BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of	:	DOCKET NO. 001064-EI
PETITION FOR DETERMINATION OF NEED FOR HINES UNIT 2 POWER PLANT BY FLORIDA POWER CORPORATION.	:	

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VOLUME 4

Pages 313 through 498

PROCEEDINGS: HEARING

BEFORE: COMMISSIONER E. LEON JACOBS, JR.
COMMISSIONER LILA A. JABER
COMMISSIONER BRAULIO L. BAEZ

DATE: Thursday, October 26, 2000

TIME: Commenced at 8:40 a.m.

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: KORETTA E. STANFORD, RPR
Official Commission Reporter

APPEARANCES:

(As heretofore noted.)

I N D E X

I N D E X (Continued)

EXHIBITS

P R O C E E D I N G S

(Transcript continues in sequence from Volume 3.)

COMMISSIONER JACOBS: Good morning. We'll go back on the record. And, I believe, we were about to do redirect for Mr. Crisp.

JOHN B. CRISP

continues his testimony under oath from Volume 3:

REDIRECT EXAMINATION

BY MR. SASSO:

Q All set?

A Yes.

Q Mr. Crisp, Ms. Brownless was asking you yesterday some questions about Florida Power Corporation's RFP. In developing that RFP, did you have occasion to review RFPs that were used by other utilities?

A Yes, we did.

Q In fact, did you take it upon yourself to review the Gulf Power RFP that had been approved and reviewed by the Commission?

A Yes, sir.

MR. SASSO: I have a certified copy of that RFP, and I'll give the original to the clerk, and then, I have copies for everybody.

COMMISSIONER JACOBS: That's the same version that's in the -- is that in this package, the big package?

MR. SASSO: This is the Gulf Power.

COMMISSIONER JACOBS: Oh, I'm sorry.

MS. BROWNLESS: I think, at this time we would object to this piece of evidence, if it's going to be proffered.

COMMISSIONER JACOBS: Okay. State your objection.

MS. BROWNLESS: Well, what Mr. Crisp has testified to is that he's reviewed this RFP. He cannot testify as to the authenticity of this document because, I assume that he did not prepare it. All he can testify to is that this is a document, and he reviewed it. And if his testimony is limited to that, that's fine, but he can't authenticate this as being a true and correct copy of the RFP document.

MR. SASSO: Mr. Chairman, that's why we have a certified copy from the Clerk of the Public Service Commission.

COMMISSIONER JACOBS: This is the document that's been filed with the Commission?

MR. SASSO: Exactly.

MS. BROWNLESS: Where is it certified? I don't see any --

MR. SASSO: I gave the original to the clerk, Ms. Brownless. If you'd like to see it, I can bring it

over to you.

MS. BROWNLESS: Yes, I would like to see it.

COMMISSIONER JACOBS: If it is a document that is on file with the Commission, we can take official recognition of it. Would you agree with that?

MS. BROWNLESS: Sure. I just want to make sure that this copy is the same thing.

Thank you. Great, thanks.

COMMISSIONER JACOBS: So, rather than --

MS. BROWNLESS: I'll withdraw my objection, then, thank you.

COMMISSIONER JACOBS: Okay.

BY MR. SASSO:

Q Mr. Crisp, did you take into account this RFP in developing Florida Power's RFP?

A Yes, sir, we did.

Q And can you tell me how the Gulf Power RFP compares to the Florida Power RFP with respect to the discussion methodology?

A Yes. In reviewing the Gulf Power RFP evaluation methodology, we reviewed it in detail. We found that it was a good description of the evaluation process. We, in fact, used the analysis process and the methodology in our RFP. In fact, we made our methodology somewhat more detailed.

Q All right. Now, the Gulf RFP, reading from Page 6, under proposal evaluation, paragraph 2, says that "Proposals that pass the preliminary responsiveness screens will be further evaluated using appropriate production costing methods and models so that all reasonable cost impacts can be quantified."

Is that similar to the language that Florida Power used in its RFP?

A Yes, sir.

Q Did Gulf indicate that they were going to use PROSYM or PROSCREEN?

A No, sir.

Q Now, Mr. Crisp, in dealing with Panda during the RFP process, did the representatives of Panda complain at any time to Florida Power Corporation about its RFP?

A No, sir, they did not.

Q Did the representatives at Panda complain at any time to Florida Power about the process?

A No, sir.

Q Did the representatives of Panda have opportunity to ask for clarification, get information, to interact with Florida Power Corporation during the process?

A Yes, sir, very much so. We had several interactive sessions with Panda to provide them such

opportunities.

Q Did Panda attend the pre-bid meeting that you conducted?

A Yes, sir.

Q How was that meeting conducted?

A From what standpoint, how is the meeting conducted?

Q Did participants have the opportunity to ask questions, receive information and clarification?

A Yes, sir. A presentation was given at first, generally, describing the RFP process. And then, the floor was opened to questions from all participants so that everyone could share questions. And all those questions were documented, and a full transcription of the meeting was prepared and put on a web site.

Q Did you receive any complaints from any of the participants about the RFP or the process that you were using?

A No.

Q Mr. Crisp, do you have experience with other bids, other RFPs?

A Yes, sir, I do.

Q Can you tell us what that is, please?

A I've participated in 9 successful RFPs; that means, all the way from the initial -- the planning and

the request for proposal, all the way through the negotiation process and to the completion and construction of the facility. And that totals over 4,000 megawatts of generating capacity.

Q Based on your experience, what have you observed about the nature of opening bids?

A Opening bids are, I guess, in the terms of some of the people that do these things, are called a beauty contest. That's where everybody puts in their best -- they put their best foot forward. They know they've got a considerable amount of competition, and they've got to come in the lowest that they possibly can to get on the short list. That's the intent is to try to get on out there and beat everybody else at the first few steps. So, it is the best possible price you can put forward.

Q And based on your experience, what happens to the price after that beauty contest offered, typically, as you go through discussions and negotiations?

A Prices become higher.

Q Now, in this case, did Panda have any reason to know how many other bidders were participating in the process or who had submitted bids?

A They certainly did. At the pre-bid meeting there were 13 to 10 deeds, 13 companies represented. And there were 12 that provided notice of intent.

Now, from Panda's perspective, knowing that there were 13 companies represented at the pre-bid meeting and that the fact was that with 12 providing a notice of intent, there's considerable amount of competition going on at this point.

So, from the bidder's perspective, they've got to go out and beat what they perceive to be the level of competition in the field that's out there right at that point and time. To the best of their knowledge, that's who they've got to beat. It's not a two-bid issue at that time. It's a full complement of all of the bidders coming after this perspective bid.

Q In fact, did you ever tell Panda during the process that there were only two bidders?

A No.

Q So, from all they knew, they were competing against 12 bidders?

A That's correct.

Q Now, you mentioned, in discussing this with Ms. Brownless, that it's possible that the terms and conditions of a proposal might change in final negotiations. Can you explain how that works in your experience?

A Yes. Generally, in negotiating terms and conditions, as you get into more of the operating details

of how the plant's going to be operated, what happens is the bidder tends to say that's not what I expected, so I need to change a reflective price.

So, for instance, start-up costs can go up, O&M can go up, capacity charges and energy charges or variable O&M charges can be adjusted as you go through the terms and conditions. Discussions of availability may lead to some negotiation that ultimately results in a list, an acceptable list offer, that's less acceptable to the purchaser.

Q Now, in fact, in this case, Panda initially provided a 250 megawatt power block, and you went back and asked them to provide another 250 megawatt power block; is that right?

A That's right.

Q And they did offer you another 250 megawatt power block, correct?

A That's correct.

Q Was that more expensive or less expensive than the first one?

A It was considerably more expensive. It was $9.10 a kW month versus the original block of $6.75 kW a month. So, that's approximately 30% higher.

Q Now, you also asked Panda to try and meet your long-term need and gave you a commitment beyond five

years; is that right?

A That's correct.

Q And how did they respond to that?

A They would not go past the 5-year contract offering. They wanted to take the additional megawatts and proceed back out into the market as a merchant operation.

Q All right. Now, in this instance, in fact, you only had two bidders, you didn't have all 12 people participate by making proposals. Did that have any impact on the amount of time and attention you were able to give to those two bids?

A Yes, it did. We had considerably more time to spend with each one of the two proposals, obviously, so we went to a greater degree of detail in working with each one of the bidders in give and take and gathering additional information and using that information to evaluate the bids.

Q Do you feel that was an advantage for Panda or disadvantage?

A Considerably, because Panda's original offer --

Q Was it an advantage or a disadvantage?

A I'm sorry. It was a considerable advantage for Panda.

Q And why is that?

A Because it gave Panda additional opportunities to talk with us, to come back and make the additional offering for the second power block and to provide additional information concerning the proposal that they had not made in the first place.

Q Now, originally, in your RFP you had contemplated that you would have an initial process and then you would winnow down the list to a short list and then have negotiations. Because you had only two bidders, were you actually participating in some negotiations with these bidders?

A Yes, we were. We were going through a considerable amount of information that would have happened. As I said, we went through the initial screening, then we went through a supplemental screening.

In that process, you're going through discussions with the bidder in gathering additional information, providing additional information, more detailed information that would happen in a short list environment.

Q Now, there came a time, as I understand it, when you contacted Mr. Doaks and indicated to him, Panda's representative, that you were not going to be pursuing a proposal any longer. At that time, did Mr. Doaks or anyone from Panda tell you that they hadn't given you

their best price yet?

A No.

Q Did they tell you they had more value to give you and they wished that you would continue with negotiations?

A No, they made no indication of that.

Q Did you have any reason to expect that if you continued with discussions with Panda that their proposal would get any better?

A No.

Q Now, you also had a series of questions about Florida Power Corporation's answers to Interrogatory Number 19. And, I believe, this is set forth in -- these answers are set forth in Exhibit Number 7. Do you have that in front of you?

A Yes, I do.

Q Could you turn to the third page of this document, which is production costing runs for the Panda 530 case?

A I'm there.

Q And look at the fourth column over after the year. It's captioned, "New Resource Fuel and O&M Revenue Requirement." Do you see that?

A Yes, sir.

Q Do you remember yesterday Ms. Brownless asked

you a series of questions about the numbers for years 2004, 2005, indicating that those numbers were higher for Panda --

A Yes, I do.

Q -- than for Hines? And you talked about the fact that these numbers reflected fuel and O&M. Were Panda's numbers higher because you were attributing to the Panda project a higher fuel cost?

A No, I was not.

Q Can you explain why those numbers are higher for Panda?

A Those numbers are higher, because that includes the capacity payment for Panda.

Q Why did you include the capacity payment in that column?

A Because capacity and energy payments are passed through to the ratepayer.

Q Is that with respect to power purchase agreement?

A That's correct.

Q But that's not true for the Hines project.

A That's correct.

Q Not with the production costing runs.

A That's correct.

Q That would depend on cost recovery issues, which

we're not addressing today; is that right?

A That's correct.

COMMISSIONER JACOBS: Could you walk me through that discussion once again. What you're saying is that capacity cost of Hines aren't being figured into the installation cost?

BY MR. SASSO:

Q Maybe we can do it this way. Mr. Crisp, if you can just compare the column on the third page of this exhibit for Panda 530 case for Panda against the same column for Hines 2 and tell us what explains the difference, the discrepancy.

A You're talking about the new resource fuel and O&M revenue requirement?

Q Yes, sir.

A Okay. For the year -- if you will look, please, at the previous page as well, Hines 2 case, Interrogatory 19, you'll notice that in the year 2004, the number in the fuel and O&M revenue requirement is 71065. In the following page on the Panda 530 case, you'll notice that the number is one hundred 156; in other words, the Panda case is showing a roughly $29 million higher number. That $29 million is associated with the capacity payment, as well as fuel and O&M.

Q And with respect to a power purchase agreement

under the regulatory policy in Florida, how does the company recover the cost of the capacity and fuel paid under a power purchase agreement?

A Through recovery clauses.

Q So, those are passed directly through to the ratepayer?

A That's correct.

MR. SASSO: Mr. Chairman, does that address your question?

COMMISSIONER JACOBS: (Inaudible response.)

BY MR. SASSO:

Q Now, with respect to Panda's fuel cost, I believe, Ms. Brownless implied through her questions yesterday that if Panda was able to negotiate a better fuel price in the future, Florida Power might benefit from that. Can you tell us how the Panda proposal was actually bid to Florida Power on fuel cost?

A The Panda proposal was bid on the basis of fuel being supplied by Gulfstream.

Q And was it given on the basis of a particular price or a gas price index?

A Yes. It was provided -- the Panda proposal included a statement that said gas would be provided on an index basis; in other words, an index for Florida would be established, and that would be the reflected gas price.

Q All right. And was this index intended to be representative of the market price for gas in Florida?

A The index is trended along with the market.

Q So, let's suppose that the market price for natural gas rose in the future. Would Florida Power Corporation be expected to absorb that under Panda's proposal?

A That's correct.

Q But let's suppose Panda was, in fact, able to negotiate a below market gas arrangement in the future. Who would get the benefit of that under their proposal?

A The Panda owners.

Q Now, let's suppose that Florida Power were able to negotiate a more advantageous below market gas arrangement in the future. Who would get the benefit of that if Florida Power builds the Hines plant?

A The Florida Power Corporation ratepayers.

Q Now, also, with respect to the heat rate, Ms. Brownless was asking you questions about heat rate and isn't it possible for Panda to improve upon its heat rate in the future. How did Panda bid its heat rate to Florida Power Corporation as part of its proposal?

A They quoted a fixed heat rate.

Q Now, let's suppose that Panda were actually able to achieve a better performance in the future. Who would

get the benefit of that?

A The Panda owners.

Q Now, let's suppose Florida Power were able to achieve a better efficiency than its heat rate indicated in the future. Who would get the benefit of that?

A Florida's ratepayers.

Q Now, did Panda have any gas contracts in place at the time that Panda was making its proposal?

A Not to my knowledge, no.

Q Who did Panda reflect as the potential source or the expected source of gas supplier for that project?

A The Gulfstream.

Q And did Gulfstream have a pipeline in Florida at that time?

A No, they do not.

Q Now, with respect to the Hines 2 project, what assumption did you make about the source of natural gas?

A We assumed FGT supply.

Q Was that conservative or aggressive in relationship to Panda's proposal?

A It's very conservative.

Q Now, did you perform any sensitivities where you assumed that you might also be able to obtain supply from Gulfstream?

A Yes, we did.

Q And what did that indicate?

A It indicated that the net effect of going from FGT to Gulfstream for the Hines project would save an additional $17 million.

Q Over the Panda project?

A That's correct.

Q Okay. Now, we also spent a good deal of time yesterday talking about comparing Panda to Hines on the basis of a 5-year run looking at just the two projects on a 5-year basis. Why didn't you stop the computer at five years?

A Because we have a need for the full 25-year time frame.

