of Environmental Regulations' Consent Order #88-0471. A justification of this variance appears in MFR C-57.

As discussed in Mr. Gilbert's testimony, each department at Gulf Power Company which charges to transmission accounts goes through a detailed review during each budget cycle regarding expenses for the budget year which are necessary to maintain a dependable and reliable transmission system. These expenses are reviewed on a departmental and company-wide basis before being recommended for approval by the budget committee. Thus, these expenses receive several levels of review prior to being included in the budget.

Q. What transmission efficiency improvements has Gulf implemented since 1984?

A. In 1985, Gulf purchased a second mobile substation unit and located it in Panama City. This unit provides transformer overload relief, reduces construction costs, and allows facility maintenance and testing to be performed without service interruption. Also in 1985, a program was initiated to bid out the reclearing of transmission line

rights-of-way. Bids are received from several contractors early in the year in which reclearing is required so as to insure the lowest possible cost for the work required.

Also, the use of computer equipment has been significantly expanded since 1984 to relieve departmental personnel of many tasks now more easily and efficiently done via computer. The production of many vital reports, which were previously generated by hand, are now produced by computer.

Q. Please give a summary of your transmission construction program.

A. At the end of 1990, our total transmission plant-in-service is projected to be $189 million. Our current estimate for 1990 indicates that we expect to spend approximately $10.3 million for new construction. These transmission expenditures are necessary to serve new customers, to strengthen the transmission system to meet additional demand resulting from load growth, and to replace damaged, worn-out, or obsolete facilities. All of these transmission construction items are necessary to serve the customer's current and future electric needs.

All transmission capital projects are reviewed each year before they are either added to or retained in the budgeting process. Long-range transmission planning studies are performed annually which determine future transmission system improvements which will be needed in the coming ten-year period. When future deficiencies are expected, alternative improvements are determined, and the most cost-effective solution is recommended for inclusion in the budget. Several departments within the company review these recommendations to ensure that these are the most cost-effective and practical solutions available. Additionally, all projects, including transmission and other functional areas, are subjected to a comprehensive review by a corporate task force prior to being recommended to the budget committee for inclusion in the budget. Generically, a project is included in the budget at least four years before expenditures will be required. Once a project is in the budget, it is subjected to the same rigorous review on a annual basis as any new project; thus, a transmission capital project will generally have a number of reviews prior to dollars actually being spent on the improvement.

Q. What is Gulf doing to minimise new construction expenditures?

A. Transmission system improvements are evaluated on an alternative economic basis before being included in the budget. Construction for major transmission lines is awarded on the basis of competitive bids from qualified contractors. Transmission equipment and material requirements are also awarded on the basis of competitive bids. This process ensures the lowest installed cost to Gulf's customers.

Q. Please describe the services provided to your department by Southern Company Services.

A. Transmission and System Control takes advantage of the pool of specialized professionals at Southern Company Services, Inc. (SCS) who utilize highly developed computer facilities to assist in the evaluation, design, and operation of Gulf's transmission facilities. These services are not only economical because of the sharing of these pooled resources with other operating companies in the system, but also because they are provided at cost to Gulf Power.

These services provided by SCS include transmission system equipment evaluations, transmission line and substation design, coordination

of Gulf's transmission system operations through the Power Coordination Center in Birmingham, processing of system operations data, system security, power marketing activities, and Interchange Contract budgeting and billing.

Q. Please summarize your testimony.

A. Because of Gulf's participation in the Southern system power pool and the IIC, there are tremendous monetary benefits which are provided to Gulf's customers. The low cost, shared capacity which Gulf was able to purchase at Plants Daniel and Scherer are examples of how our participation in the IIC has benefited our customers. Because Gulf is affiliated through the contract with an extremely large power system, there are opportunities for off-system sales which result from the other system companies and their interconnections with outside utilities. These opportunities for additional sales have provided significant additional monetary benefits to our retail customers. Our transmission construction and O & M costs are carefully controlled, and we are within the Commission's benchmark levels except for the groundwater testing program which is required as a new area of expense by the State of Florida. Our efforts

in securing transmission facility agreements related to our shared ownership of capacity at Plants Daniel and Scherer have resulted in significant savings over standard transmission arrangements, thus significantly reducing the long-term cost to customers. In all our activities in the transmission and interconnection area, Gulf has consistently acted prudently and devised contracts and procedures which will serve to minimize our customer's long-term cost.

Q. Does this conclude your testimony?

A. Yes.

Q (By Mr. Holland) Mr. Howell, would you summarize your testimony?

A Commissioners, I'm only asking that you affirm that we are prudently managing the transmission and interconnection functions of Gulf Power. Mr. McCrary has already demonstrated that our rates are the lowest among the investor-owned in the state, and one of the big reasons is because of the interchange and transmission managing of those functions.

Our pooling and simple economic dispatch is state of the art. It minimizes the production cost to the customer. This Commission in the past has consistently recognized that our pooling does save our customers dollars. Our participation in Daniel and Scherer and our acquisition of the Crist capacity are examples of how we've been able to acquire relatively large, efficient generating units that we would not be able to do if we were not part of the pooling arrangement.

The transmission facility agreements which have sometimes been referred to as line rentals are another area of savings for our customers. In both the Daniel and Scherer situation where we required out-of-state capacity, we examined the options available to us for transmission service and were in

both cases able to secure the lowest cost option for our customers. The rentals are not appropriate for a benchmark guideline, particularly since these rentals are in lieu of additional investment that we would make that is not captured by the benchmark theory.

I would say, in short, that we are doing and continuing to do what we do best. We look at all the options in the areas of cost to minimize those to the customer. We try to keep our rates as low as possible. We're asking you to recognize that our costs are prudently incurred and allow proper recovery for these. That completes my summary.

MR. HOLLAND: Tender Mr. Howell.

CROSS EXAMINATION

BY MR. BURGESS:

Q Mr. Howell, were you here for Mr. Parsons' testimony?

A Not all of it. I was here for part of it though.

Q He indicated that the unit power sales are governed or sanctioned by FERC, is that correct?

A They are under FERC's jurisdiction.

Q And an arrangement is reached between two entities and then FERC approves it, is that how it works, approves it or disapproves it?

A That's basically true, yes. The unit power sales that Gulf is making or Southern Company is making out of Plant Scherer, are those calculated using a rate base and a rate of return?

A Well, you mean the megawatts, or how we calculate the megawatts?

Q Yes, in charging for the capacity.

A Oh, the charge? The charge is based on the incremental cost of the capacity.

Q And when you say incremental cost of the capacity, I assume that means the capital cost times a rate of return, is that correct?

A Well, actually, it's all the things Mr. Dawson talked about earlier that are applicable to rates for capacity sales. It does include what you said, the investment in that particular plant, the applicable cost of capital and the other things that are appropriate to allocate to capacity sales.

Q What cost of capital is used? More specifically, is it Southern Company's or is it Gulf Power Company's or is it some other blend of capital sources?

A Well, it's 13.75%, as far as the return on common equity.