Q As a result of your participation in the reserve margin docket and in your capacity as the director of planning for Florida Power Corporation, have you gained an understanding of the Public Service Commission's Staff's position on reliance by utilities on unspecified purchases to meet reserve margin obligations in the last five years of their planning period?

A Yes, sir.

Q And what is that position?

A Staff is not tolerant of not identifying the sources from which the utilities will be meeting their load requirements. They don't like unspecified amounts of

capacity in their 10-year site plan to meet their load requirements.

Q All right. Let's just assume, for the sake of argument, that it was possible or appropriate to make a 5-year comparison. If you look at the answer to Interrogatory Number 19 again and if you were to compare the Hines 2 case, which is the second page, against the Panda 530 case, and if you were to stop the computer at five years and take a snapshot there after five years in service, which would be the year 2008, would the Hines case still be more cost-effective than the Panda case?

A Yes, it would.

Q And, in fact, you did 25-year runs, and Ms. Hart asked you some questions about isn't it possible that as you go further out into the future, 20 years, 25 years, fuel projections and load forecasts may be more speculative. What is the cause for the difference, the discrepancy or the delta, as you might say, between the Hines case and the Panda case? Is it based on some projections about what might happen with fuel 20 years out or 25 years out?

A No. It's right up in the front. It's the difference in the total value of the Hines plant versus the Panda proposal in those two to five years.

Q And what was the best case for the Panda

proposal?

A The best case for the Panda proposal, Hines beat Panda by approximately $60 million.

Q But in terms of the number of years that Panda might be operating, what was the best scenario for Panda, how many years?

A A 2-year term.

Q So, is it fair to say that the cost impact was attributable to substituting Panda for just those two years?

A That's correct.

Q And it wasn't attributable to some assumptions you were making about fuel 25 years out?

A It had nothing to do with that.

Q Now, with respect to the runs that you did make, were you assuming straight line depreciation for Hines 2?

A Yes, sir.

Q What impact does that have on the cost allocation over the 25 years?

A Straight line depreciation on a capital project tends to heavier weight the capacity component, the capacity payment, for the Hines project in the front end of the project.

Q What if you were just to average the cost of Hines over 25 years and then you were to compare Hines to

Panda over those five years. Would that make Hines more attractive or less attractive?

A Much more attractive.

Q Now, Panda also offered you -- didn't offer, but -- let me put it this way.

Panda proposed to build two plants of 1,000 megawatts in Florida; is that right?

A That's correct.

Q And, as I understand the proposal, they offered to make a commitment of 530 megawatts for five years; is that right?

A That's correct.

Q And was that the maximum commitment they were prepared to make out of those plants?

A The maximum commitment was 530 megawatts.

Q Were you able to obtain a firm commitment for any other capacity out of either of those plants for Panda?

A No, sir.

Q Would you be able to count any of the remaining 1,500 megawatts toward Florida Power's reserve margin, if they went ahead and built those plants.

A No, sir.

Q Now, we also had some discussion yesterday comparing combustion turbines to peakers. Ms. Hart asked

you some questions about that. Do you have before you Staff Exhibit Number 10?

A Yes, I do.

Q Could you turn to the second to last page which is 000064?

A I'm there.

Q I may have misstated what we were about to talk about. As I understand it, the comparison was between combustion turbines and peakers -- I'm sorry, combined cycle and combustion turbine peakers. I misstated it again. Can you tell us what this exhibit indicates; what is this and what does it indicate?

A Well, what Staff asked us to do was to force a peaker in, in the first -- instead of building Hines 2 in the first year. And when we did, we forced the peaker in. The expense was considerably higher than the Hines option. And by that, it was $148 million higher than the revenue requirements for the Hines project. It also ultimately, when you put that peaker in, it only satisfies the need for one year. We immediately had to follow it up again with the Hines 2 project right behind that.

Q Now, we also had some discussion with Ms. Hart about the fact that the cost impact of selecting Panda over Hines or the savings, to put it differently, of Hines over Panda, amounted only to a small percentage of the

company's total system cost. Could you explain, again, what's in the denominator of that fraction?

A I understand. As I recall, we were talking about maybe a 1/4% or a 1/2% difference in the comparisons. And what we were talking about there is what they were using as the denominator, they're using the entire total production cost over a 25-year time frame of the entire Florida Power Corporation fleet. Every single unit, nuclear, coal, peakers, everything, all of -- or fuel, all of those costs were used in the denominator. And that is very much an apples to bananas comparison.

Q Now, are the cost savings that may be associated with any one plant ever going to be large as a percentage of your total system cost?

A No, they're not.

Q Can you approximate the cost savings as a percentage of the total cost of this one unit?

A If you look at the Hines unit by itself, the cumulative revenue requirements for Hines, for the life span, is approximately $360 million. So, if you took the benefit to the Hines project, how much money we saved by doing Hines, which is roughly $60 million, and divide by 360 or put the 360 in the denominator, you're talking about an 18% savings for the ratepayers by doing the Hines project versus the Panda project.

Q And do you expect that would be significant to your ratepayers?

A $60 million should be very significant to the ratepayers, absolutely.

Q Now, with respect to cost-effectiveness, Ms. Hart asked you whether the production costing runs were a significant contributor to your decision and, I believe, you indicated that they were. Were there other factors that contributed to your conclusion that the Hines plant was a more cost-effective alternative?

A Yes, there were.

Q Can you tell us what those factors were?

A Yes, sir. We'll start with the fact that you're building a second plant on a site. The Hines 2 plant would be the sister plant, if you will, to the Hines 1 plant. So, there are economies of scale. You've got similar spares on the side. So, you'd have savings to the ratepayers from spares inventories, and those are considerable savings.

You have duplicate systems; in other words, for the system control of those two individual generating units, the system control components can be similar or are the same. You can use one for both of them. You've got one cooling pond that's already built, and it's adequate for the second Hines unit, so you don't have to build a

cooling pond. And that's just the site benefits.

There's dispatch flexibility benefits; in other words, our ability to ramp up and ramp down the Hines unit at a moment's notice or put it on computerized automatic generation control, so it can follow a load by itself.

Fuel diversity; we talked about fuel diversity from a reliability standpoint yesterday, that it's good to have distillate, as well as natural gas supplies on the site. In case something happens to the pricing on either, you've got the reliability aspect from a supply standpoint.

You've also got the economic value of having two fuels coming into that facility. What I mean by that is if gas prices shoot through the roof, you can run over a day or two or three, as the case is, on either of those Hines plants. It's a tremendous amount of savings. And you can do that, backfill your tanks, keep your tanks full, keep going; you can do this on a very regular basis and save a tremendous amount of money for the ratepayers from what's called fuels arbitrage. And that's playing the value of gas against the value of oil -- and the converted value of the electricity, I'm sorry.

COMMISSIONER JACOBS: Many of those factors, you would expect would have direct cost ramifications; i.e., you'd expect to see some of those economies show up

directly in your cost. And I would expect, then, to see your column of the PWRR column.

THE WITNESS: Yes, sir.

COMMISSIONER JACOBS: Let me ask the question. How would that impact over the life of this analysis? Wouldn't you expect this column to begin to grow at a slower pace versus the Panda analysis?

THE WITNESS: No, sir. These benefits are not included in the PWRR calculations.

COMMISSIONER JACOBS: Okay.

THE WITNESS: They're not doubly counted. These are -- they're benefits that are attributes associated with the site and the Hines unit itself that are -- from a direct standpoint they're not included as a direct cost for the unit or the direct cost for the fuel to supply that unit.

They are downstream values where revenue can actually be captured. Money can actually be saved for the ratepayer, but it's downstream of the cost impact -- the direct cost impact to the plant and the direct cost for the fuel to supply that plant the direct O&M for that plant.

BY MR. SASSO:

Q Would building the Hines 2 plant have any environmental benefits for the company?

A Significantly. By building the Hines 2 plant as opposing to contracting for the plant, we will have the ability to tap into that plant as a potential for a base load unit in case -- once again, this is kind of an arbitrage thing, too, you are able go out into the markets today and buy SO-2 alliances for your coal units.

Those prices for those coal units are getting higher as time goes on. And the advent of the Hines unit allows us to run it, either at an intermediate or a base load, in case those sulfur dioxide emission allowances become cost prohibitive. So, it gives us the ability to improve our environmental stance within the fleet.

COMMISSIONER JABER: Mr. Crisp, I want to go back to the -- you mentioned there would be savings to the ratepayer, because of the economies of scale locating Hines 2 on the site where Hines 1 is?

THE WITNESS: Yes.

COMMISSIONER JABER: How do the savings associated with economies of scale actually flow through to the customers? Where would the customers see that benefit?

THE WITNESS: Commissioner, they would be reduced expenses, reduced operating expenses. In other words, down through the chain of the overall costs to operate and maintain the unit, those numbers would shrink.

So, it would take less money to run the plants from a standpoint of having two units on the site versus -- and even three units on the site, versus one unit on the site.

COMMISSIONER JABER: But those expenses, you would try to recover in a rate case. So, absent any rate case, the ratepayer really doesn't feel the benefit, right?

THE WITNESS: From a rate recovery standpoint, I would not know the effect of that.

COMMISSIONER JABER: Okay.

COMMISSIONER JACOBS: That's the point that she got at much more artfully than I did.

Did your analyses anticipate Hines 3 and 4 coming onboard at all so that you would see some of these economies of scale being reflected, not only in those units coming on, but also in the out years cost to operate Hines 2?

THE WITNESS: We do not include those numbers, those downstream numbers, in the 10-year site plan and the IRP evaluations.

COMMISSIONER JACOBS: Okay.

THE WITNESS: They're incremental benefits, if you will.

MR. SASSO: At this time, I have no further questions, but I would like to have the Gulf Power RFP

marked as, I believe, it's Exhibit 11. And I would move that into evidence.

COMMISSIONER JACOBS: Very well. Show that marked as Exhibit 11.

(Exhibit 11 marked for identification.)

MR. SASSO: And, I believe, yesterday we already moved in and had admitted Mr. Crisp's composite Exhibit --

COMMISSIONER JACOBS: We did.

MR. SASSO: -- Number 5, I believe, it was.

COMMISSIONER JACOBS: You asked for 11 to be admitted as well?

MR. SASSO: Yes.

COMMISSIONER JACOBS: Show that Exhibit 11 is admitted.

(Exhibit 11 admitted into the record.)

COMMISSIONER JACOBS: Nothing else for Mr. Crisp?

MR. SASSO: No.

COMMISSIONER JACOBS: You're excused.

MS. BROWNLESS: Don't we get recross on items that he brought up?

MR. SASSO: Mr. Chairman, we would object to any recross. It's within your discretion. Certainly, Panda has no right to recross. Panda had Mr. Crisp on the stand fully for over five hours yesterday, and we've had barely

a half hour today. It's really unjustified.

COMMISSIONER JACOBS: What's the motivation for your --

MS. BROWNLESS: I've got three questions.

COMMISSIONER JACOBS: Based on?

MS. BROWNLESS: Fuel price, weighting on the front end for the Hines Unit 2 unit and the PWRR analysis, and justification for the $360 million cost savings if only the Hines Unit 2 was compared to Panda.

COMMISSIONER JACOBS: The recross, I think, would be mostly legitimate if there were issues raised on redirect that weren't anticipated. I didn't hear any issues brought up, in fact, that were outside your scope of cross. I'm trying to understand what might be there that was unanticipated or outside the scope of your cross.

MS. BROWNLESS: I'd like to just ask those three questions, if I can. I certainly will understand the rule.

COMMISSIONER JACOBS: If you would, very briefly.

RECROSS EXAMINATION

BY MS. BROWNLESS:

Q With regard to the fact that any fuel savings Panda would get would not be passed on to Florida Power Corporation, is that a condition that could have been

renegotiated by Florida Power Corporation at the end of whatever options Florida Power Corporation exercised with Panda?

A Well, I think, the point there is that that should have been brought in, in the proposal. That's what we asked for.

Q Okay. Is that yes or no, and then, an explanation.

A Please restate the question, then.

Q The ability for Power Corp. to benefit from Panda's fuel pricing, whatever contracts for fuel Panda was able to negotiate, is that an item that could have been renegotiated at the end of whatever contract term Power Corp. selected?

MR. SASSO: I believe, Mr. Crisp answered that question.

MS. BROWNLESS: Well, he didn't, actually. He had an explanation. So, I need him to say yes or no.

COMMISSIONER JACOBS: Excuse me. You objected to that question.

MR. SASSO: Yes, I objected, because he did answer that very question.

COMMISSIONER JACOBS: Could you restate your answer, please, for the record, Mr. Crisp?

THE WITNESS: Yes, sir.

A We gave Panda every opportunity to restate or provide any adjustment to their proposal that they wanted to in several back and forth discussion sessions.

BY MS. BROWNLESS:

Q That's not the question. The question is at the end of the contract term that Power Corp. selected, could Power Corp. have renegotiated with Panda the ability to pass on fuel savings?

MR. SASSO: Now, I have to object on grounds of relevance. The question concerns what might have happened at the expiration of the contract term in negotiating an entirely new contract. That's completely outside the scope of this proceeding.

COMMISSIONER JACOBS: Sustained.

BY MS. BROWNLESS:

Q The $360 million that you discussed with Mr. Sasso, has that analysis been provided previously?

A The sensitivity analysis, as I indicated that number, I don't know if it has, but I can find that out.

Q To the extent that it has not been provided, could we ask for that as a late-filed exhibit, please?

MR. SASSO: I don't believe anything in writing exists. This was something we discussed in response to Ms. Hart's cross examination yesterday.

COMMISSIONER JACOBS: Is it available in

writing?

MR. SASSO: I don't think there's anything in writing. This was just an approximation.

COMMISSIONER JACOBS: Is it a request for late-filed?

MS. BROWNLESS: Yes, please.

COMMISSIONER JACOBS: If it's available, let's do it as a late-filed and respond accordingly, if it's not available.

MS. BROWNLESS: And do we need a title for it, sir?

COMMISSIONER JACOBS: Yes.

MS. BROWNLESS: That would just be the analysis that supports the $360 million figure that you discussed in your testimony, Mr. Crisp.

THE WITNESS: Yes.

BY MS. BROWNLESS:

Q With regard to the savings associated with constructing Hines Unit 2 on Hines Unit 1 site, were proposals taken by Florida Power Corporation prior to the selection of the Hines Unit 1 site?

MR. SASSO: Objection on relevance grounds. I can't imagine what selection of the Hines 1 plant has anything to do with this.

MS. BROWNLESS: Well, it's quite relevant. One

of the basis for the reason that this is a more cost-effective alternative to Florida Power Corporation is the economies of scale that Commissioner Jaber discussed with Mr. Crisp, because Hines Unit 2 is located on the Hines Unit 1 site.

And, so, my question is we know that the Hines Unit 2 site has been subject to an RFP, subject to competitive influences. Was the selection of the Hines Unit 1 site also subject to those influences.

MR. SASSO: Same objection, Mr. Chairman.