Q So there is a common equity component and the

charge for that is 13.75%?

A Yes.

Q Thank you, Mr. Howell. That's all we have.

MR. ENDERS: No questions.

CROSS EXAMINATION

BY MR. PALECKI:

Q Mr. Howell, please refer to Exhibit 471. This is Gulf's response to Staff's Interrogatory 157. And there you provided an analysis which shows that it was cost effective --

A I'm sorry, just a minute. 471?

MR. HOLLAND: 471?

WITNESS HOWELL: Hold on just a minute please. All right, I have 471 now.

Q (By Mr. Palecki) Please tell us the components which show that it was cost effective to sell Scherer 3 as new unit power sales and replace it with peaking capacity.

A Are you referring to a particular page in this? This is a rather lengthy exhibit.

Q Page 26.

A Okay. Okay, I have that. Go ahead with the question please.

Q What are the components that make up the total benefits from which make it cost effective?

A All right, this is a summary of the analysis that was done. If you will take the total at the bottom, the total, it says just below 2011 on, the cost of making these sales is capacity replacement, interchange effect and production energy. The total cost is 70.946 million. The revenue from these is the 155.3, or a net benefit to Gulf Power Company of $84.354 million of making the new sales.

Q What are the components that make up the net benefit?

A Within the cost -- you mean just elicit these right here or -- there are none other than those you've shown, okay. In the cost there's the replacement capacity, interchange differences, energy costs. Those are the three components of a cost. The revenue is the production capacity and the transmission capacity.

Q Will the energy component be passed on to the ratepayers through the fuel adjustment cost?

A All territorial energy costs are passed on to the customer. What we do in any analysis is determine the cost to the customer. So from a standpoint of making any planning analysis, it doesn't matter to us if it's an automatic pass through, if we have to come before the Commission and ask for recovery. We simply look at total requirements that the customer will have

to have as far as cost to him. This energy difference will be a cost to the customer.

Q So your answer is yes, the energy component will be passed on to the ratepayers through the fuel adjustment cost, is that correct?

A Unless it changes.

Q Will the capacity of revenues exceed the capacity replacement costs?

A By about $50 million.

Q If Gulf did not have another rate case until after the year 2000, which costs or benefits would Gulf's ratepayers see?

A I'm sorry, what?

Q Which costs --

A No, start the question over please.

Q If Gulf did not have another rate case until the year 2000, which costs or benefits would Gulf's ratepayers see?

A $84.354 million.

Q Is that the extra energy cost?

A That's the net benefit. Wasn't that the question you asked? What was the -- what was the difference they would see?

Q That's correct.

A They would see a savings of $84.354 million.

I'm sorry, the question was until 2011?

Q The year 2000.

A Oh, the year 2000. I don't know. That detail is not broken down here. We aggregated these by the dates shown, and that's the only breakdown I have.

I would add that we do not make any decisions on such a short range look. As we have said through many witnesses here, we look at the long range benefits to our customers and base our decisions on that. If we did not look at the long range, we would wind up with a lot of small, inefficient units compared to the mix of capacity we have today, and I think we'd make a lot of wrong decisions. So I would encourage the Commissioners to do as we do in our planning analyses, to not focus, as much of the discussion has been so far in this case, not focus on just the dollar flow in the test year, but look at the long range effect and say, "Were these decisions proper? Are there long range benefits? And if there are, then the cost and dollars that are associated with that have to flow."

Q Well, that really has very little to do with my question. Let's see if we can start off at square one.

Does your analysis break down costs and benefits between the customers and stockholders?

A No. No stockholder analyses are done in any of this. I have never done any kind of benefit to the stockholder type analysis.

My assignment is to look at the revenue requirements and get the lowest, long-term cost for the customer, and I know that's more than you asked, but I'm trying to help you understand the way we do things, where maybe it will make it a little clearer than just looking at the paper. (Pause)

Q Going back to my previous question, would it be fair to say that Gulf's ratepayers would see the extra energy cost if Gulf did not have another rate case until after the Year 2000?

A Is that the same question or a different question?

Q It's different because I specifically have referred to extra energy costs.

A We're talking about energy costs?

Q Correct.

A Okay. And I'll stand corrected if I'm wrong, but it's my understanding that unless something changes, all territorial energy costs go through the fuel clause adjustment, and that's independent of the number of rate cases. So, I think whatever territorial energy cost we incur would go through the fuel clause

adjustment.

Q And Gulf's ratepayers would see that extra energy cost?

A If it were an extra cost. I might add that I just have a very difficult time playing this type of hypothetical because I think it's unlikely that we will not be in for some type of rate adjustment between now and the Year 2011.

Q Would Gulf's ratepayers see sales revenues or capacity replacement costs if Gulf didn't have a rate case?

A Well, the capacity, the cost of the capacity is, as I said earlier, in response to a prior question, the capacity that we charge the off-system purchaser is the cost of that unit. If we pull that out of our territorial, then yes, that's a cost he no longer sees. If we then sell it off-system, the UPS customer makes those payments to Gulf Power Company, to be able to pay for the unit instead of the customer. It's the same number.

Q If 63 megawatts of Scherer were included in rate base, and if Gulf didn't have another rate case until after the Year 2000, would Gulf's ratepayers be paying for the baseload, and would Gulf's stockholders be paying for replacement peaking capacity, and

receiving revenues from the sale of baseload capacity?

A That's an awfully long question. I just don't follow it, I'm sorry.

Q If 63 megawatts of Scherer were included in rate base, and if Gulf didn't have another rate case until after the Year 2000, would Gulf's ratepayers be paying for the baseload, and would Gulf's stockholders --

A When you say the baseload, I don't think I understand that, that's what's throwing me. I don't know what you mean by "baseload."

Q We'll change that to capacity.

A Capacity. All right. Start the question over then.

Q Baseload capacity.

COMMISSIONER EASLEY: Including the 63?

Q Including the 63.

A All right. So is the hypothesis, then, that if 63 megawatts of the Scherer capacity, which is not now in rate base were placed in rate base?

Q Correct.

A All right. I've got you there. Now what's the next --

Q And if Gulf didn't have another rate case until after the Year 2000?

A And we don't have another rate case until after the Year 2000, go ahead.

Q Would Gulf's ratepayers be paying for baseload capacity?

A Is that the end of the question?

Q Let's stop there for now.

A Let me ask you some questions about that, where I can get it in my mine.

Does anything else change or what?

Q Nothing else has changed.

A Nothing else has changed. So everything else is as is.

Q Correct.

A All right. I think, what else, as is, is the fact we're going to continue to add this 50 to $70 million a year in our rate base, and if that happens, in probably 4, 5 years with no rate relief, and continuing to add plant that we're not getting recovery for, if nothing else changes, we'd probably have to shutdown, so I don't know that we'd last until the Year 2000.

What I'm saying is, that it's just not realistic to assume, make that assumption, but I've tried to answer it and be as responsive as I can, to what I consider a very difficult "what if" to

conceptualize.

Q I disagree with you. I don't think you've tried to answer my question, but I'll ask you the rest of the question.

CHAIRMAN WILSON: Met me leap in here for a moment.

In answering your question, I understand that because of your position and your understanding of the system, you find it difficult to isolate and look at a hypothetical in a static situation because of the dynamic nature of the power business.

But I think what the question is designed to do, is to try to just isolate this one effect by assuming static conditions in your Company, so that some idea of what the effect, conceptually, would be of this situation that you describe in the hypothetical. Do you understand what I mean?

WITNESS HOWELL: All right, that's helpful, Commissioner. Let me try to rephrase that, with that help, and see if this fits what you're asking.

We're assuming that Gulf adds no additional investment in, is that right? Is that part of the assumption?

Q (By Mr. Palecki) Yes. It's really not a complicated question. It's whether the ratepayers

would be paying for the baseload capacity.

A The capacity I think we said.

Q Right.

A The 63 megawatts.

If, in fact, we put 63 megawatts of Scherer in what we call base rates, in the rate base, and rates are set to cover that investment, then the answer is yes, the customer is paying for that capacity, which is exactly what we're asking for in this case.

Q And would Gulf's stockholders be paying for replacement peaking capacity and receiving revenues from the sale of baseload capacity?

A Wait. Nothing else -- Yyou said nothing else changed. I don't under the question.

Q The question you just answered, nothing else changed.

A All right. Now, was there a new question or --

Q This is an extension of that hypothesis.

A Okay.

Q And would Gulf's stockholders be paying for replacement peaking capacity and receiving revenues from the sale of baseload capacity? (Pause)

A Which year are we talking about? I mean, maybe that will help me, because I'm trying very hard

to understand what --

Q Anytime after '95, when Gulf has added its replacement peaking units.

A All right. So in 1990, we put 63 megawatts of Scherer in the rate base, is that right?

Q Correct.

A So the customer then picks up that investment, which we think is proper, and then nothing else changes from ther until when, now? Tell me what is changing.

COMMISSIONER EASLEY: It doesn't matter.

Q You've heard the testimony

COMMISSIONER EASLEY: Wait a minute.

Mr. Howell, you remind me of when I was trying to get the kids ready to take the SATs, and one of the things I told them is, "Read the question and don't read anything into the question."

Accept the hypothetical that he's giving you, as he's giving it to you, and don't make any outside assumption he doesn't give you.

WITNESS HOWELL: Yes, ma'am, and that's exactly what I'm trying to do. And he is introducing something. He says replacement capacity, and he also said nothing else changed between now and then, and I'm just having trouble understanding what really has

changed in his hypothesis and what hasn't.

COMMISSIONER GUNTER: Can I see if I can help, Mr. Palecki?

MR. PALECKI: Thank you. I would appreciate it.

CHAIRMAN WILSON: You know, of course, with Mr. Howell's part time job, he works with the United States Army, teaching interrogation resistance techniques.

COMMISSIONER EASLEY: I think he has been working for Congressman Bill Young, who used to say, "Never let the question stand in the way of the answer you want to give."

WITNESS HOWELL: That really is not the case. I have been around here long enough to see people give wrong answers because they misunderstood the question and go down a totally tangent -- I'm honestly trying to understand your question, and what I'm saying is you're giving my conflicting assumptions.

Go ahead, Commissioner.

COMMISSIONER GUNTER: Let me tell you what I'm hearing in the question.

WITNESS HOWELL: All right.

COMMISSIONER GUNTER: You start off with a predicate of assume the Commission would say, "Fine, we

put the 63 megawatts into the rate base." And we bump along and the 63 megawatts is sold UPS, okay?

WITNESS HOWELL: All right.

COMMISSIONER GUNTER: And that's part of the plan down the road anyway.

WITNESS HOWELL: Through 95, that's right.

COMMISSIONER GUNTER: Yeah, through '95. And the plans, I think on the generation expansion plan, are to add peaking capacity, when, in '95?

WITNESS HOWELL: Yes, sir, a combustion turbine in 1995?

COMMISSIONER GUNTER: All right. And I think the question is, at least the answer that is being searched for is that -- and it's one we explored with the previous witness -- if you have all the rate base items, all the expense items, all the working capital items in for the 63 megawatts, then the 63 megawatts, the ratepayers are paying to support all of that investment. The only piece they are not paying is the variable O&M piece and the fuel actually burned to be recovered through fuel adjustment, to make sure --

Well, now we go on. They have that in the rate base; then whether it's being sold or not, ratepayers are still paying that tab.

Then, come 1995, when the peaker -- well,

hold on just a minute -- when the peaker is added, the combustion turbine is added, is part of the combustion turbine addition to be to provide replacement power for the 63 megawatts? That's what I'm hearing the question.

MR. PALECKI: Yes. That's it.

COMMISSIONER GUNTER: I added a little bit to it.

MR. PALECKI: We would like to hear the answer to that question.

WITNESS HOWELL: The answer is yes, part of the reason for that combustion turbine is to replace the 63 megawatts that we otherwise would have if we had not sold it. It's far more complex than that. As you can see, we're putting in 126 megawatts versus 63, and a lot of other things have changed.

But yes, part of the reason we're putting in that CT and one to follow, is the fact that we have sold the Scherer capacity under the new unit power sales.

Q (By Mr. Palecki) And would Gulf's stockholders be paying then for replacement peaking capacity and receiving revenues from sale of baseload capacity?

A All right. I see what you're driving at.

In this totally -- and I'm going to be candid in the answer -- in this totally unrealistic hypothesis, I guess that would happen. I don't know. You know, as one of the Commissioners pointed out, my way of thinking is engrained on the way the system actually opens operates, and I just know things can't change.

But if -- and we want to assign a probability to this, I would say it's about one-in-a-million that our load's not going to grow, our costs are not going to go up, we're going to quit adding transformers to serve customers, if all of that were to happen, then I guess the stockholder would have to pay for that.

Really, what would happen is Mr. Scarbrough would come up with money somewhere to build it, and we would receive revenues off-system for it, and I'll be honest with you, I don't know what he does with the money. It comes in and he takes care of it.

COMMISSIONER GUNTER: That's the same thing Mr. McCrary said.

WITNESS HOWELL: What did he say?

COMMISSIONER GUNTER: That he didn't know what Arlan did with the money. (Laughter)

WITNESS HOWELL: He's back there grinning.

Q (By Mr. Palecki) Mr. Howell, you have been

listed as the witness to --

COMMISSIONER GUNTER: Are you going on to another thing?

MR. PALECKI: Yes, we are.

COMMISSIONER GUNTER: Mr. Howell, you would agree, though, would you not, that even though I recognize your education is from that great institution of higher learning down in the central part of the state --

MR. HOWELL: Yes, sir.

COMMISSIONER GUNTER: -- which I admire you for.

CHAIRMAN WILSON: The central part of this state?

COMMISSIONER GUNTER: Yes. He, too, is in the legion of the great Gators.

MR. HOWELL: Yes, sir.