COMMISSIONER JACOBS: I would sustain that. If you want to ask whether or not there were any continuing benefits of that, that's fine, in this docket, but going back to Hines 1, I would sustain that.

MS. BROWNLESS: Thank you very much. I'm done.

MR. SASSO: We would call our next witness at this time.

COMMISSIONER JACOBS: That's it? Okay, you're excused.

THE WITNESS: Thank you.

(Witness excused.)

MR. SASSO: Alan Taylor.

COMMISSIONER JACOBS: Ms. Brownless?

MS. BROWNLESS: Yes, sir.

COMMISSIONER JACOBS: We need to -- we'll

identify this item as Exhibit 12. I wasn't quite clear on the description of that late-filed.

MS. BROWNLESS: This would be the PWRR analysis supporting the comparison of Hines Unit 2 to the Panda bid alone, you know, on a stand-alone basis, one that doesn't take into account the entire FPC system.

COMMISSIONER JACOBS: Very well.

(Late-filed Exhibit 12 identified for the record.)

MR. SASSO: We're going to be passing out some confidential exhibits on this.

COMMISSIONER JACOBS: Very well.

MR. SASSO: The envelope contains just Mr. Taylor's confidential prefiled testimony.

COMMISSIONER JACOBS: So, we don't need to identify it, then.

MR. SASSO: Right.

ALAN S. TAYLOR

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

DIRECT EXAMINATION

BY MR. SASSO:

Q Could you state your name, position, and business address, please.

A My name is Alan Taylor. I'm the vice president with the global business sector of PHB Hagler Bailly, an international consulting company. My business address is 1881 Ninth Street, Suite 302, Boulder, Colorado 80302.

Q Mr. Taylor, did you prepare and file direct prefiled public testimony and confidential testimony in this proceeding?

A Yes, I did.

Q And did you also attach to your public testimony your CV as Exhibit 1?

A Yes, I did.

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

A Yes, I would.

Q Do you wish to make any changes or corrections to your prefiled testimony?

A No, I do not.

Q Do you adopt your prefiled testimony as your sworn testimony in this proceeding?

A Yes, I do.

MR. SASSO: Mr. Chairman, we request that Mr. Taylor's testimony be entered into the record as though read.

COMMISSIONER JACOBS: Very well. Without objection, show Mr. Taylor's testimony into the record as though read.

INTRODUCTION AND QUALIFICATIONS

Q. Please state your name and business address.

A. My name is Alan S. Taylor. My business address is PHB Hagler Bailly, Inc. (PHB Hagler Bailly), 1881 Ninth Street, Suite 302, Boulder, Colorado 80302. PHB Hagler Bailly has recently signed a definitive agreement to merge with PA Consulting, another global consulting company. The resulting company will be called PA Consulting.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Florida Power Corporation (FPC).

Q. Who is your employer and what position do you hold?

A. I am employed by PHB Hagler Bailly as a vice president in our Global Energy Business Sector.

Q. Are you sponsoring any exhibits?

A. Yes. My resume is included as Exhibit AST-1.

Q. Please summarize your background and experience.

A. I received a Bachelor of Science Degree in Energy Engineering from the Massachusetts Institute of Technology. I received a Masters in Business

Administration from the Haas School of Business at the University of California, Berkeley, where I specialized in Finance and graduated Valedictorian.

I began my career at Baltimore Gas & Electric Company, where I performed efficiency and environmental compliance testing on the utility system's power plants. I subsequently worked for five years as a senior consultant at Energy Management Associates (EMA, now New Energy Associates), training and assisting over two dozen utilities in their use of EMA's operational and strategic planning models, PROMOD III and PROSCREEN II. After that, I worked at Pacific Gas & Electric Company, where I analyzed the utility's proposed demand-side management incentive ratemaking mechanism.

Since joining PHB Hagler Bailly, I have spent the last eight years specializing in integrated resource planning, competitive bidding analysis, utility industry restructuring, market price forecasting, and asset valuation. I have testified before state commissions in proceedings involving resource solicitations, environmental surcharges, and fuel adjustment clauses.

My detailed resume is included as Exhibit AST-1.

Q. Please comment on any specific experience relating to review of utility power solicitations and evaluation of proposals.

A. I have helped develop utility resource requests for proposals (RFPs) in several solicitations over the last six years. In performing these projects, I reviewed dozens of other utility RFPs to understand the industry's standards and best practices in resource acquisition. I have evaluated proposals in numerous solicitations for projects in California, Texas, Florida, Colorado, Minnesota, and Iowa. In several of these solicitations, I assisted in or monitored negotiations with shortlisted bidders.

PURPOSE, SUMMARY, AND BACKGROUND OF TESTIMONY

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

A. FPC proposes to construct a new combined-cycle natural gas power plant (Hines 2) at the Hines Energy Complex in Polk County, adjacent to its existing Hines 1 unit. FPC arrived at this decision after a rigorous process in which FPC issued an RFP and evaluated in considerable detail the economic and other impacts of the proposed alternatives. PHB Hagler Bailly was retained at the start by FPC to provide outside guidance in developing the RFP and overseeing the evaluation of proposals and to provide an independent review of the process for its thoroughness, fairness and openness.

This testimony presents details of the process by which I (and others at PHB Hagler Bailly under my direct supervision) reviewed FPC's solicitation and evaluation process and FPC's decision to proceed with the development of Hines 2. The

testimony also provides the basis for my support of FPC's efforts and ultimate conclusions.

Q. Please briefly summarize your testimony.

A. My review concludes that FPC conducted a solicitation process that encouraged prospective bidders to offer proposals and that offered adequate opportunity to compete against the Hines 2 self-build option on both economic and non-price terms. FPC's proposal evaluation process was thorough and utilized appropriate modeling and analytical methods. The decision to formally pursue the Hines 2 option is firmly grounded in the economic evaluation of the alternatives as well as their non-price attributes.

Q. Please describe any materials you reviewed in preparation for this testimony.

A. I reviewed and helped develop the RFP document. I reviewed the two proposals submitted to FPC. I and/or my staff also carefully reviewed the output from FPC's modeling runs as well as the proforma spreadsheets that utilized the modeling results and other FPC system cost information to derive annual cost projections for each alternative. In addition, I reviewed FPC's findings regarding benefits and disadvantages of non-price factors for each proposed resource. For the purpose of gaining additional background on FPC's planning process, I also reviewed the most recent Ten-Year Site Plan, published in April 2000. For the purpose of understanding Florida's resource selection process requirements, I reviewed the Commission's need determination and bidding rules (25-22.081 and 25-22.082) and

the August 18, 1998 transcript of the Commission proceedings concerning a petition by Gulf Power Company for waiver of portions of those rules.

Q. Please describe any other steps taken to prepare for this testimony and/or FPC's solicitation.

A. Prior to bid opening, the PHB Hagler Bailly project team developed a "response surface" model that mimicked FPC's modeling analysis, thereby allowing for a comparison of the results and verification of the major cost trends found by FPC. A response surface model is a spreadsheet model that approximates the results that are likely to be yielded by a more detailed model. Our response surface model was developed from numerous runs of New Energy Associates' PROSCREEN/PROVIEW model, a utility system simulation model used by FPC in its planning processes. PROVIEW is an optimization module within the PROSCREEN tool set and is commonly used in the industry for generation planning and resource acquisition analysis. The response surface model allowed PHB Hagler Bailly to perform a separate, simplified, parallel analysis and to corroborate the pre- and post-bid-opening modeling results.

As a further check of FPC's analysis, we reviewed FPC's modeling results to verify that the bidders' proposals had been modeled appropriately and we confirmed the validity of the methodology used to compare bids against one another and against the Hines 2 alternative.

REVIEW OF RFP AND SOLICITATION PROCESS

Q. Please describe the regulatory and planning objectives of the RFP process.

A. The RFP process is intended to ensure that FPC pursue the resource options that serve the best interests of its ratepayers. By soliciting proposals from bidders, FPC creates a market test against which it must compete and win in order to proceed with its planned resource development. The utility's long-term planning process is enhanced by making available supply-side alternatives that may offer lower costs, resource diversification, or other benefits that FPC cannot achieve on its own.

Q. Please describe the RFP document itself.

A. The RFP consists of 33 pages including data tables, forms, and other attachments. The first page clearly states FPC's purpose to solicit competitive proposals for supply-side alternatives to its next planned generating unit, identified as a natural gas-fired combined-cycle unit of approximately 530 MW to be located at the existing Hines Energy Complex in Polk County, Florida. A more detailed description of this planned unit was provided in Attachment D.

Among its salient requirements, the RFP states that capacity must be available no later than November 30, 2003 and be dedicated solely to FPC's use. The RFP describes other specifications for proposal submissions and provides a tentative timeline for bidder requirements, meetings, due dates, and the solicitation review process. The RFP also describes the proposal evaluation process.

Attachments to the RFP include (A) Notice of Intent to Bid Form, (B) Proposal Summary Form, (C) Instructions for proposal format, including blank data tables, (D) Data for the Planned Unit at the Hines Energy Complex, and (E) FPC Generation Interconnection Study Data Request Form.

Q. Did the RFP meet the regulatory and planning objectives described above, and did it fulfill the objectives of the Florida Public Service Commission policies?

A. Yes, I believe that the RFP met these objectives. It served to attract competitive bids that offered FPC options with respect to bottom-line cost, pricing structure, capacity, contract duration, resource type, and other factors. I believe that the RFP fulfilled the objectives of the Florida Public Service Commission (FPSC) policies. It clearly included information on FPC's planned resource addition so that bidders knew the approximate economics of the resource against which they would have to compete.

Q. Was the RFP document suitable for encouraging competitive bids and facilitating submission of the bids in a complete and timely manner?

A. Yes. The RFP was well crafted and was suitable for encouraging and facilitating submission of competitive bids. The RFP was clear in its purpose and specific in its requirements. In addition, it provided prospective bidders with key financial and operating data for FPC's next planned unit.

Q. Was the solicitation process itself conducted in a manner that encouraged and facilitated submission of competitive proposals?

A. Yes. The RFP was issued to approximately 50 potential bidders and was posted on FPC's web site on January 26, 2000. In addition, FPC issued a press release and there were stories on the solicitation in major industry trade publications such as Financial Times Energy's Megawatt Daily (on January 26, 2000) and McGraw-Hill Company's Global Power Report (on February 4, 2000). Prospective bidders were asked — but not required — to submit a Notice of Intent to Bid by February 10, using the form provided in Attachment A of the RFP; thirteen respondents submitted Notices. Bidders were also encouraged to attend the optional pre-bid meeting held February 18 in Tampa. At the meeting, which was attended by several FPC staff, a member of the PSC, and 12 prospective bidders, FPC staff reviewed the purpose and requirements of the RFP and answered questions.

Q. Please describe the proposals that were ultimately submitted in response to the RFP.

A. The details of the proposals that were submitted are described in my confidential supplemental testimony that is being filed under seal in this proceeding.

Q. What steps were taken subsequent to receipt of the proposals to ensure fair consideration of the bids?

A. Once FPC had reviewed the bids, FPC contacted each bidder with written requests for clarifications. Also, FPC staff held one-on-one meetings with the bidders in

order to fully understand the proposals and to offer the bidders opportunities to clarify and/or revise the proposals and certain important particulars to better address FPC's needs and the requirements of the RFP.

PROPOSAL EVALUATION PROCESS

Q. Please describe the methodology by which FPC evaluated the submitted proposals.

A. FPC conducted a resource optimization analysis using PROVIEW. This analysis allowed FPC to determine the system costs for various resources or combination of resources over the study period, which extended from 2003 through 2028. Through this optimization process, FPC was able to determine the long-range plan for additional generic resources that would yield the lowest system costs for each proposed resource (and each variant of the proposed resources) offered in the current solicitation.

The proposed Hines 2 unit was revealed to be the least cost alternative from the PROVIEW analysis. However, instead of ending its analysis, FPC utilized the PROVIEW results only to narrow the field of contending proposals or variants of proposals. In order to provide added validity to the analysis, a more detailed utility-system simulation model, known as PROSYM, was then utilized to evaluate the remaining proposal variants. The PROSYM runs determined total system costs under four unique scenarios.

In all four scenarios, each proposal or proposal variant was evaluated in the best light in that the optimal long-term generation expansion plan that was developed in the PROVIEW evaluation of that proposal was incorporated into the PROSYM run.

Q. Please describe the PROSYM modeling process and how it was used to evaluate the proposals.

A. Unlike PROVIEW (which uses approximation techniques to simulate monthly utility dispatch results), PROSYM is an hourly production cost model. PROSYM utilizes detailed data on operating characteristics and costs for all power plants in a utility system. Subject to unit operating constraints, it dispatches these units on an hour-by-hour basis, beginning with those resources having the lowest variable costs, until the system demand is met for that hour. Through this simulation, PROSYM is able to determine at what capacity a unit is utilized, for what period of time, and at what cost (i.e., how it would likely be dispatched along with other system resources).

In FPC's analysis, separate model runs were conducted for the years 2000 through 2010 utilizing each of the four resource options carried into the PROSYM phase. The output of these runs were four 11-year series of unique system-cost figures, which correspond to the mutually exclusive deployment of the four resource options and which represent FPC's annual variable costs of generating the required amount of electricity.

These results were then incorporated into a proforma spreadsheet analysis that determined the anticipated total costs for each resource scenario for each year through 2028.

Q. Please describe the proforma analysis and how it was utilized.

A. The variable system costs generated by PROSYM are only a part of the total cost picture. In FPC's proforma analysis, the utility incorporated the PROSYM variable costs into a framework for evaluating the total revenue requirements of each scenario. In the proforma spreadsheets, FPC took the annual system cost data for each resource scenario and added to it the following items:

(1) Power purchase agreement capacity payments made by FPC to the bidder;

(2) Non-fuel revenue requirements, including capital expenditures, fixed operating costs, maintenance expenditures, etc. for the Hines 2 unit (applies to the Hines 2 scenario only); plus additional non-fuel revenue requirements for future resources needed to maintain adequate supply for the system (applies to all scenarios);

(3) Added revenue requirements attributable to the increase in FPC's future cost of capital that results from the imputed debt FPC assumes by entering into a long-term purchase power agreement;

(4) Capacity credit for the market value of any capacity in excess of FPC's 20% reserve margin criterion.

For each resource scenario, these costs and credits were added to the variable system costs from PROSYM to yield total annual revenue requirements for each year through 2028. For purposes of comparison, the present value of these streams of revenue requirements was calculated using a discount rate of 8.62%, equal to FPC's after-tax weighted average costs of capital.

Q. Were there any other significant factors that entered into the analysis?

A. Yes. In order to test for the impact of plausible changes in the price and availability of natural gas, FPC conducted three sensitivity analyses on each of the four resource scenarios previously described. These sensitivities included a high-fuel case, a low-fuel case, and a case referred to as "Gulfstream" that represented a scenario in which the proposed Gulfstream gas pipeline is developed.