COMMISSIONER GUNTER: Those poor rascals that are from that other school, the only thing you can say they've got right is they have their colors correct; the ones that choose to come from north of you.

WITNESS HOWELL: Well, they copied them but they have a problem with their name.

COMMISSIONER GUNTER: Yeah. They don't really know what they are, War Eagles or Plainsmen or

whatever, you know.

WITNESS HOWELL: I was thinking of something else, but go ahead.

COMMISSIONER GUNTER: I understand. A little joshing there.

But you were required, you did take some accounting courses or whatever while getting your engineering degree, didn't you?

WITNESS HOWELL: No, sir.

COMMISSIONER GUNTER: You didn't?

WITNESS HOWELL: No, sir. I took a lot of mathematics but I didn't take any accounting courses.

COMMISSIONER GUNTER: In other words, you didn't learn arithmetic, you learned math?

WITNESS HOWELL: At Florida, you have to know arithmetic before you can get in. At other places, you take it after you get there. (Laughter)

COMMISSIONER GUNTER: Well, since you already knew it before you got there.

Isn't depreciation identified as the largest single source of reinvestment income?

WITNESS HOWELL: I will have to plead ignorance on that. I do know it is one of our sources of cash.

COMMISSIONER GUNTER: Of internally generated

cash?

WITNESS HOWELL: Internally generated funds. I know it is. I do not know if it is the largest.

COMMISSIONER GUNTER: Okay. But that's speaking over a long time period. It doesn't seem reasonable to me, in sitting and listening to responses, that all of your capital additions and expansions -- to use your term, "transformers, distribution lines," and those kinds of things that have to be done to serve the public -- that it doesn't quite appear that revenues from UPS sales are the only source of funds that could be made available for those expansions that are necessary to continue service to the public. There are a number of sources, are there not?

WITNESS HOWELL: New financing certainly are a source of funds also.

COMMISSIONER GUNTER: Depreciation, new funds --

WITNESS HOWELL: Depreciation is an internal, additional funds are external. Yes, sir. All of those, we have to have to continue expansion; very true.

COMMISSIONER GUNTER: I just wanted to be sure we didn't leave it that the only source of funds would be from UPS sales.

WITNESS HOWELL: No, sir. That is a very, very good observation.

COMMISSIONER GUNTER: Okay. Go ahead.

Q (By Mr. Palecki) My next question refers to your testimony at Page 17. You listed 10.3 million for new construction in your testimony. And in your answer you don't exactly say what was going to be built for the 10.3 million. I wonder if you could tell the Commissioners what that money will be going towards?

A Do you want to save some time and tell me which page number that was on?

Q Page 17. (Pause)

A I'll give it to you by categories and if you want to go further, I'll give you individual items.

We break our budget down by categories: 3.1 million would be in the new business category. 2.4 million would be in the transmission category. 1.3 million would be in the distribution category. And 3.5 million would be in what we call the joint, would be a joint transmission and distribution category.

Q That will be acceptable for now. And as a late-filed exhibit, in order to save time here, could you provide us with the specifics?

A Yes. Would be glad to.

CHAIRMAN WILSON: That would be Late-Filed

Exhibit No. 593.

MR. PALECKI: That would be "Breakdown of Transmission Construction."

(Late-Filed Exhibit No. 593 identified.)

Q (By Mr. Palecki) Mr. Howell, you have been listed as the Gulf person to speak to Audit Disclosure No. 50, which is found on Exhibit 430, which is the Florida Public Service Commission Audit Report.

Specifically, the assertion was that your contracts did not appear to be based upon rate base regulation amounts, and your answer to that assertion was that, "Gulf will continue to effect arrangements which appear to be innovative to auditors but which lower customers' costs." And in your answer you didn't give any specifics.

A I'll be glad to give that now.

Q Okay, we would like a demonstration by year of the amount of savings to customers that you have been able to effect.

A In the discussions with the auditors, they typically understand things that fall into what we call traditional categories or traditional ways of doing things. This did not, and it was my assessment that this was -- I'll use my own term, "innovative," to them.

Because it was different from what he characterized as rate base regulation, it appeared they were negative on their comment which was a little disturbing to us, because we demonstrated the fact that it was not rate base resulted in a lower cost.

I would like to refer you, and I don't know what the exhibit number is, but it's Schedule 9 of my rebuttal testimony. It's the copy I have in front of me right here.

If you want to turn to that, in Plant Daniel in 1981, we had three options. The cost in 1981 under the proposed agreement was $1.1 million. And that's the agreement that we actually worked out. If we had built a 230 kV line to transport the power, it would have cost approximately $4.5 million. If we had paid the two utilities in Mississippi and Alabama for what I think the auditor would liked to have seen -- and, that is what I call rate base regulation, if you will, -- the fully embedded charge would have be $12.2 million per year.

On the basis of that, you've got the answer you desire there as to the expected annual savings. Scherer is very similar. If you'd like me to go into that, I can. I'll just refer you to Schedule 9 and it's explained exactly the same way.

Q We'll refer to Schedule 9, thank you.

CHAIRMAN WILSON: What is Schedule 9, where is that?

WITNESS HOWELL: Schedule 9 of my rebuttal testimony, Commissioner. That's the copy I have of this, so that I know it should on record somewhere.

MR. STONE: It's Exhibit 107 is the number of the exhibit.

WITNESS HOWELL: And the difference there on what the auditor would liked to have seen as 12.2 million, and what we worked out of 1.1 is something on the order of $11.1 million. So to us it was worth the appearance of nonrate based.

Q (By Mr. Palecki) Did you have prepared under your supervision the response to Interrogatories Nos. 8 through 11 in Staff's First Set of Interrogatories? This has been introduced.

A Staff's First Set, 8 through 11? Is that an exhibit?

Q Excuse me, 8 and 11.

A Just a minute. (Pause)

Q I don't think you even have to refer to it.

The question I have is: Why does Southern send a monthly price signal through its IIC rather than a seasonal price signal?

A Is that what the interrogatory said? Do you mind if I look at the interrogatory?

Q No.

A Okay. (Pause)

Okay, the interrogatory said, "Please provide the rate for each month," which we did. And now what's the rest of the question?

Q We'd like you to refer to both Interrogatories Nos. 8 and 11.

A Okay. "Does Gulf pay seasonally differentiated rates when it purchases capacity?"

Answer: "No."

"Then explain why it does not seasonally differentiate the capacity charges?"

The capacity charges are cost-based, and that is approved by FERC, and the costs are based on what our actual costs are. And we just charge -- we charge what it costs.

The capacity is really sitting there; it can't come in and out -- come in for the summer and go out for the fall. It's there all year around, must be paid for all year around. So that's certainly one reason that we allocate the cost as it occurs.

Q Does Gulf receive or pay Southern IIC charge rates based on its monthly equalized reserves?

A Well, we have monthly charge rates. And the calculation is a combination of the monthly and the annual calculations. But we do make monthly calculations based on loads and costs.

Is that what you're asking?

Q Yes.

A Okay.