Q. What were the results of the modeling and proforma analysis?

A. The analysis showed that under the base case Hines 2 was the lowest-cost alternative from 2003, the first year the units would come on line, continuously through to the end of the planning period in 2028. Relative to Hines 2, the other proposals were more expensive by at least $66 million in present value terms over the study period.

Results from the sensitivity analyses were similar, with Hines 2 clearly the least-cost option. The difference in the present value of total costs between the other proposals and Hines 2 was at least $69 million in present value terms.

Q. Was the modeling and proforma analysis conducted appropriately and in a manner that legitimately determined the least-cost resource option?

A. Yes, it was. The methodology employed by FPC to quantify the financial impact of the various resource alternatives captured and correctly modeled the essential factors needed to determine the system-wide cost under each scenario. Further, PHB Hagler Bailly has verified that FPC accurately incorporated into its models the key cost and operating characteristics from the proposals and that the characteristics for Hines 2 were both reasonable and consistent with what was contained in Appendix D of the RFP. PHB Hagler Bailly also verified that the proforma accurately and appropriately utilized cost information from the PROSYM model output.

Q. Were non-price factors considered in FPC's evaluation of the resource alternatives?

A. Yes. In addition to the economic analysis, FPC also conducted a parallel evaluation of non-price attributes of the proposals, including air quality, system resource diversification, start date and duration, and regulatory issues. The findings from this analysis illuminated various benefits and disadvantages of both bidders' proposals relative to Hines 2. These non-price attributes were viewed in conjunction with the quantitative assessment in making a final determination of the preferred resource option. I believe that the weight of these non-price factors further tilted the balance against the proposals, and thus supported development of Hines 2.

DECISION/CONCLUSIONS

Q. What decision did FPC make as a result of this analysis?

A. FPC has decided to proceed with its plan to construct the Hines 2 unit.

Q. In your view, is this decision supported by the modeling and proforma analysis?

A. Yes, it is.

Q. In your view, do FPC's efforts in the solicitation and subsequent modeling and analysis form an adequate basis upon which to make a decision on the next supply-side resource for the FPC system?

A. Yes, they do. FPC made all reasonable efforts to work with the bidders to modify, where necessary, the proposals to better meet FPC's needs. In order to give bidders every benefit, several proposal variations for each bidder were then included in the initial screening, and at least one variation for each bidder was carried into the final detailed analysis. Further, the sensitivity cases that were evaluated appropriately capture the range of gas prices and supply contingencies that FPC could reasonably expect to experience.

FPC's method of comparing the proposals is sound and appropriately captures the present value of the future cost streams resulting from adoption of the competing proposals.

Q. What do you see as some of the benefits of the Hines 2 project?

A. By proceeding with development of Hines 2, FPC will be able to take advantage of an option to purchase the needed turbines at a price negotiated several years ago that is significantly less than what it would cost FPC in today's market. In part, as a result of this option, the costs associated with Hines 2 are less than those that other bidders are able to offer.

Hines 2 would also be located at an existing power production site — on the same site as the currently operating Hines 1 unit. Therefore, no rezoning or conversion of open space would be needed and the impact of construction and traffic would be relatively minor. Additionally, as opposed to one of the proposals, Hines 2 would be available in time for the 2003/2004 winter peak period, which is when FPC currently forecasts the need for additional capacity. Also, since much of FPC's existing resources are coal or coal-based purchase power contracts, the natural gas-fired Hines 2 unit would represent a diversification of the system-wide resource mix.

Q. What are your overall conclusions regarding FPC's solicitation process and evaluation of proposals?

A. I believe that FPC conducted a fair solicitation that was clear in its objectives and that encouraged proposals from prospective bidders. FPC also conducted a valid analysis of the submitted bids at an appropriate level of detail, both quantitatively and qualitatively. I concur with FPC's conclusion that development of Hines 2

would yield the lowest cost among the available alternatives and that it would best serve the interests of FPC's ratepayers and the public.

Q. Does this complete your direct testimony?

A. Yes, it does.

MR. SASSO: And I would also ask that Mr. Taylor's CV, which is attached as an exhibit to his prefiled public testimony, be marked as Exhibit 13.

COMMISSIONER JACOBS: Very well. Show it marked.

(Exhibit 13 marked for identification.)

BY MR. SASSO:

Q Have you prepared a summary of your testimony?

A Yes, I have.

Q Would you provide it to the Commissioners, please?

A Certainly.

I'd like to cover a little bit of my background resource solicitation because, I think, one of the benefits that I'm bringing to this proceeding is knowledge of similar solicitations that have been happening around the country, and I'd like to turn, basically, to the task at hand and the role that I, myself, and Hagler Bailly, in general, played in this process.

I've been involved with integrated resource planning activities as a consultant since 1983. I spent the last nine years with Hagler Bailly specializing, principally, in resource acquisition, competitive bidding solicitations, and market analysis.

I've conducted or assisted and/or monitored

numerous solicitations across the country from California to Florida here, not just this solicitation, but others and from Texas to Minnesota. So, I think, I've got a breadth of experience, as far as understanding what generally goes into these solicitations and the RFPs and how the evaluations are generally performed.

As far as my role in this proceeding, PHB was retained to provide guidance in the development of the RFP, to oversee the evaluation, and to perform an independent review of the responses to the RFP.

We were tasked to ensure that the process was thorough and fair and valid. And, certainly, I have concluded that the overall process was fair, and all the analytic methods and the analytic tools that were employed in the process were appropriate and that the evaluation was done thoroughly. I also concur with FPC's decision to move ahead with the selection of Hines 2. I do agree that that's the superior proposal out of this process.

Turning to some of the details, as far as the RFP itself, I think, that the RFP was well-crafted. It struck an appropriate balance in the industry. Sometimes I've seen RFPs that are as short as two pages, and other times I've seen RFPs that are as thick as a few inches.

I think, that the amount of specificity in the RFP was appropriate and that it gave bidders plenty of

details without burdening them too much because, frankly, I think that in some solicitations with these very large RFPs, that can serve as an indication that this is going to be a tough hurdle to get over.

So, I think, that the RFP established that appropriate balance. I think, it was consistent with what's also been followed here in the state of Florida and other solicitations. The RFP, I think, encouraged participation. It was disseminated, as was testified yesterday, to over 50 parties, as well as being advertised in the trade press.

There was a pre-bid conference that offered parties an opportunity to ask any questions or details about the RFP or the evaluation process. And then, ultimately, once the proposals were received, Hagler Bailly also participated in the bid opening process and participated in the one-on-one meetings with the respondents to the RFP.

I think, that the analysis that was performed on the two proposals that were received was very thorough and appropriate. And the conclusion that the next best alternative to Hines 2 was at least $66 million more was a correct conclusion.

We also examined the sensitivities and concur with the conclusions there, that even under various

scenarios, Hines 2 is still the superior proposal. I think that that's founded in a lot of details that have already come out in the case, as far as the advantageous turbine contract, the fact that the facility is being built on an existing plant site which, as Mr. Crisp testified, has various economies associated with it, the fact that the resource is going to be available in 2003 during a critical need and the fuel diversity that lends to the Florida Power system.

So just to wrap, quickly, with the summarization here, I think, that the solicitation was fair and that the RFP was clear and encouraged participation. I think, that the analysis was valid, and I concur that Hines 2 is the cost-effective resource that should be pursued.

MR. SASSO: Mr. Chairman, we tender Mr. Taylor for cross examination.

COMMISSIONER JACOBS: Ms. Brownless.

MS. BROWNLESS: Thank you.

CROSS EXAMINATION

BY MS. BROWNLESS:

Q Good morning, Mr. Taylor.

A Good morning, Ms. Brownless.

Q I'd like to turn to Page 7 of your nonconfidential testimony, please.

MS. BROWNLESS: Gary, the confidential testimony

has the same pagination as the nonconfidential, doesn't it?

MR. SASSO: You mean, it starts with one and two, three, four?

MS. BROWNLESS: No, no. I mean, that they correlate, because you just redacted -- you just crossed out words.

MR. SASSO: You're talking about redacted versus --

MS. BROWNLESS: Well, here's all I'm trying to get at. If the Commissioners look at their copy of Mr. Taylor's confidential testimony, could they refer to Page 7, just as they could refer to Page 7 in the nonconfidential?

MR. SASSO: I expect so.

THE WITNESS: I don't see a Page 7 in my confidential testimony. There's a public version, and then there's an entirely separate confidential version.

MS. BROWNLESS: Okay. So, the pages don't match. That's all I'm getting at.

THE WITNESS: Okay.

MS. BROWNLESS: That's fine. We'll just stick with the nonconfidential.

BY MS. BROWNLESS:

Q With regard to the number of bidders who

actually attended the pre-bid conference, I believe, you testified that --

COMMISSIONER JABER: Excuse me. I'm sorry. I just need to make sure I understand the testimony. The confidential testimony is titled, "Supplemental Testimony." So, help me understand the difference so I can follow.

MR. SASSO: Yes. We're confused over here, too, by what Ms. Brownless has asked. It's a stand-alone set of testimony. It's not the same material as in the public testimony.

MS. BROWNLESS: Sorry.

MR. SASSO: It has different content, and it's paginated from one, two, three, and so on.

MS. BROWNLESS: I'm sorry, I didn't -- thank you -- get that. Thank you.

BY MS. BROWNLESS:

Q With regard to the number of bidders who attended the pre-bid conference, I believe, you testified that was 12 bidders -- I mean, folks?

A That's correct.

Q And that was 12 people who actually attended the pre-bid conference out of approximately, do you know for sure 50 people Power Corp. invited?

A Yes.

Q I assume that because they advertised in trade journals, it's safe to say more than 50 people were aware of the bid?

A Yes.

Q From your knowledge of the industry, about how many entities would have been potential bidders?

A It's hard to say. It's a very dynamic marketplace, and people have a lot of irons in various fires. There's a great deal of activity around the country. So, in any one solicitation, it's difficult to predict.

Q Okay. Well, let me ask the question this way. Are you familiar with McGraw Hill, an independent power producer directory?

A Yes, I am.

Q Okay. How many folks are listed in that directory?

A Um --

Q Approximately.

A I don't know a number off the top of my head, quite a few.

Q Okay. More than 100?

A I would guess, yes, subject to check.

Q Okay. Of the 12 folks who came to the pre-bid conference, only two submitted a bid?

A Yes.

Q Was the pre-bid conference a mandatory conference?

A No, it was not.

Q So, you didn't have to go to the conference in order to subsequently bid?

A That's correct.

Q Obviously, two folks out of 50 folks, the known pool of bidders, is a 4% return; is that right?

A If you use that as the denominator, yes.

Q Okay. And two out of 12 is a 16% response rate?

A Yes.

Q Two out of a potential pool of 100 is, obviously, a lot less than that.

A I think, your arithmetic is correct, yes.

Q Do you consider this to be a low number of responses for this type of RFP, based on your experience?

A Based on my experience, I'd say it was a little bit on the low side, although I've seen a number of solicitations similar to this where there had only been two or three main bidders to compete with the resource.

Q Okay. I'm going to turn to Page 8 of your nonconfidential testimony. And on Line 9, you indicate -- reiterate that FPC conducted an optimization analysis using PROVIEW; is that correct?

A That is correct.

Q Is PROVIEW a proprietary program?

A Yes, it is.

Q By proprietary, I mean, that one has to pay to have access to it?

A Yes, it's a model of New Energy Associates in Atlanta.

Q We used to call that EMA, didn't we?

A Yes, where I worked for five years.

Q Ya'll should keep the same name all the time. That would be easier for us to track along with.

A I'll simply add that I'm very familiar with the program.

Q Sure.

Are you currently licensed for the PROVIEW computer model?

A PHB Hagler Bailly is not. When we help clients with various solicitations, we are usually simply using or reviewing their program runs from their license agreement.

Q Okay. Because you do not have access to this computer model, you could not replicate the PROVIEW runs that Power Corp. conducted, correct?

A Correct. And that was the main genesis for determining and developing the response surface model prior to opening of the bids.

Q To the extent -- well, let me ask this question: Is every computer model dependent upon the input data that is placed in it?

A Yes.

Q So, to the extent that that data is incorrect or erroneously entered, can results be erroneous?

A Yes, that's true.

COMMISSIONER JABER: Would you know if any of the data was erroneously entered in your review of the runs?

THE WITNESS: We would know, certainly, if anything had been changed after the opening of the bids, because we did develop this parallel evaluation process, this response surface model, just to corroborate that whatever results were coming out of the evaluation were consistent with what sort of information was in the system.

We checked to make sure that all the numbers were reasonable, but I cannot testify to the voracity of load forecasts or other things that were really the domain or jurisdiction of various entities and departments at Florida Power Corp.

BY MS. BROWNLESS:

Q The PROSCREEN, PROSYM model, do you have access to that?

A We do have a license for PROSYM in our Boulder shop, yes.

Q Okay. Did you perform PROSYM sensitivity modeling that replicated that performed by Florida Power Corporation?

A I should add that although we have it in our offices, use of that is limited to various projects. And to the extent that we use it on another project, we do need to pay the vendor of that, Henwood Associates, a licensed fee.

So, this is not something where we would have embarked on that task without incurring these additional costs to pass on to Florida Power. And we did not believe it was necessary to actually do runs in our office to verify the voracity of the PROSYM runs.

Q So, you did not conduct PROSYM runs that, essentially, attempted to replicate what Power Corp. had done?

A That is true, we did not.

Q The PROSYM runs were done for a period of 10 years; is that correct?

A Yes.

Q Why was that limited to 10 years and not spread out over the entire 25 years?

A PROSYM is a very detailed production cost model.

It takes, potentially, hours to execute just individual years of runs, depending on the size of the system one is trying to model. So, it becomes very time consuming to generate results out through an entire 25-year time frame.

I also believe, subject to check, that Florida Power Corp. has its 10-year site plan information loaded into the PROVIEW system. And to extend the databases beyond that time frame, 2010, is a nontrivial matter.

It's rather data intensive. And I believe that the information simply was not in hand to run, physically, the model out through that time frame. However, the results, the production cost results, were extended from 2010 in the revenue requirement process using the escalation features that were seen in the 25-year runs developed in PROSCREEN.

Q Okay. So, if I understand what you've just told me, they took the results at the end of 10 years, and then applied escalation factors to fill in the back 15.

A That's correct.

Q So, the years, the PROSYM runs from the 11th year through the 25th year are approximations of what the model would have produced?

A That's correct.

Q I'm curious, in all the exhibits produced by Power Corp., why they start in the year 2000 and don't

start in the year 2003, do you know, the PWRR analysis that we discussed yesterday?

A They very well could have started in 2003, since that's the time frame where different potential resources can be adopted. I think, that a benefit of starting an earlier year, the current year, is it allows people to kind of get their basis on what sort of information is being provided and does allow one to then corroborate that the numbers are the same between the cases for the first year or so.