Q Does Gulf presently have approval from the Southern Operating Committee to get credit for interruptible load in the calculation of the monthly equalized reserve?

A No. We do not.

Q Now "credit" means that the interruptible load is subtracted from the operating company's demand at the time Southern System peak hours -- (Pause)

Excuse me a moment. Let me have a second, please. (Pause)

Does Gulf include or provide credit for interruptible load to any other interruptible customers in other states for purposes of calculating credit under the IIC?

A Yes, we do. And that needs to be explained because it's not a simple yes or no.

The purpose, as I think everybody is aware, of interruptible loads is to interrupt the loads at the

peak rather than have capacity added. It is a source of generation, if you will.

The other interruptible load, which is on the system, was acquired during the time at which we were adding capacity resources, so it was approved and is there. We do have plans -- I think the Commissioners are aware that once we start needing capacity again, we will also be out trying to acquire additional interruptible load in those instances where it's cheaper than adding new capacity.

The fact that we don't have any right now is just a simple fact that we did not have any customers that qualified in the time frame we were adding capacity. Alabama is the primary one that did.

Q So in Alabama there are interruptibles that are included in determining what thr Southern IIC charge rate should be?

A Yes. That's right.

Q Doesn't that create an uneven playing field for purposes of determining the IIC charges?

A How? In what way?

Q Well, you include interruptibles. For example, I think you said Alabama. And you don't include interruptibles in Florida; there are none that are included in determining your IIC.

A Well, that's only part of it. On the level playing field, you play by the same rules. And like I said earlier, the rules are that back in the time frame when we were adding capacity, we need capacity, if interruptible can be secured, it will be given as a resource. Gulf did not have any interruptible customers that it could secure in that time frame.

Right now, Southern System is not trying to add capacity for 1990, so nobody gets credit for new interruptible. In the time frame when we will be needing the capacity in 1995, anybody who can add qualifying interruptible will get credit at that time.

So I think the answer to your question is that we do have a level playing field; we play by the same rules. But the key is that we would be imprudent if we paid capacity credits for new interruptible for somebody else, just as they would be if they paid for us in a time when we don't need to go out and get additional interruptible.

Q So the answer is, because the rules were different at the time Alabama put its interruptible in or started supplying that interruptible customer, that that's the reason that we have a difference where interruptible is included for the state of Alabama --

A Oh, no, not at all. The rules have not

changed. The rules are that if you can add interruptible in a time when the system needs capacity, you get credit for it. If you can't, you don't. If you want to add interruptible when the system doesn't need capacity, you don't get credit. Just like you would not get credit for a CT you went out and built when the system didn't need it. The rules don't change.

Q Does an increase in one operating utility's monthly equalized reserve increase his IIC revenues or decrease his IIC payments depending on whether the Utility is below or above The Southern Company average?

A The reserve calculation, if you have more reserves, more equalized reserves, and you are a selling company, then you sell more and receive more dollars from the pool. If you are a buying company and you increase your equalized reserves, then you buy less. So in both cases, in both instances, buying or selling company, if you increase your equalized reserves, then you wind up being -- your customers wind up being to the good, if you will. If it didn't cost you anything to do that and you played by all the rules.

Q These next questions refer to Issue 280, which is whether Gulf has budgeted $3,017,000 for

transmission rents for Plants Daniel and Scherer. Are these expenses reasonable? The question I have, if these charges are less than full embedded cost, how does the other party, Georgia or Mississippi, make a profit on the rental agreement?

A Well, let me answer the first part of that question that, yes, these charge are less than the fully the embedded, and I went over that a while ago. And --

then how do they make a profit?

Q Correct.

A I'm not sure what you mean by that. It is my understanding that the operating companies cannot make a profit off each other under the Public Utility Holding Company Act.

Q Do they make a loss?

A Well, I don't know that they would -- if one loses, maybe the other gains, and I don't think either one can make a gain off the others.

Q Well, you've told us that the charges are less than the fully embedded costs. So would it not follow that either Georgia or Mississippi would lose, would suffer a loss on this rental agreement?

A Maybe their cost wasn't up to the fully embedded in this case.

Q Do you know that?

A Do I know that?

Q Yes.

A I have an opinion. I mean, they're the judge -- they have to look out for their company and I have to look out for mine, and I certainly didn't rook them. I say, "I," Mr. Parsons, who approved the agreements, and I, who did the negotiation, did not attempt to rook them. We tried to come to a reasonable agreement that we thought was equitable to both, and that's what we -- both parties did, all three parties actually.

Q Could you give us a projection as to what these costs will be for the next five years? How do these cost escalate over the next five years? (Pause)

A Let me just mention one thing. The 3,000 -- the 3,017,000 mentioned, that's all facility charges. Maybe 99 or so percent of it is for the Daniel and Scherer. There is one piece that's not a part of that, but just -- it's not all just for that capacity over here.

In 1991, it's estimated be 3,067,000. So it de-escalates, if you will. In 1992, 2,975,000, goes down again by some small amount. I don't have an estimate for 1993 because the Scherer agreement expires December 31st, 1992, and we have agreed in that

agreement to get a new agreement, if you will, prior to that time.

MR. PALECKI: Thank you. We have no further questions.

CHAIRMAN WILSON: Questions, Commissioners?

MR. HOLLAND: Commissioners, just for your benefit, the issue of the treatment of cogeneration in the IIC, if you'll recall from yesterday, was deferred to Mr. Howell, and he is the appropriate witness to address that question.

CHAIRMAN WILSON: I don't recall what the question was.

COMMISSIONER GUNTER: I apologize. I was holding that for another witness. I guess there's a series of questions there, Mr. Howell.

The first one was, and my recollection of Mr. Parsons' testimony was that as far as capacity -- as far as capacity planning and treatment for the levelizaton between the companies -- levelization of excess capacity, is that no, they were not included, cogenerators and potential -- any congeneration was not included in that process. That led logicaily to the next question of the IIC agreement. What affect do cogenerators have there if they are not dispatchible units, if they were operating under standard offers

such as we have in Florida, that they have to run 70% of the time and that kind of thing? How would that affect that ICC contract?

A Let me clarify something that you just mentioned then, that Mr. Parsons testified to earlier.

There is none in right now, but I don't think he meant to imply that we don't expect any. Some of the companies -- well, cogeneration is just like interruptible. It's a generation resource that will prevent you from having to add other capacity on the peak.

The fact that we are not right now in the mode of needing capacity resources additional to what we already have committed for 1990, tells us that we ought not to pay a company to go out and sign up interruptible. We also would not give credit to Georgia if they went out and bought some capacity somewhere. We also would not let anybody include cogeneration if they acquired it, for 1990, because this system doesn't need it. That's been our criterion all along.

We recognize that starting in 1995 we do add capacity. So cogeneration that's good capacity, that will supply the needs of the system, will be considered as a resource, depending on how much of it we get,

starting in 1995.

COMMISSIONER GUNTER: Well, now, hold on just a second.

WITNESS HOWELL: Okay.

COMMISSIONER GUNTER: You say, "starting in 1995." 1995 on your generation expansion plan is the date that you're supposed to have your combustion turbines on line, isn't that correct?

WITNESS HOWELL: Yes, sir.

COMMISSIONER GUNTER: Why would you wait until they are supposed to be on line to have that consideration? It takes you two years to build them anyway, you're above 75 megawatts; you have to start the planning process and the permitting process before then, and I would think if you all were serious about a 1995 date, we'll see you next year, in '91, to begin a need determination. Why would you wait until '95 to begin to make that consideration? That's the part I don't understand.

WITNESS HOWELL: I didn't mean to imply we wouldn't start thinking about it. What I'm saying is they wouldn't start -- just like the capacity wouldn't be on line until 1995, they could not start receiving financial credit until 1995 at the same time we give credit for additional capacity. In fact, the --

COMMISSIONER GUNTER: That's today they couldn't.

WITNESS HOWELL: That's right, yes, sir. But the companies are attempting to secure cogeneration, but it's just that we cannot give credit for it until 1995, just like anybody -- we wouldn't give credit for any other capacity resource because I don't think it would be fair for Gulf's ratepayers to pay Georgia for acquiring cogeneration when we already had enough capacity.

So what the companies are doing, they are trying to work this where they can get what cogeneration is economically available for 1995.

Now, as far as us starting on it now, we have participated for a long time in the planning hearings and the cogeneration dockets where we give what our avoided costs are. Unfortunately for us, you might say, we are not a very attractive source or recipient of the cogenerated power. They look at what our avoided costs are and they look at what peninsular Florida's avoided costs are, and they say, "Gosh, I can get more for this in peninsular Florida than I can here. Why should I sell it to Gulf who's avoided costs are very low when I can get a higher cost down state?"

In fact, I'm sure you all are aware of the

Bay County Resource Facility -- garbage burner that is in our territory that we have contracted with to provide all the appropriate services so that they can sell the production capacity down in peninsular Florida because they get more for it.

Now, as long as our avoided costs are lower than other utilities, I think we will find we're just not as attractive a target. That doesn't make us not try to get it, because if we can get congeneration that's as good as other capacity and will cost less, then we're going to go out and do it. We have always tried to get the lowest cost resources, and we're going to continue to do that. So we're not just going to wait until 1995 and say, "Oh, maybe we need to get some, but we just can't start paying for it until that time frame."

COMMISSIONER GUNTER: What happens in the planning process, for instance, if we were to choose to interpret state law that said we would establish a statewide? It doesn't say peninsular.

WITNESS HOWELL: Yes, sir.

COMMISSIONER GUNTER: But a statewide avoided unit.

WITNESS HOWELL: All right.

COMMISSIONER GUNTER: That puts you all in

the bucket.

WITNESS HOWELL: Right.

COMMISSIONER GUNTER: Right then, immediately.

WITNESS HOWELL: Yes, sir.

COMMISSIONER GUNTER: Recognizing there's some downside to your customers and one thing or another, but lay that aside for a second.

WITNESS HOWELL: Yes, sir.

COMMISSIONER GUNTER: What happens then? How do you count that, in your negotiations or contracts or whatever, with Southern Company and the other folks? Do you just ignore them?

WITNESS HOWELL: Well --

COMMISSIONER GUNTER: In that --

WITNESS HOWELL: We don't ignore. Let me explain what would happen there.

If this happens -- and understand then, that if the need -- and let's just say, for instance, that a coal unit is the avoided unit, is that a fair assumption to make?

COMMISSIONER GUNTER: It is today. I think may not be after Tuesday.

WITNESS HOWELL: Let's just say that it is, okay? And you adopt a statewide unit, and anybody in

the state then has to take that. And a cogenerator crops up in Quincy somewhere and says -- let's take Panama City, and they say, "Gulf Power, we want to sell this to you. You've got to take it because the rules say you do." Well, let's -- I have a hard time, again, with "what-ifs," but let's just assume that we are dragged, kicking and screaming, into this and exhaust all of our administrative options and we, in fact, purchase it and we can't find the party in the state who is the one who needed it, then we will have the capacity, we would take that capacity, it's my understanding, and the cost of that would flow through the fuel adjustment clause, and our customers would then pay for that capacity.

COMMISSIONER GUNTER: You're answering some questions I haven't even asked.

WITNESS HOWELL: I'm going right on up. I'm going right on up.

Now, we have this capacity, and if were to go to the Operating Committee and say, "We've got some capacity that we didn't have any choice, we had to take it, we would like to put it in the interchange contract." And they would say, "You had to take it, we hope you enjoy it. That's a problem between you and your Commission." But just as we would not pay you to

go out and buy a new coal unit somewhere, we're not going to pay you for capacity that the Southern System doesn't need. That is consistent with the rule that the Counselor talked about earlier, that we all -- we don't pay any interchange contract for any capacity that is not needed on the system. So we would basically have to eat it.

So if we cannot, if you will, sell it to the other parties in the Southern System, and we have exhausted all of our administrative efforts at not having to buy this stuff and we cannot find the party in the state that would be the party that needs it, then obviously we would try to do something with it. And I -- off the top of my head, I'm not sure what that might be. But, the fact that we don't need it, you know, we are looking for our customers at all times.

COMMISSIONER GUNTER: That will be a subject for another day.

CHAIRMAN WILSON: How are the payments to Southern Company recovered under IIC? Is it through purchased power?

WITNESS HOWELL: Base rates.

CHAIRMAN WILSON: Recovered through base rates?

WITNESS HOWELL: Yes, sir. The capacity

payments are through base rates. Energy, you know, energy flows all over the system, according to economic dispatch, and we come every six months for a fuel recovery for the energy costs, but that's energy only. Any capacity components, such as the capacity equalization and that type of thing has to be recovered through base rates in a rate case.

CHAIRMAN WILSON: Did you hear the discussion earlier about some plants that basically weren't in anybody's rate base, but were owned by Southern Company and were sort of regulated by FERC?

WITNESS HOWELL: Yes, sir.

CHAIRMAN WILSON: And made sales?

WITNESS HOWELL: Yes, sir.

CHAIRMAN WILSON: How was that handled in the -- would that have changed the dispatch at all?

WITNESS HOWELL: Well, let me explain what happens, because I'm not sure --

CHAIRMAN WILSON: I need to understand what the situation is.

WITNESS HOWELL: I think I'm I'm going to improperly interpret your question. Let me explain just a little bit of the situation, then you can ask further. Those plants, let's take Scherer plant, 1995, we have our capacity sold. That is no longer a

resource to us because first call goes to the UPS purchaser who pays all the associated costs. That is removed from Gulf Power Company's resources. We then do not get to claim that as a capacity resource in the interchange contract.

We take all of our other resources that we do have and compare that with our load responsibility and then they calculate what the capacity transactions are. But it basically it pulled out of our resources as far as a resource.