Q The fact that this analysis, these PWRR analysis that have been provided and have been marked as Exhibit Number 7, and we've been talking about them as Interrogatory Number 19 and Interrogatory Number 20, the data here indicates -- is exactly the same in both the Panda case and the Hines Unit 2 case for each year prior to 2003, and you would expect that based upon your explanation, correct?

A Correct.

Q The PWRR analysis performed by Power Corp., inherent in that analysis is a particular type of cost recovery for each unit, correct?

A As far as cost recovery, there is, yes, a predication as far as the cost passed through.

Q In other words, that, in fact, it would be the

Hines Unit 2 plant would be able to be traditionally rate-based recovered over that entire period of time?

A That's correct.

Q And with regard to the Panda proposal, it would assume that the costs associated with the Panda project would be recovered from ratepayers, in this instance, through our capacity, what do we call it now, we call it capacity factor. We used to call it cogeneration capacity factor. We don't call it that anymore; the capacity factor, section of the fuel adjustment charge as well as the fuel O&M factors?

A I'm not familiar with the ratemaking and rate recovery issues of Florida Power. I've been led to believe, from various discussions, that yes, these costs, purchase power costs, would be passed through.

Q And they would be completely passed through, through whatever mechanism.

A That's correct, the ratepayers would pay for them in the year that they were incurred.

Q I'm looking now at Page 10 of your testimony. And on Line 17, you indicate here -- it's indicated here that imputed debt was added to these scenarios for each bidder's project; is that correct?

A Each bidder's what?

Q Project, each bidder's bid for Bidder A and

Bidder B?

A Yes, they were.

Q So, there would be some component of that analysis that would be related to imputed debt.

A Right.

Q Now, you say on Line 20 that a capacity credit for market value of any capacity in excess of FPC's 20% reserve margin criterion was credited to each bidder; is that correct?

A That's correct.

Q Okay. Was it also credited to the base unit?

A To the base unit?

Q Okay. Here's what I'm trying to ask. There has been testimony that there is, approximately, 400 megawatts of capacity associated with the Hines Unit 2 unit in the first year in which it comes on-line. That is not necessary to meet Power Corp.'s 20% reserve margin.

Given that, in the analysis here, was Florida Power Corporation, the revenues that could be derived from selling that 400 megawatts of capacity not needed to meet the reserve margin, were dollar figures -- was Power Corp. given any credit for the ability to sell that in the wholesale market?

MR. SASSO: I want to object to Ms. Brownless's characterization of the prior testimony. It is what it

is. And I don't believe she's appropriately characterized it.

COMMISSIONER JACOBS: Ms. Brownless.

MS. BROWNLESS: Well, I do believe that Mr. Crisp indicated that there was a certain number of megawatts in the year 2003, 2004, which is when the unit comes on-line that are not necessary to meet the 20% reserve margin that Power Corp. is aiming for.

MR. SASSO: I think, that's a very misleading characterization. Mr. Crisp was quite adamant that the company needs all of the capacity of Hines 2 to apply toward the company's reserve margins. The 20% planning criterion is a minimum. And I'm afraid that Ms. Brownless's characterization is misleading. And I don't see any need to characterize the testimony. It is what it is.

MS. BROWNLESS: Let me just ask this. I can cut right to the chase here.

COMMISSIONER JACOBS: Okay.

BY MS. BROWNLESS:

Q A capacity credit for the market value of any capacity in excess of FPC's 20% reserve margin criterion, credit was given to the Panda project for that?

A Yes, it was given for every year for every portfolio, whether Panda or --

Q Was it given to Power Corp. for that?

A Yes, it was.

Q Based upon the PROSYM sensitivities run by Power Corp., what was the ranking of the alternatives between the three options, Power Corp., Bidder A and Bidder B?

A It was Power Corp., Bidder A, and Bidder B in that order.

Q And Bidder B would be Panda; is that correct?

A No.

Q I'm sorry, Bidder A would be Panda.

A Yes, Bidder A was Panda.

Q So, it goes FPC, Panda, Bidder B.

A Correct.

Q We discussed, in some detail, yesterday a spreadsheet prepared by Florida Power Corporation concerning the nonprice alternatives or attributes of Panda's project. Were you here for that discussion?

A For most of it, yes.

Q I can't find my sheet. I'm sorry, let me find my exhibit. Well, let me just ask this very simple question: Did you have any personal knowledge, for example, of Panda's litigation history?

A No personal knowledge, only what I heard from Florida Power.

Q Did you make any separate inquiry of other

sources or try to verify whether Power Corp.'s conclusions about Panda's litigation history were, in fact, correct?

A I did not contact either of the bidders directly.

Q Okay.

A No.

Q Well, did you contact analysts on Wall Street or other sources routinely used to verify that type of information?

A I don't know that analysts on Wall Street would necessarily know the full litigation history of a company.

Q Well, anyone whom one would normally talk to about that type of information. Did you talk to anybody?

A I'm not sure where one would go besides the company itself.

Q Okay. So, that's a no, right?

A That is correct.

Q With regard to the regulatory climate in Florida and the ability of Panda to actually construct this project or not construct this project, did you call Panda and ask them about that?

A As I say, I did not contact either of the bidders directly. I did not think that that was appropriate.

Q Okay. And so, you didn't attempt to talk to

Panda or verify any of the statements made on the sheet?

A I participated in the one-on-one discussion with Sam Doaks. So, I was involved in these discussions. And that afforded me the opportunity to hear Mr. Doaks, explain the proposal, present any additional information he wanted to, and react to the concerns that were being expressed by Florida Power. And I considered that to be a very good forum for any sort of additional interchange of information to occur.

Q At those meetings, did you have any ability to ask questions yourself?

A Excuse me?

Q In those meetings in which you participated with personnel from FPC and Mr. Doaks from Panda, were you able to ask questions, as well as Power Corp.?

A Yes, I was able to.

Q And did you?

A These meetings were back in mid April. I don't recall what questions I may have asked.

Q Okay. So, you don't remember now whether you did or did not?

A I primarily was listening, but I may have asked a question or two.

Q Okay. I want to ask a few questions about your response surface model. And this is the model, as I

understand it, that you developed in order to review the data presented by Power Corp.; is that correct?

A Yes, corroborate the evaluation results.

Q Okay. And this response surface model, is that a proprietary model that's available to anybody that can give you a license fee for same?

A It's not a formalized model in the sense of being a commercially available software product. We, as a corporation, develop these response surface models for various clients using proprietary information from them about their power system costs.

So, this is confidential information in that I would not turn around and sell Florida Power Corp.'s response surface model to anybody else. It is confidential information and material, protected under our agreement with them.

Q Would it be fair to say that the response surface model is a spreadsheet?

A Yes.

Q And the parameters on that spreadsheet, what are the parameters that one would place there?

A The response surface model itself looks at the variable costs of a resource and how they might be dispatched and affect the total production cost of a particular utility, Florida Power Corp., in this case.

So, the parameters that go into the response surface model are those associated with a particular resource. And they would be the size of the resource, the fuel price associated with that resource, the heat rate, and the variable O&M charge.

Q And this data would have been separately corroborated by you or provided to you by Florida Power Corp.?

A This was information that was corroborated by me and my staff and extracted directly from the proposals or from Attachment C -- Attachment D, excuse me, to the RFP in the case of the Hines 2 information.

Q Okay. So, you made sure that the data Power Corp. gave you about Panda's bid was accurate?

A I was actually there at the bid opening and retrieved one of the copies of the Panda proposal, as well as that of Bidder B and, therefore, left the premesis with my own copies, yes.

Q Okay. Did you make any independent analysis of, for example, the heat rate that was modeled by Power Corp. in their model for their own unit as to whether that was an appropriate heat rate or reasonable heat rate or --

A No, that was a given from Attachment D.

Q Okay. So, all of the materials -- all of the information contained in Attachment D formed the basis for

your comparisons on this pro forma spreadsheet?

A That is correct.

Q And you didn't attempt to make any independent corroboration of the numbers therein. That's what they gave you, and that's what you took.

A Exactly.

Q Now, I'm assuming that you did exactly the same thing for Bidder B as you did for Panda?

A That is correct.

Q And when I say exactly the same thing, I mean, followed the same process?

A Yes.

MS. BROWNLESS: Thank you.

COMMISSIONER JACOBS: Staff?

MS. HART: Mr. Chairman, Staff has no questions for this witness.

COMMISSIONER JACOBS: Commissioners?

COMMISSIONER JABER: Mr. Taylor, help me understand what happens in other states. I read in your testimony that you've participated or at least evaluated proposals in California, Texas, Colorado, Minnesota and Iowa. Are the bidding rules or statutes in those states similar to what Florida's process is?

THE WITNESS: For the most part, yes.

COMMISSIONER JABER: What are some of the

differences?

THE WITNESSES: I would say one difference, Florida is very explicit in its rules about the need to include the self-build options information right in the RFP, and that is a source of some debate. In fact, at the beginning of the project, I brought that up saying is that really something that you want to do? You've got a very competitive unit and that could actually scare away participation.

And it was pointed out to me very quickly that these are the Florida rules, and I was provided the transcript of the Commission proceeding on the Gulf Power waiver back in 1998, and it gave me some very good background, as far as some of the Commission's reasoning on that.

And I, frankly, think that that is actually appropriate, because it can be somewhat disingenuous to not put the information out there and have bidders come in with no idea of what the bogey is, what the target is that they need to at least attempt to beat. So, I concur with that process, but I think that there are trade-offs there.

I have seen other solicitations, one in Texas that I was involved with that also involved a requirement to present the information of the self-build unit. And that also yielded a very low response rate, because the

resource was very cost competitive.

COMMISSIONER JABER: You were hired by Florida Power Corp. early on in the process, because they wanted your help in crafting the RFP, right?

THE WITNESS: That is correct.

COMMISSIONER JABER: All right. You're hired to give an independent judgment on each bid, correct?

THE WITNESS: Yes.

COMMISSIONER JABER: Explain to me, give me an understanding of the nature of the communications between you and, in this case, the client, Florida Power Corp., to the degree you can. I'm trying to understand, and I mean, no disrespect by it, I just want to understand the process. I'm trying to understand how independent your opinion can be. And keep in mind, these are issues related to Issue 5. We have to determine whether the bid process is fair.

THE WITNESS: Right.

COMMISSIONER JABER: So, I want to understand what the nature of your communications are with Florida Power Corp. and at what stage do you have those conversations.

THE WITNESS: I first met with Florida Power last fall at the start of this process and reviewed their RFP, contributed various language to the RFP. Most of

that process, then, was done back and forth by phone calls and e-mails, as far as conferring on this, although we did have an on-site meeting at the beginning of the process and, I believe, perhaps once before the RFP was actually issued.

There was the trip to Florida involving the bid opening, there was the trip involving the bid conference. And I was kept apprised of any discussions or e-mails, copied on e-mails of conversations or discussions or documented interchange with anybody in the bidding community during this period where the RFP had been issued, and bidders were asking questions.

As I say, I was there at the bid conference and was able to participate in that and see if the bidders had any particular concerns with the evaluation process that was being explored. I was there at the bid opening.

My staff was in contact with various individuals at Florida Power Corp., as far as monitoring their evaluation of the resources, as well as conducting, as I say, our own evaluation with the response surface model. And then there was, basically, a set of phone calls and, ultimately, a meeting to discuss the final results and the direction that Florida Power Corp. saw things and where Hagler Bailly saw them. And, indeed, we concurred with their decision and moved ahead with Hines 2.

COMMISSIONER JABER: If there was a situation, and I don't know, there might have been, at any point in your review of the bids where you disagreed with Florida Power Corporation's evaluation of any bid, who would -- you know, who would take the lead? Whose vote would have to take priority, yours or Florida Power Corporation?

THE WITNESS: Well, certainly, I sponsor my own testimony. So, this would be my independent opinion. And to the extent that there were disagreements, I would have brought them to the Commission's attention in my testimony.

There were various elements of the analysis, very small things were very below O&M charges were either escalating or not escalating appropriately that my staff pointed out and there was, basically, a discussion then, usually among my staff and the individuals at Florida Power Corp. who were working with the spreadsheets ultimately and the modeling results and getting things straightened out.

So, we never hit a point where there was a disagreement where they were advocating going in this direction on an issue and Hagler Bailly was advocating going in that. It was a matter of interpreting the bid results, making sure that the correct numbers got on the model. So, there were various aspects where some small

issues, very minor things, were addressed, but those got worked out, as far as each party understanding, then, exactly what had changed.

COMMISSIONER JABER: If I were to ask you the question in Issue 5, has Florida Power Corporation met the requirements of our own bidding rule by conducting a fair bid process, how would you answer that for me?

THE WITNESS: I would answer it yes, they have.

COMMISSIONER JABER: And did you give me your testimony on whether you believe you fairly evaluated the three bids?

THE WITNESS: Yes, I believe that Hagler Bailly fairly evaluated the three bids.

COMMISSIONER JACOBS: Mr. Taylor, are you aware that in order to carry out the analysis for Panda's proposal beyond the five years that we're certain their original filing was extrapolated out in order to do an analysis over the whole term that was expected --

THE WITNESS: Yes.

COMMISSIONER JACOBS: -- did you have any input or did you review those extrapolations to determine whether or not they met the reasonable standards?

THE WITNESS: Yes. I and my staff reviewed those extrapolations, and I also concurred with the overall methodology and philosophy behind that.

Typically, throughout the country, utilities will examine their resource alternatives and model the entire planning period, particularly for any situation where resources expand the entire period.

And in the shorter-term resources there will be some sort of fill-in, if you will; be it, other utility self-build options that may be build out at the end of that short-term resource time frame, as was the case here, or some sort of market proxy, as far as what might be available to the utility in the time frame that the short-term resource expires.

COMMISSIONER JACOBS: And finally, it is of some concern to me that we have a bidding rule, but what I hear you saying and what the record in this case seems to reflect is that it doesn't attract -- well, let me put it this way. It can have the impact of not attracting a robust community of bidders.

And in your position as an independent evaluator of that process, I would kind of want to piggyback on the question that Commissioner Jaber asked you. What would -- an innovative provider, what would be a factor that this process could embrace that would be more conducive to innovative producers bidding on projects such as this?

And I understand that there was some particular issues in this -- facts in this particular issue, but

setting those aside, here is a prime project, substantial load, in a very dynamic market. It strikes me as odd that only two companies, particularly, when I've heard all of the information in other proceedings we've had about how attractive this market is and how much load we can expect to have in the next two or three years, it strikes me as particularly odd that we find ourselves in a proceeding when that could have been demonstrated and wasn't.

THE WITNESS: Your Honor, let me comment on that last point first and then get back to the question of how the process might be changed because, frankly, I don't know that it can, but on the second point, though, I agree with you. I think that this is a dynamic market with a great deal of load growth.