Then, as Mr. Dawson explained, we got some other good things out of the unit power sale contract in that the off system purchaser has first call on that capacity. If it's available to run and he doesn't want it right then, and it's economical, it's the next one in the dispatch stack, we can utilize that to serve our own load and the energy out of that would flow right through the fuel clause adjustment like any purchased power. But there is no capacity dollars associated with it because we don't have first call on it.

CHAIRMAN WILSON: All right. If there were a plant that weren't in anybody's rate base, any operating Company's rate base, would the power from that plant be available on the interchange under the contract?

WITNESS HOWELL: Are we thinking like a, Scherer something sold in unit power sales?

CHAIRMAN WILSON: Well, I don't know. I'm just trying to feel my way through this, see if I understand what the the effect of that would be.

WITNESS HOWELL: Okay, I think the answer, Commissioner, would be it would depend on the contract.

CHAIRMAN WILSON: Let's say it's not sold as unit power sales. Let's say -- if you had that situation. That may be unrealistic.

WITNESS HOWELL: We have one right now. We have Scherer right now that's not in anybody's rate base, 63 megawatts, no customers paying for it. We're eating it right now, but it's serving our customer, it's in the dispatch, it gets all the benefits from it.

CHAIRMAN WILSON: If you've got it in the dispatch and you don't use it, somebody else on the Southern Company System uses the power out of that, what do they pay you for it?

WITNESS HOWELL: They pay the way we do the dispatch is all the units on the Southern System are dispatched as if it were a single load to get the lowest cost. Then each hour you compare what a company generates as opposed to what its load was in that hour. If it is a surplus company, let's say that Gulf

generated more energy in a hour that its territorial load was, and Scherer were one of those units that were in the dispatch, we take the highest cost units that were running that hour and that's what sold through the interchange, so that a Company's customers gets the lowest cost resources that were running that hour and the higher cost are sold through the pool.

CHAIRMAN WILSON: All right. Is sort of the way you charge your on-unit power sales? That chart we saw earlier, you look at what your territorial load is going to use, and you look at what's in excess of that and that's the higher priced power which you have available for sale under the -- under unit power sales?

WITNESS HOWELL: Okay, under unit power sales. Yes.

CHAIRMAN WILSON: The same way in the dispatch system, the lowest power that you generate is for your territorial customers?

WITNESS HOWELL: Yes.

CHAIRMAN WILSON: And anything that goes off system, or within the system but out of your territory is charged -- the higher priced generation is charged out.

WITNESS HOWELL: That's right. And just to be sure we're clear on that, the territorial load of

Southern, every customer in Southern is served before any other energy is served, but there are transactions among the companies, within each company. He either generates with his resource or buys from somebody else cheaper than he could generate. But all the Southern System resources are served first before anything is sold off system. So we get the cheapest.

CHAIRMAN WILSON: So if you are using the power out of Scherer -- well, it depends on where it falls, right?

WITNESS HOWELL: Yes, sir. If, in fact -- let's say our load is 1500 in one hour. And we're generating 1200 even with Scherer, some unlikely scenario, we're going to be buying power from the pool in that scenario. If our load is 1200, we're generating 1500 and Scherer is one of those, it probably will be one that would be sold during that hour. It all depends on the relationship of your load, your generation and what the difference in load and generation, if that's -- the price of those units.

CHAIRMAN WILSON: Is there ever a circumstances where you would be buying power that's generated by Scherer?

WITNESS HOWELL: Georgia's portion? Yes, sir, that could happen. If Scherer were the

incremental unit the system, let's say.

CHAIRMAN WILSON: What about your own portion, it's not in your rate base, does that make a difference?

WITNESS HOWELL: It doesn't matter. We own the unit so our customers get it even though they are not paying for it right now.

CHAIRMAN WILSON: If they did pay for the power out of there, and it still weren't in rate base, where would that be recovered, through fuel adjustment.

WITNESS HOWELL: It'd noy recovered. Are you talking energy or the capacity?

CHAIRMAN WILSON: Is it not recoverable?

WITNESS HOWELL: The capacity, nobody is paying for it right now; the stockholders are just eating it. That's why Mr. Scarbrough said our rate of return is so low, the territorial customer, who is the rightful person to pay for it, is not paying for it because it's not in base rates.

CHAIRMAN WILSON: Capacity payments don't flow through the IIC? Are there any capacity payments associated with tne power purchased under IIC?

WITNESS HOWELL: Yes. In that respect it is a resource to us, so all we get is, if we sell it, is our average embedded cost of all our resources, which

is something under half of what Scherer's cost is.

CHAIRMAN WILSON: I'm associating this with the discussion we had earlier, and I don't recall which witness it was, maybe it was Mr. Dawson, where it almost appears that some units in the Southern System are operating as independent power producers.

WITNESS HOWELL: What he was referring to there is what some have accused us, kidded us, alleged, however you want to say it, if we have, for example, Unit Scherer 4, and let's say it has not gotten in rate base, and it's being sold in unit power sales, then that unit kind of looks like an independent power facility, and I guess according to the proposed rules of FERC that they never finalized, that the owner would be an independent power producer. In fact, the unit was, you know, committed for long term territorial use, but right now it's just not being recovered.

CHAIRMAN WILSON: That's why I asked about the capacity, whether there were capacity payments. If you sell power from Scherer to any other operating company in the Southern Company System through the contract, they'll make capacity payments to you?

WITNESS HOWELL: Yes.

CHAIRMAN WILSON: But if you buy it from yourself -- I mean it's not in rate base, so it's in --

WITNESS HOWELL: We've got it. It's a resource to us.

CHAIRMAN WILSON: Regulatory limbo that exists there. You're sort of buying it from yourself, you only recover the energy through fuel adjustment, but no capacity payments?

WITNESS HOWELL: No, no. The fact that it's a resource to us, whether it's in rate base or not, the fact that it's a resource to us, we get credit in the interchange contract for the capacity payments. If it's not sold off system and it's a resource to us, and it's the 63 megawatts is not sold off system so it is a resource to Gulf's customers, you get credit through the interchange contract for it. The fact that --

CHAIRMAN WILSON: Is this all clearly shown on some schedule somewhere, if it's possible to clearly show this at all.

MR. HOLLAND: Commissioner, it's in the Surveillance Report that's filed monthly with the Commission from the time that Scherer capacity came on line.

CHAIRMAN WILSON: I understand that. What you've done is you've put in an additional investment that you have and it increases your rate base and reduces your earnings --

MR. HOLLAND: Right.

CHAIRMAN WILSON: -- and reduces your rate of return?

MR. HOLLAND: Right.

CHAIRMAN WILSON: I don't think that's what I'm talking about.

MR. HOLLAND: But the IIC payments that are associated that we get from that Scherer capacity be included in the IIC calculation are also in the Surveillance Report. We get the capacity payments that we receive through that, our credit against our costs, and they flow through to the benefit of the ratepayer.

CHAIRMAN WILSON: And would serve as an offset to the amount that ratepayers would be paying on that if it were included in rate base and you were recovering rates based on that?