I think, that what we're seeing -- around the country, I've certainly seen in solicitations over the last 12 to 24 months as a dramatic run-up in the costs of these new resources, largely because the turbine market is very, very tight. And bidders who are interested in bidding projects are using their scarce turbine resources in placing them in the places where they think they can make the most money. So, where market prices have been running up in some of the deregulative markets, California and New York and so forth --

COMMISSIONER JACOBS: I see.

THE WITNESS: -- they're placing their turbines there. So, to some extent, I think that what you have here is Florida Power had a very cost-effective resource that was being put forward. And a lot of the IPPs simply said I'd rather go bid in some markets where I think that the immediate competition is going to be the IPP next to me, and they're probably in the same boat. So, they were looking for markets where, basically, their competition was in the same boat.

Getting back to your first point, as far as changes to this process that might enhance the number of bidders that might submit proposals, I don't know that I really can proffer any recommendations.

I hope that my testimony did not insinuate that I thought that the way the Florida rules were with the requirement to put the self-build unit information directly in the RFP that they were wrong, because I simply brought the issue up to Florida Power saying this may be a consequence, and we discussed it. But, I think, after my reading through the transcript of the Commission proceedings in the Gulf Power waiver, I saw the arguments going back and forth, and I concurred with the decision of the last Commission.

COMMISSIONER JACOBS: Well, I take a different tact on it. I think, the self-build option should prompt

the innovative company out there to sharpen their pencils.

THE WITNESS: I think, it would be somewhat disingenuous, to some extent, not to put the information in the RFP, because then you're going to have a number of companies coming in trying to bid something that's going to be rather profitable but not knowing what the target is.

And then, when the utility is allowed to put its cards on the table, and it's learned that this was a very competitive proposal and that the IPPs even have sharper pencils, they may feel especially burned. So, I think, in the interest of disclosure, it's actually beneficial to have the utility present the information as was done in Florida Power's case.

COMMISSIONER JACOBS: Very well. Redirect.

MR. SASSO: Very briefly.

REDIRECT EXAMINATION

BY MR. SASSO:

Q Mr. Taylor, were you able to observe whether Florida Power Corporation's use of PROSYM and PROVIEW on this project was appropriate, valid and consistent with industry practice?

A Yes, I was.

Q And what did you observe?

A I concluded that their use of the models was

consistent with what I've seen across the industry.

Q Ms. Brownless asked you about a discussion in your testimony, Page 10, about providing a capacity credit for market value of any capacity in excess of FPC's 20% reserve margin criterion. Can you explain to the Commissioners why this was done as part of the analysis?

A Yes. For any particular resource being evaluated, as was discussed through the testimony yesterday, portfolios of resources were built on the tail end of any short-term resources. So, there could be varying levels of capacity that were in surplus in the 20% minimum reserve margin.

So, therefore, this was simply a way of placing the different portfolios of resources on the same level playing field, as far as recognizing that certain portfolios might have additional capacity above and beyond the 20%. And that may have been with Bidder B or with Panda or with Florida Power. It changed from one year to the next, and it changed between sensitivities. So, it's simply a way to make sure that everything was level, as far as the amount of capacity.

Q Was the important consideration here the relative difference among the projects as opposed to the absolute numbers you got?

A Yes. I think that the absolute numbers, in and

of themselves, though, are fairly significant numbers. But, certainly, they translate into relative differences as well.

Q By using this capacity credit, did you mean to imply or do you believe Florida Power meant to imply that the company does not need the full 530 megawatts for its reserve margins?

A No. I've certainly seen this capacity credit given in numerous solicitations to recognize that a utility meeting or exceeding its reserve margin has additional value.

MR. SASSO: No further questions.

COMMISSIONER JACOBS: We have Exhibit --

MR. SASSO: Exhibit 13, we would move that in at this time.

COMMISSIONER JACOBS: And Exhibit 12?

MR. SASSO: That was the late filed.

COMMISSIONER JACOBS: I'm sorry, that was Ms. Brownless.

MS. BROWNLESS: Yes, sir; Crisp would provide.

COMMISSIONER JACOBS: Now, did you say a CV was attached to this?

MR. SASSO: Yeah, that's Exhibit 13.

COMMISSIONER JACOBS: Okay. I don't have that.

MR. SASSO: It should be in the back of the

public testimony. It's AST-1.

COMMISSIONER JACOBS: I don't have one, but just make sure the clerk has one. I don't have one in my --

MR. SASSO: We will.

COMMISSIONER JACOBS: Very well. Show Exhibit 13 is admitted.

(Exhibit 13 admitted into the record.)

COMMISSIONER JACOBS: We'll take a break, come back at 10:30.

(Brief recess.)

COMMISSIONER JACOBS: Should we wait for Mr. Sasso? Here he is.

MS. BOWMAN: Mr. Chairman, we can proceed.

COMMISSIONER JACOBS: Okay. Very well. We'll go back on the record. Let's see, we were about to call your next witness.

MS. BOWMAN: Yes, Mr. Chairman. Florida Power's next witness is Mr. Robert Niekum. And the parties and Staff have been able to stipulate on the admission of Mr. Niekum's prefiled testimony and exhibits.

COMMISSIONER JACOBS: Good news.

MS. BOWMAN: So, at this time, I would like to ask that Mr. Niekum's testimony be entered into the record as though read.

COMMISSIONER JACOBS: Without objection, show

Mr. Niekum's testimony as entered into the record as though read.

IN RE: PETITION FOR DETERMINATION OF NEED BY FLORIDA POWER CORPORATION FPSC DOCKET NO. _____

DIRECT TESTIMONY OF ROBERT D. NIEKUM

I. INTRODUCTION AND QUALIFICATIONS.

Q: Please state your name, your employer, and business address.

A. My name is Robert D. Niekum. I am employed by Florida Power Corporation ("FPC" or the "Company"). My business address is Florida Power Corporation, One Power Plaza, 263 13th Avenue, South, St. Petersburg, Florida 33701.

Q. Please tell us your position with the Company and describe your duties and responsibilities in that position.

A. I am currently employed by FPC as the Director of FPC's Fuels Supply Department. I have held that position for five (5) years. I have worked for FPC since 1982, and I have worked in FPC's Fuels Supply Department (formerly called the Fuels and Special Projects Department) since 1995. As the Director of FPC's Fuels Supply Department, I am ultimately responsible for the development and maintenance of FPC's fuels forecasts; the procurement of residual fuel oil, coal, distillate oil, and natural gas for FPC's electrical power generation facilities; and the administration of FPC's contracts for fuels with FPC's various suppliers.

Q. Please tell us about your educational background and experience.

A. I received a Bachelor of Science degree in Electrical Engineering from the University of Florida in 1976, and a Masters of Engineering in Electrical Engineering from the University of Florida in 1982. My undergraduate course work was primarily in the area of electrical engineering for power systems. My graduate work in electrical engineering specialized in electric utility system planning.

In June 1976, I was employed by the Jacksonville Electric Authority. I held several engineering positions in the Transmission and Substation Design Department, the Energy Control Center, and in the System Planning Department.

After receiving my Masters of Engineering in 1982, I was employed by FPC as a Project Engineer in the System Planning Department, responsible for transmission and distribution planning for two FPC divisions in central Florida. In 1989, I assumed the position of Senior Generation Planning Engineer. In December 1990, I was appointed Manager of Generation Planning. As the Generation Planning manager, I was responsible for the development of Integrated Resource Planning ("IRP") studies, engineering project evaluations, and generation reliability calculations. In March 1995, I was named Director of Fuels Supply, with responsibility for procurement of all of the fossil fuel used in the Company's fossil fuel plants. I was directly responsible for obtaining the fuel supply for the operation of the Hines 1 combined cycle plant.

Q. Are you a member of any professional organizations?

A. Yes. I am a member of the Institute of Electrical and Electronic Engineers. I am also a registered Professional Engineer in the State of Florida.

II. PURPOSE AND SUMMARY OF TESTIMONY.

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

A. I am testifying on behalf of FPC in support of its Petition for Determination of Need by (i) generally describing and explaining the reasonableness of the fuels forecast developed by the Fuels Supply Department and used by the Company in the IRP, (ii) identifying the types and amounts of fuel the Company plans on using at the Hines 2 plant ("Hines 2"), including the expected availability of those fuels for that plant, and (iii) generally describing the options available to transport the types and amounts of fuel the Company plans to use at Hines 2 to the Hines Energy Complex ("HEC") where the Hines 2 unit will be located.

Q. Are you sponsoring any sections of FPC's Need Study, Exhibit ____, (JBC-1)?

A. Yes. I am sponsoring Section II, C, 2., "FPC's Fuels Forecast," Section V, C, "Adequacy of Supply and Transportation of Fuels," and Section VII, E, "Fuel Transportation and Supply," of the Need Study.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes, I am sponsoring the following exhibits to my testimony:

RDN-1	**Chart of FPC's Fuels Forecast.**
RDN-2	**Chart of FPC's Base, High, and Low Case Natural Gas Forecasts.**
RDN-3	**Chart of FPC's Natural Gas Forecast Compared to Other Industry Forecasts.**
RDN-4	**Table of Estimated Gulf Coast Gas Reserves.**
RDN-5	**Table of Gas Transportation Options.**

Q. Please give us a summary of your testimony.

A. The Company relies on the Fuels Supply Department to prepare a fuels forecast for the IRP process. FPC's fuels forecast is a primary input in the IRP process. It projects both short- and long-range prices for the various types and grades of fuel available to and used by FPC on its electrical generation system.

FPC's fuels forecast is prepared under my direction, as Director of FPC's Fuels Supply Department, and I am involved in and have personal knowledge of the preparation of the forecast. FPC's fuels forecast is prepared from an extensive review and a rigorous analysis of available and relevant information, and from the experience of FPC and other Florida utilities and gas consumers with respect to fuel prices. Given my experience in developing fuels forecasts for FPC, and my knowledge of and experience with various widely recognized and generally

accepted third party fuels forecasts, I can state affirmatively that FPC's fuels forecast is reasonable and in line with the forecasts of other recognized industry sources for such forecasts.

Natural gas is the primary fuel planned for Hines 2. It is a readily available fuel source, given current and projected levels of long term supply of natural gas in the United States, and, as a result, is an economical fuel source for Hines 2. Backup fuel for Hines 2 will be distillate oil, which is also readily available as a fuel source now and in the future.

Natural gas will be transported to the Hines 2 unit by gas pipeline. The HEC is currently served by a connection to the Florida Gas Transmission Company ("FGT") pipeline but FGT does not have surplus firm transportation capacity sufficient to serve Hines 2. However, as demonstrated by Exhibit __ (RDN-5), expansions of the FGT pipeline and several additional gas pipelines have been proposed for service in the State of Florida and are in various stages of development, and one or more of these pipeline expansions and/or new gas pipelines can reasonably be expected to be completed and capable of providing natural gas transportation service to customers in the State of Florida, including FPC for Hines 2, in the next two to three years. FPC is confident that it will be able to arrange for all of the firm gas transportation service it will require for Hines 2 in time to meet the expected in-service date for that unit in late 2003.

Distillate oil, the planned backup fuel for the Hines 2 unit, will be transported to HEC by truck. Similar backup fuel transportation service is being provided now to HEC for the Hines 1 unit. The addition of Hines 2 is not

expected to increase significantly the truck transportation of distillate oil to the HEC. The existing oil tank at the HEC is adequate to provide backup fuel to both units (Hines 1 and 2) for approximately 3 days of operation at full load.

III. FPC'S FUELS FORECAST.

Q. Why do you supply a fuels forecast for the IRP process?

A. Relevant fuel prices and their differentials are important economic factors in determining the kinds of new generation to be added to FPC's system. Additionally, fuel prices are relevant to the determination of the most efficient method of operating existing and proposed generating units on FPC's system in compliance with environmental and system requirements. For these reasons, FPC's fuels forecasts are a material part of the IRP process.

Q. What is FPC's fuels forecast in the Company's IRP process?

A. FPC's fuels forecast is shown in Exhibit ___ (RDN-1).

Q. What are the basic components of FPC's fuels forecast?

A. The forecast consists of several discrete forecasts of prices by fuel type. Prices are projected for the following fuels: natural gas, coal, and oil. Where different grades of fuel are available — for example, in the case of coal and oil — we also have included price forecasts for several different grades or types. In addition, we developed a bandwidth of probable prices for each fuel by considering a base case

forecast as well as high and low case forecasts. The forecast also includes FPC's contracts for natural gas transportation capacity and estimates of interruptible natural gas supplies.

Q. Are the fuels represented in FPC's fuels forecast the most likely fuels to be available to and used by FPC during the forecast period?

A. Yes, they are.

Q. Can you generally describe the methodology behind FPC's fuels forecast in the IRP process?

A. Yes. We start with a list of the various fuels that potentially could be used at FPC's existing and future generation plants. Those fuels are: coal (including several grades or types of coal that can be burned at FPC's Crystal River Units 1, 2, 4, and 5), oil (2.5% sulfur, 1.5% sulfur, and 1.0% sulfur residual fuel oil, and No. 2 fuel oil), and natural gas. Next, we develop a low, base, and high price forecast for each fuel that we identified based on expected price trends over the next five to ten years, using our historical experience with fuel prices and reliance on our analysis of widely recognized and generally accepted third party sources of information relevant to the projected supply and price of each fuel. The base case is considered the most likely scenario. For example, a chart of FPC's base, low, and high case natural gas price forecasts can be found in Exhibit ___ (RDN-2).

Once FPC has prepared its fuels forecast, FPC continuously re-evaluates the forecast against various standard third party fuel price forecasts and

developments and trends with respect to each fuel type to verify that FPC was and is reasonable in developing its fuels forecasts. When and if necessary, FPC will adjust its fuels forecast to take into account changes in the fuels markets.

Q. How did you arrive at the natural gas forecast?

A. The natural gas price forecast was derived from price estimates for the Gulf Coast market area (such as the Henry Hub and Mobile Bay). FPC uses the Petroleum Industry Research Associates ("PIRA") as a forecasting consultant service. In addition, FPC contacts suppliers who are willing to enter into long-term contracts for gas supplies, and quotes by these companies are used as an additional forecast input. Also, data from public agencies such as the Energy Information Administration ("EIA") are considered as a reference source. The final forecast is an estimate based upon these inputs. Transportation costs, including fixed and variable components, were estimated based upon the prevailing tariff rate for service on the FGT pipeline system and the expected rates available from the various proposed new pipelines.

Q. What conclusion did you reach about natural gas as a fuel source for Hines 2, based on your work on FPC's fuels forecast?

A. Natural gas is and will be a competitively priced fuel source for Hines 2 compared to other types of fuel and generation technologies, based on the forecast of natural gas price trends compared to oil and coal price trends. It is also an attractive fuel source because, as compared to coal and oil, it is a clean burning fuel, which has a

favorable impact on the capital cost of constructing generating facilities capable of complying with current and future environmental regulations, including the Clean Air Act, and can reduce FPC's overall sulfur emissions in order to comply with the Clean Air Act.