WITNESS HOWELL: That's correct. And that is -- that assumption is included in the case as filed, that we are getting credit for it; we show the credits we get through the interchange contract for that amount of capacity. But I just want to emphasize that the Scherer capacity is 63 megawatts. If we had 63 megawatts of something else, we would still only get credit for our average embedded cost when we sell an interchange, just as that's what we paid when we used

to buy.

CHAIRMAN WILSON: Okay. Any further questions. Redirect?

REDIRECT EXAMINATION

BY MR. HOLLAND:

Q Mr. Howell, just to make sure that the record is clear on this, and I want to refer specifically to the 63 megawatts so that we can be clear on the record, the treatment. In -- when the 63 megawatts was returned to territorial service or came into territorial service, for purposes of the Surveillance Report, was that included in Gulf's rate base?

A It's my understanding it was, yes.

Q Would the associated IIC payments also be included in that calculation?

A Yes.

Q And not to be redundant, but in terms of the questions that you have been asked and in terms of the questions that were asked of Mr. Dawson, if the 63 megawatts is included in Gulf's retail rate base, for purposes of this rate case, and rates are set to recover the investment associated with that; and, subsequently, the 63 megawatts is sold in UPS, would the investment and expenses associated with that

capacity be likewise removed for purposes of the Surveillance Report?

A Yes, it would. And what I tried to point out earlier is, you know, depending on when that takes place, a lot of new investment will be added to the Surveillance Report. But whatever the situation is regarding the Scherer in the rate base or out of the rate base is reflected in the monthly Surveillance Report, so it will be very obvious to for everybody if the hypothetical that we suggested does occur that, you know, the world stops, and we get it in base rates and then it's sold, and that causes us to earn more than the range said. It will just stand out like a red flag, I think, on the Surveillance Report. So it won't be a secret if that happens.

Q Are there other examples of this type of -- and I won't call it a phenomenon because I think it's reality. But are there plant items that will be retired, for example, that are in rate base today, but will be retired in 1991, 1992, or 1993?

A There are items being retire -- I'm sorry, were you finished?

Q Yes,

A There are items being retired from our rate base all the time, from our plant in service. The

Commission sets rates based on a certain rate base that it decides is appropriate for the test year. Well, the very next day we go out and we pull out a distribution pole; we retire it. It's no longer there, even though rates were set on that. We have items all the time that we're retiring: transmission poles, conductors, transformers fail. All these things are being pulled out, and this has happened, you know, ever since we've been coming in for rate cases, that items that are, if you will, approved in the rate base at the time are not there the next day because the system is fluid. I think the critical thing to focus on, though, is to look at what happens to the rate base, and it's always growing, always increasing if you're a growing company as we are.

Q Would those retirements be excluded from rate base for purposes of the Surveillance Report?

A Yes. They'd have to be pulled out.

Q Would other items, the poles that replace the poles that had been retired, transmission line, whatever, be put in?

A Those would have to be put in, yes.

CHAIRMAN WILSON: They are put in, in fact.

WITNESS HOWELL: I can guarantee you with 99.99% certainty that Mr. Scarbrough's people don't

make that kind of error. Arlan says 100.

Q Does the existence of a cogenerator -- and I believe, if I'm not mistaken, Gulf Power has about 100 megawatts of cogeneration on its system, self-serve -- would that 100 megawatts that Gulf Power is not serving, would that impact the IIC payments or the IIC calculations.

A Well, the way that works -- and I think at one time we had far greater than 100 megawatts of cogeneration for our size. We had more cogeneration than almost any other utilities that I know of. But that was embedded, if you will, in the load. It reduced from what they otherwise bought from us. And that amount of cogeneration that was in the load was, if you will, considered sunk in the load; it was there. And it's been there for a number of years and has been part of the system, was put in during the time when we were adding capacity. So it is just considered a part of the load.

Any new cogenerator who came in, obviously, would not be treated that same way, because it was not added in a time when we were needing capacity.

Q But if a cogenerator came on line to the extent that the Commission's rules and regulations called for the payment of avoided capacity payments, we

would comply with the Commission's rules and regulations?

A Yes. We would certainly comply with their rules and regulations. And like I said, if we felt like that was not appropriate, couldn't find who the person was that audited this, we would exhaust all the administrative options to us. But we would comply with the Commission's orders, as far as what we do with the capacity.

Getting recovery for the interchange, you know, it just -- you can't do it if you don't need the capacity. So our customers would basically have to eat that capacity.

Q If Gulf Power went out today with reserves of between 20 and 25% and added a 200-, 300-megawatt unit, could it get credit for that in the IIC?

A No. Just as we wouldn't want our customers to finance Georgia doing a similar type of activity.

MR. HOLLAND: That's all I have.

CHAIRMAN WILSON: You wouldn't have the option to take a plant like Scherer that's not in the rate base and consider it a wholesale generator and then sell power to yourself?

WITNESS HOWELL: I think that's a legal question that I'm not the right person to ask.

MR. HOLLAND: Commissioner, let me just state --

CHAIRMAN WILSON: He gives such great answers, that's why. Any questions I have I was going to ask you because --

WITNESS HOWELL: Well, I always try to answer those questions that I feel that I know the answer to. I'm not the right person to ask that to. That would be what we call a "can of worms coming out of Pandora's box."

MR. HOLLAND: I'm getting very worried about this discussion about IPPs, because under current law and holding --

CHAIRMAN WILSON: I know, you can't be one

MR. HOLLAND: We can't be one. I don't think what we have done is an IPP, and I hate to have it characterized as such.

CHAIRMAN WILSON: This is speculation is all.

MR. HOLLAND: I understand.

COMMISSIONER GUNTER: Sometimes, though, we see -- it's sort of interesting -- sometimes we see our speculations that are recorded showing up as attachments to the pleadings in Federal Courts.

MR. HOLLAND: You're right, we've experienced that to a great extent in some litigation we're

currently involved in.

CHAIRMAN WILSON: Not to mix metaphors, but we don't think we've found the smoking duck here? (Laughter)

WITNESS HOWELL: Commissioner, let me comment on that since you did bring it up, and that was an allegation that --

CHAIRMAN WILSON: I hope you got your Counsel in the corner of your eye there so you're seeing what he is -- (Laughter)

WITNESS HOWELL: He wants to hear this, I think.

We didn't go out and build this capacity to be any IPP that was built by a territorial customer.

(Simultaneous conversation.)

These unit power sales that resulted, we've talked about the reasons why they came about. We never intended to be any IPP or go out and build these things to sell off-system and benefit the stockholder and all these other strange allegations that have come out of the woodwork. The entire purpose of them was for the territorial customer and they were still committed for his long-term benefit.

CHAIRMAN WILSON: Anything further?

MR. HOLLAND: No.

CHAIRMAN WILSON: All your late-fileds -- all exhibits will be either stipulated or late-filed? So, thank you very much, Mr. Howell.

(Witness Howell excused.)

CHAIRMAN WILSON: Let's take about ten minutes and then we'll finish out the afternoon.

(Brief recess.)

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(Transcript follows in sequence in Volume XI.)

(Page No. 1560 omitted in numbering.)