Furthermore, based on our experience and in our professional judgment, and also on other widely recognized and generally accepted fuels forecasts, the projected prices for natural gas and other fuels in FPC's fuels forecast reasonably reflect FPC's future fuel costs. The chart in Exhibit ___(RDN-3) sets forth FPC's natural gas forecast along with the natural gas forecasts of other, widely recognized and generally accepted third party sources. As demonstrated in Exhibit ___ (RDN-3), FPC's natural gas forecast is in line with the natural gas forecasts of all of the third party sources reported there.

Q. The price of gas on the spot market has risen significantly in the last few months. Are FPC's fuels forecast and base natural gas forecast in Exhibits ____ and _____ (RDN-1 and RDN-3) still accurate?

A. Yes. We recognize that the spot price of gas has increased in the supply areas from which FPC expects to obtain the natural gas fuel for Hines 2. Price volatility exists and will continue to exist in the gas markets, but over the long term, as indicated by the FPC fuels and natural gas forecasts, we expect prices to come down from current levels.

IV. FUELS FOR THE HINES 2 UNIT.

Q. Please describe the types and amounts of fuels FPC expects to use in the Hines 2 unit.

A. The Hines 2 unit will be a state-of-the-art combined cycle unit similar to the Hines 1 unit. It will have a dual-fuel generation system, meaning that the combustion turbines can be operated on natural gas or distillate oil. For Hines 2, natural gas is the primary fuel and low sulfur (0.05 percent) distillate oil is the planned backup fuel. At peak operation, Hines 2 is expected to require approximately 80,000 million British thermal units (MMBtu) of gas a day, and its average use will be around 65,000 MMBtu per day.

Q. Will FPC be able to obtain sufficient natural gas supplies for the Hines 2 unit?

A. Yes. The daily quantity of gas required to operate Hines 2 is quite small in relation to overall domestic natural gas production, reserves, and resources. The natural gas exploration and production industry, in this country and in Canada, is engaged in aggressive efforts to maintain and expand the North American natural gas reserve base, spurred by both greater demand for gas and higher gas prices. There is a substantial amount of exploration and development activity going forward in the deeper waters of the Gulf of Mexico, where large new gas reserves have been and are expected to be discovered and developed, and these new reserves will be a geographically close source of supply for Hines 2. Further, and

as demonstrated by the proposed Cypress pipeline project, liquefied natural gas ("LNG") is being added to the mix of gas supply available to U.S. gas consumers. Exhibit __ (RDN-4) sets out the forecasts for Gulf Coast gas resources of the leading sources of such information and clearly shows that there will be adequate supplies of natural gas to fuel the Hines 2 facility over its useful life.

Q. Will FPC be able to obtain sufficient natural gas supplies for the Hines 2 unit at a reasonable cost?

A. Yes. One reason is the abundance of the Gulf Coast gas reserves, as reflected in my answer to the previous question. Florida is situated rather close to significant existing and potential onshore gas reserves in Louisiana, Mississippi, and Alabama, as well as the existing and potential offshore Gulf Coast gas producing regions and some of the nation's largest deposits of coalbed methane. These supply sources have and will have easy access to the existing FGT pipeline, and FPC is confident that a new underwater gas pipeline will be constructed that will directly connect the Florida gas markets to the huge existing and potential gas reserves of the Gulf Coast and adjacent Outer Continental Shelf. Consequently, transportation distances for natural gas into Florida are now relatively short and will become shorter, resulting in lower transportation costs for gas sold for consumption in Florida, so that we may be assured that natural gas will be aggressively and competitively marketed in the State of Florida.

Q. Has FPC signed any contracts or letters of intent for its gas supply to Hines 2?

A. No.

Q. Why not?

A. At this point, before the Company has received regulatory authorization for Hines 2, and long before that facility's expected in-service date, it would be premature, potentially costly, and unnecessary for FPC to enter into contracts for either short- or long-term gas supplies. Most suppliers would insist that FPC make significant "up front" payments and/or "stand by" payments in return for a commitment of their reserves at this time to Hines 2, and the cost of such payments made in advance of gas delivery and use would more than offset any potential increase in gas prices between the present and the Hines 2 in-service date. Further, the prices in the gas supply markets from which FPC expects to supply natural gas to Hines 2 are currently relatively high, due to high demand for gas relative to the ability of the operators of those reserves to make gas available for delivery. This tight deliverability situation was caused in large part by the low prices for gas that prevailed for much of the preceding two to three years, and is expected to be a temporary condition as improving gas prices provide the impetus for additional exploration and development and expansion of reserves and deliverability, which, in turn, will put downward pressure on price. FPC believes, based on its fuels forecast and gas procurement experience, that the cost of gas supply for Hines 2 will be lower if the contracts for such supply are entered into closer to the

facility's in-service date — when the supplier(s) will receive immediate cash flow from the supply contract(s) — than if contracts were negotiated in today's market conditions.

Q. Will FPC be able to obtain short- and long-term gas supply contracts in time for the commercial operation of Hines 2?

A. Yes. The Company plans to enter into contractual arrangements for firm gas supply for delivery as of the in-service date of Hines 2, well prior to the commencement of commercial operation of Hines 2. The Fuels Department has developed and maintains gas supply relationships with a number of gas producers and gas marketers, and anticipates no difficulty in obtaining contracts for gas supplies adequate for Hines 2 on competitive terms and conditions at market-based prices. In all likelihood we will enter into a "portfolio" of gas supply contracts of varying terms to meet the Hines 2 requirements, in order to achieve the lowest cost of fuel consistent with reliable availability. As discussed more fully below, we expect to contract on a long-term firm basis for gas transportation capacity for all or most of Hines 2's gas supply, although we may enter into one or more supply contracts under the terms of which the gas supplier arranges for the delivery of the gas to the HEC for Hines 2.

V. FUEL TRANSPORTATION FOR THE HINES 2 UNIT.

Q. Will FPC be able to obtain sufficient and reliable transportation service for the Hines 2 gas supplies?

A. Yes. As reflected by Exhibit __ (RDN-5), FGT is now constructing its Phase IV pipeline expansion, in which FPC has subscribed for firm capacity for its existing gas-fired generation fleet, and there are two further expansions of the FGT pipeline, Phase V and Phase VI, currently in the development stage, which will provide additional gas transportation capacity to the Florida gas markets. There are also two new pipeline projects, the Gulfstream Natural Gas System ("Gulfstream") project and the Buccaneer Gas Pipeline Company ("Buccaneer") project, that have received preliminary authorization from the Federal Energy Regulatory Commission ("FERC") to construct interstate gas pipelines under the Gulf of Mexico to serve Florida's gas markets. Further, El Paso Energy Corporation has proposed a pipeline project, the Cypress pipeline, to transport gasified LNG from its Elba Island LNG terminal to an interconnection with FGT in north Florida. FPC has discussions ongoing with FGT, Gulfstream, Buccaneer, and Cypress, concerning FPC's requirements for firm gas transportation capacity for Hines 2, approximately 65,000 MMBtus per day of transportation service. FPC is, therefore, confident that it will be able to obtain a contract(s) for all of its gas transportation service requirements for Hines 2. FPC expects that the rates it will pay for that service will be no higher than, and, because of the competitive environment in which FPC will negotiate its gas transportation contract(s) for

Hines 2, in all likelihood lower than, the rate for firm gas transportation service currently charged by FGT under its FERC natural gas tariff.

Q. Does this conclude your direct testimony?

A. Yes.

MS. BOWMAN: And Mr. Chairman, Mr. Niekum also had a number of prefiled exhibits, RDN-1 through RDN-5. At this time, I would ask that they be marked as composite Exhibit 14 and admitted into the record.

COMMISSIONER JACOBS: Very well. Show that composite Exhibit consisting of RDN-1, RDN-2, 3, 4, and 5 is marked as Exhibit 14 and without objection, show it admitted.

(Exhibit 14 marked for identification and admitted into the record.)

COMMISSIONER JACOBS: No other exhibits for Mr. Niekum? Very well. Thank you.

MR. WALLS: Mr. Chairman, our next witness is Mr. Eric Major.

ERIC G. MAJOR

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

DIRECT EXAMINATION

BY MR. WALLS:

Q Mr. Major, will you introduce yourself to the Commission by giving your name, position and business address, please.

A Eric Major; I work for Florida Power as Director of Construction and Design Engineering. Business address

is 263 13th Avenue South, St. Petersburg, Florida 33701.

Q Mr. Major, did you prepare and file direct prefiled testimony in this proceeding?

A Yes, I did.

Q Did you also prepare and file, in this proceeding, certain exhibits identified in your prefiled testimony?

A Yes, I did.

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

A Yes, they would.

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

A No, I do not.

Q Do you adopt this testimony as your sworn testimony before the Commission in this proceeding?

A Yes, I do.

MR. WALLS: Mr. Chairman, I request that Mr. Major's prefiled testimony be entered into the record as though read.

COMMISSIONER JACOBS: Show it entered into the record as though read.

IN RE: PETITION FOR DETERMINATION OF NEED BY FLORIDA POWER CORPORATION FPSC DOCKET NO. _____

DIRECT TESTIMONY OF ERIC G. MAJOR

I. INTRODUCTION AND QUALIFICATIONS.

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

A. My name is Eric G. Major. I am employed by Florida Power Corporation ("FPC" or the "Company"). My business address is Florida Power Corporation, One Power Plaza, 263 13th Avenue, South, St. Petersburg, Florida 33701-5512.

Q. Please tell us your position with Florida Power Corporation and describe your duties and responsibilities in that position.

A. I am employed by FPC as its Director of Construction and Design Engineering. As FPC's Director of Construction and Design Engineering, I am responsible for the overall management and direction of licensing, engineering, procurement, and construction activities associated with new supply-side, generation projects for the Company. This includes the Hines 2 combined cycle generation plant.

Q. Please tell us about your educational background and experience.

A. I received a Bachelor of Science degree in Civil Engineering from the University of Florida in 1967. In 1971, I received a Masters degree in Engineering Administration from the University of South Florida. I am a Registered Professional Engineer in the

State of Florida, and I have been so registered since 1971. I am also a certified Electrical Contractor, certified General Contractor, and certified Mechanical Contractor in the State of Florida.

My employment history began with FPC in May 1967. I have 12 years of combined engineering/managerial experience in the Energy Delivery area of our Company, 8 years managerial experience in Materials and Contracts, and 13 years of managerial experience in the Energy Supply area of FPC. Since 1990, I have been directing the generation construction activities of FPC during which time FPC has installed a nominal 1,400 MW of generation.

II. PURPOSE AND SUMMARY OF TESTIMONY.

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

A. I am testifying on behalf of FPC, in support of its Petition for Determination of Need, by describing the site and unit characteristics for the Hines 2 combined cycle generation plant, including the size, number of units, fuel type and supply modes, the approximate costs, and the projected in-service date.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring the following exhibits to my testimony:

EGM-1	**Hines Energy Complex Map.**
EGM-2	**Site Arrangement – Overall Plan.**
EGM-3	**Site Arrangement -- Power Block Area.**

EGM-4	**Typical Combined Cycle Schematic.**
EGM-5	**Installed Cost Estimate for Hines 2 Unit.**
EGM-6	**Project Schedule for Hines 2 Unit.**

Q. Please give us a summary of your testimony.

A. The Company plans to build Hines 2 at the Hines Energy Complex ("HEC"), its existing generation site in Polk County, Florida. That site contains the Hines 1 combined cycle generation unit and its associated facilities. In 1994, the Governor and Cabinet, sitting as the Siting Board, certified the HEC for construction and operation of the Hines 1 unit and for 3,000 megawatts ("MW") of ultimate generation capacity at the site. Hines 2 will account for another 530 MW of nominal capacity located at the site, and it will share many of the existing facilities at the site with Hines 1. The ability to share facilities at the site adds to the cost-effectiveness of the Hines 2 unit. The Company and its ratepayers will capture the cost savings associated with the economies of scale achieved from using the existing facilities for the operation of both the Hines 1 and the Hines 2 units.

Hines 2 is a "sister" unit to Hines 1. It is a state-of-the art, highly efficient combined cycle unit that will operate on natural gas with distillate oil as the backup fuel. Its beneficial heat rate, availability, and responsiveness, among other attributes, provide the Company with a low-cost, highly flexible source of power. Hines 2 therefore enhances the overall operation and efficiency of the Company's system to the direct economic benefit of the Company and its ratepayers.

Apart from the cost savings achieved by placing in operation a state-of-the-art, highly efficient generation unit, the Company and its ratepayers will further benefit from a below market cost for the unit. The projected cost for Hines 2 is approximately $198 million, which is well below the current market cost for equivalent units, because the Company has preserved its previously negotiated, favorable equipment terms.

In sum, Hines 2 allows the Company to meet its reliability needs with the most efficient and sought after technology on the market at a below market cost, giving the Company and its ratepayers substantial economic benefits in terms of technology, efficiency and flexibility in operation, and cost of generating power.

III. DESCRIPTION OF THE HINES 2 SITE.

Q. Please describe the location of the HEC.

A. The HEC is located in southwest Polk County, Florida, approximately 40 miles east of Tampa, 7 miles south of Bartow, and approximately 3.5 miles northwest of Ft. Meade. County Road 640 is on the northern boundary of the HEC, and County Road 555 runs through the site north to south. The location of the HEC is shown in Exhibit ____ (EGM-1).

Q. Please describe the location of Hines 2 at the HEC.

A. Exhibit ___ (EGM-2) is the HEC site plan and shows the development of the entire site. It depicts the relationship of the location of the power block, including Hines 1

and the proposed Hines 2 unit, in relation to the existing cooling ponds and water treatment and wastewater disposal areas for both units. Exhibit ___ (EGM-3) is the power block layout for Hines 2. It depicts the Hines 2 power block in relation to the Hines 1 power block and existing rail lines, state roads, and access roads that will serve both units, and existing dikes and former phosphate mining areas on the HEC site.

Q. Do the Company and its ratepayers benefit from the location of the Hines 2 unit at the HEC?

A. Yes.

Q. What are the benefits to the Company and its ratepayers from locating the Hines 2 unit at the HEC?

A. Location of the Hines 2 unit at the HEC offers the Company and its ratepayers the ability to achieve economies of scale by using existing improvements at the site for operation of the Hines 2 unit. By building Hines 2 at the HEC, the Company will be able to use the existing access road, cooling pond, reclaimed water supply pipeline, water treatment and wastewater disposal facilities, gas lateral, and transmission facilities, among other site improvements, for both the Hines 1 unit and the proposed Hines 2 unit. Because the Company can use the existing site improvements for both units, the Company will not have to design and construct such improvements for the Hines 2 unit. Location of the Hines 2 unit at the HEC will save the Company site development costs the Company otherwise would have incurred. As a result, the

Company and its ratepayers will save additional engineering and construction costs by locating Hines 2 at the HEC.

IV. DESCRIPTION OF THE HINES 2 UNIT.

Q. Please describe the proposed design of the Hines 2 unit.

A. The Hines 2 unit is a state-of-the-art combined cycle unit similar to the Hines 1 unit. It consists of two nominal 170 MW Westinghouse 501 F combustion turbines, two unfired heat recovery steam generators, one nominal 190 MW steam turbine, and a recirculating water cooling system. It is a dual-fuel generation system, meaning that the combustion turbines can be operated on natural gas or distillate oil. For Hines 2, natural gas is the primary fuel, and low sulfur (0.05 percent) distillate oil is the planned backup fuel.

The dual-fueled combustion turbines and steam turbine for the Hines 2 unit are configured in sequential stages, as shown in the typical schematic for a combined cycle unit in Exhibit ___ (EGM-4). The first stage includes the combustion turbines, much like utility peaking units, which generate electrical energy. In the second stage of the process, the hot gas from the combustion turbines is passed through the heat recovery steam generator, where steam is produced and fed into the steam turbine to generate additional electrical energy — hence, the term "combined cycle" generation technology.

Q. Are there advantages to combined cycle technology for the Company?

A. Yes.

Q. What are those advantages?

A. The combined cycle generation technology is very efficient because it generates electrical energy from the input fuel both directly, through the combustion turbines, and indirectly, through the heat recovery steam generator and steam turbine. Further flexibility exists through the use of reheat configurations. By reheating extracted steam, additional improvements in cycle efficiency can be achieved. In all of these ways, combined cycle technology makes the most of the input fuel, achieving increased efficiency in the generation of electrical energy from the available fuel source. For these reasons, the modern combined cycle power plant is one of the most efficient power cycles available today.

Another advantage of the combined cycle design is that it allows for greater flexibility in matching system operating characteristics over time. Because of its technological efficiency, it can readily be called on to meet varying operational load requirements in an economical manner. Thus, the Hines 2 combined cycle unit can function as a baseload or intermediate unit, if required by the Company's system.

In addition to its high efficiency, the Hines 2 unit will have a low environmental impact. Combined cycle units operating on natural gas, like the Hines 2 unit, are one of the cleanest sources of fossil generation. Flue gas is the only byproduct of the combustion process, whether burning natural gas or distillate oil, that leaves the HEC. Both are low sulfur, low ash fuels. Thus, sulfur and

particulate emissions are virtually nonexistent. Nitrogen oxides will be controlled by selective catalytic reduction. Airborne emissions therefore will be limited by the use of a relatively clean fuel and the appropriate application of control technologies.

Consumptive water use will be significantly lower than traditional steam turbine cycles, requiring approximately one-third the amount of water used by a steam only cycle. For these reasons, the combined cycle technology of Hines 2 is a relatively benign one in terms of its impact on the environment.

Q. How will fuel be provided and handled for the Hines 2 unit?

A. As noted above, Hines 2 is designed to operate on natural gas as a primary fuel with fuel oil as the backup fuel. Natural gas will be delivered by pipeline to the HEC. The existing gas lateral at the HEC is sufficient to supply the Hines 2 unit. No additional gas lateral is necessary at the HEC.

Additionally, there currently is onsite storage for the distillate oil, providing sufficient storage capabilities to operate Hines 1 and 2 for approximately three (3) days of continuous unit operation at full load on the backup fuel. No additional storage facilities for the backup fuel are necessary for the Hines 2 unit. The distillate oil for the Hines 2 unit will be delivered to the HEC by tanker trucks. The Hines 2 unit will be capable of automatically switching from natural gas to distillate oil firing without shutdown.

Q. How does the Company plan to construct the Hines 2 unit?

A. FPC will maintain direct overall management of the project, including participation in construction management functions, by having a substantial presence onsite during the construction and startup phase. FPC may elect to competitively select equipment suppliers, the architect/engineering ("A/E") firm, and the constructors, or the Company may opt to contract for a design-build turnkey approach. The exact method will be evaluated considering the competitive market while minimizing the Company's risk. In either case, the beneficial option pricing for the power island equipment would still be exercised.

Q. What will it cost the Company to build Hines 2?

A. The total installed cost for the Hines 2 unit is approximately $203.2 million (including transmission costs), in actual dollars, as shown in Exhibit ____, (EGM-5). This cost was developed on the basis of the Polk Combined Cycle Project Specifications (with minimal revisions) and option contracts originally negotiated in 1996. A breakdown of the major cost items for the Hines 2 unit is also included in Exhibit ___, (EGM-5).

The project cost for Hines 2 reflects significant savings compared to the current competitive generation market for equivalent combined cycle technology. The savings were obtained because the Company was able to (i) negotiate and preserve beneficial equipment pricing and other favorable contract terms and conditions (for example, performance guarantees and liquidated damages provisions) from its major equipment supplier(s), thus reducing its capital costs

compared to current market costs for the same equipment and (ii) share common site utilities and facilities with the Hines 1 unit, thus reducing or eliminating site development and construction costs and associated facilities costs the Company would have otherwise incurred.

Q. What will it cost the Company to operate the Hines 2 unit?

A. The estimated annual fixed Operating and Maintenance ("O&M") costs are $2.2 million (in 2003) dollars, and the estimated variable O&M is $1.11/MWh (also in 2003 dollars). The O&M cost estimates are based on a unit life of 25 years. For the fixed O&M analysis, it was assumed that fixed costs will remain constant in real dollars over the life of the plant. Fixed O&M costs are those costs that are incurred whether the unit is operating or not. The largest fixed costs for the Hines 2 unit are wages and wage-related overheads for the permanent plant staff. Variable O&M costs are a function of the unit's operation. They include consumables, chemicals, lubricants, water, and maintenance repair parts.

Q. When Hines 2 is constructed and in operation, what will be its operational characteristics?

A. As noted above, Hines 2 will have state-of-the-art combined cycle technology. As a result, it will be a highly efficient unit with an excellent heat rate, operating on average at a net heat rate of 6,975 Btu/kWh. The Hines 2 unit will have an equivalent availability factor of approximately 94 percent, which takes into account

a 4 percent forced outage rate and all scheduled maintenance outages. Hines 2 is expected to have a capacity factor range of roughly 55 percent to 65 percent. Upon construction and operation, Hines 2 will be the most efficient unit on the Company's system.

V. PROPOSED SCHEDULE.

Q. What is the in-service date for the Hines 2 unit?

A. Hines 2 is scheduled to come on line by November 30, 2003.

Q. Will the Company meet that in-service date?

A. Yes, barring any unforeseen and significant delays. The proposed schedule for the permitting and construction of the Hines 2 unit is contained in Exhibit ___, (EGM-6). In my opinion, this schedule is reasonable and can be met by the Company.

Q. Does this conclude your direct testimony?

A. Yes.

MR. WALLS: And Mr. Chairman, I would like to ask that Mr. Major's exhibits numbered EGM-1 through EGM-6 be marked as composite Exhibit Number 15.

COMMISSIONER JACOBS: Show those marked as Exhibit 15.

(Exhibit 15 marked for identification.)

BY MR. WALLS:

Q Mr. Major, have you prepared a summary of your testimony?

A Yes, I have.

Q Would you present it to the Commission, please?

A Sure. The company plans to build Hines 2 at the Hines energy complex, its existing generation site in Polk County, Florida. This site contains the Hines 1 combined cycle unit in its associated facilities.

In 1994, Hines was certified for the construction and operation of the Hines 1 Unit and for 3,000 megawatts of ultimate generation capacity at the site. Hines 2 will account for another 530 megawatts of nominal capacity at the site, and it will share many of the existing facilities with Hines 1. The ability to share facilities at the site adds to the cost-effectiveness of the Hines 2 Unit.

Both the company and its ratepayers will capture cost savings associated with the economies of scale

achieved from using the existing facilities for the operation of both the Hines 1 and the Hines 2 Units.

I like to describe Hines 2 as a sister unit to Hines 1. It is a state-of-the-art, highly-efficient combined cycle unit that will operate on natural gas with distillate oil as the back-up fuel. Its beneficial heat rate, availability and responsiveness, among other attributes, provide the company with a low-cost, highly-flexible source of power.

Hines 2 enhances the overall operation and efficiency of the company's system to the direct economic benefit of the company and its ratepayers. The company and its ratepayers will further benefit from a below market cost for the unit.

The projected cost for Hines 2 is approximately $198 million, which is below the current market cost for equivalent units. We were able to achieve this, because the company has preserved its previously negotiated favorable equipment terms.

In summary, Hines 2 allows the company to meet its reliability needs with the most efficient and sought-after technology on the market at a below-market cost giving the company and its ratepayers substantial economic benefits in terms of technology, efficiency, flexibility, and operation and cost of generating power.

MR. WALLS: Mr. Chairman, we tender Mr. Major for cross examination.

COMMISSIONER JACOBS: Ms. Brownless.

CROSS EXAMINATION

BY MS. BROWNLESS:

Q Good afternoon, Mr. Major, how are you?

A Fine.

Q I'd like to ask a question to start with about the schedule that you have attached as Exhibit Number 6.

A Yes, ma'am.

Q And just so this is on the record, there is an indication on the bottom right-hand corner that this is a confidential exhibit, but I am assuming that because it's in your prefiled direct testimony you're not asserting confidentiality as to this exhibit?

A That is correct.

Q Okay. So, it's fine for us to talk about this and ask questions about it; is that correct?

A Yes.

Q Okay. I want to ask about the very first block up here. It says "Corporate Decision." And I see that that has a little triangle at, what I take it, is the end of December of the year 1999; is that correct?

A That's what the chart says, yes.

Q Then, I also see RFPs and responses on the next

line -- or actually the line you've labeled number 3 --

A That is correct.

Q -- end in, let's see, March; is that correct, 2000?

A That is correct.

Q RFP analysis and negotiation end in May of 2000?

A That is correct.

Q Need preparation begin in May of 2000. I'm looking at Line 6.

A Yeah, mine shows June 1st for the dark line.

Q What does the blue line prior to that mean, you know, the light blue line?

A For this entire -- I can speak to the construction and design activities. Those are some preliminary activities. And it also shows some select time that was covered in the schedule.

Q Well, let me ask this question. You don't know what was happening between January of 2000 and the end of May 2000 with regard to need preparation?

A No, I have general knowledge that need preparation was in process.

Q And that would be need preparation with the Hines Unit 2 unit, correct?

A No, it was need prep -- well --

Q I mean, it would involve Hines Unit 2, right?

A It was preparation for added capacity that the planners had determined was needed in a certain time frame.

Q Okay. All right. But the data preparation would have been applicable for -- well, let me ask this.

The data preparation in that time period included data that was associated with Hines Unit 2?

A Yes, ma'am.

Q Thank you.

You're indicating need approval and review by the PSC from, what is this, August 1st through the end of December; is that correct?

A That is correct.

Q What do these little triangles mean? When there's a triangle there, what does that mean?

MR. WALLS: Let me object to the form of the question.

BY MS. BROWNLESS:

Q There is a little triangle at the end of line number 7. What does that symbol symbolize there, signify there?

COMMISSIONER JACOBS: We'll allow that. That sounds reasonable enough.

A Well, I can't answer that question. I don't have knowledge of specifically in the preliminary

activities what that highlights. I know on the construction side those symbols highlight some key activities.

BY MS. BROWNLESS:

Q That must be completed by that time?

A That occur in that time, that are projected to occur in that time frame.

COMMISSIONER JABER: May I -- I was trying to understand this schedule, too, because there's no legend.

THE WITNESS: Yes.

COMMISSIONER JABER: Help me understand what the significance is between the shading and the color. You know, what does the light blue mean in the chart? What does the dark blue mean in the chart? What does -- there's no legend on this schedule. What do the stars mean? What do the triangles mean?

THE WITNESS: On the triangles and the stars, the triangles are complete dates for completed activities. The stars -- I can only comment on the stars in the bottom half of the chart beginning with activity 22, which are areas that I'm directly accountable for. And the two stars of their construction and start-up, those are based on combustion turbine projected delivery dates. The last star under that activity is commercial operation date.

MS. BROWNLESS: Are you finished, Commissioner?

COMMISSIONER JABER: (Inaudible response.)

BY MS. BROWNLESS:

Q I'm now looking at the two stars that are right above Line 26, I guess, construction and start-up?

A Yes.

Q And those correlate to March and April of this year, I take it?

A March and April of 2003.

Q Okay. What do those stars mean?

A As I had mentioned, those are the projected -- the delivery dates for the first and second combustion turbine for Hines power block 2.

Q What about the heat recovery steam unit?

A Those will be delivered in advance of the combustion turbines, as will the steam turbine.

Q And do you have that on here somewhere?

A No, we do not.

Q When would that be?

A I don't have exact dates available with me today. We do have a construction schedule on those, but those are well in advance. I believe that they start coming in toward the mid part of 2002.

Q Okay, that would be May or June, maybe?

A I'd have to check our detailed schedule to be exact, but in that general time frame.

Q Okay. And that's the steam heat recovery unit. And what else did you just tell me?

A The steam turbine which would, I believe, come in the latter part of 2002.

Q Okay. So, the steam turbine comes in toward the end of 2002?

A I believe, that's correct.

Q And the heat recovery unit comes in, in sort of the middle of 2002?

A I would say the start of the delivery on the heat recovery steam generators would be around the middle of 2002.

Q So, then, in terms of equipment, the last equipment delivery date are what's indicated by the two stars here, and that's for the CTEs?

A Yeah, of the major components for the power block. And there'll, of course, be some incidental equipment that will arrive after those, but in terms of the main equipment, that would be it.

Q So, that would be the last date by which the main equipment associated with the Siemens Westinghouse contract would be delivered?

A That is correct.

Q In your section that you're responsible for, items 22 through 27, what do the shaded blue areas mean?

A Well, in reality, there's really not much distinction between the shading in the schedule for our area. The shaded blue areas are when the chart was prepared we anticipated activity being ongoing for some of those activities.

Q The triangle that's shown in conjunction with Line 26, that's about at the 1st of November in 2001, what is that related to? What event does that signify?

A Originally, when this chart was prepared, that was anticipated as probably the earliest construction start date that we would have for Hines power block 2. This has subsequently been revised, and there is now a later date.

Q What is the later date?

A We anticipate moving on to site first quarter of 2002.

Q Anytime in the first quarter from January to March?

A A date has not been determined.

Q What was the reason for that being moved?

A To minimize the time on site and to pretty much line up with a similar schedule that we built Hines 1 under and minimize the administrative time and the construction overheads by utilizing contractors and resources longer than they needed to be utilized.

Q Okay. What does this little blue line here on Line 24, pre-construction and engineering, what is that all about? What activities are entailed in there?

A Okay. The first blue line, the earlier line which is in the year 2000, that's some preliminary engineering that involved supporting negotiations in developing the complete technical spec for the equipment supply. So, that was support to wrap up the final technical features of the Westinghouse contract. And then, the latter schedule line in 2001 is the actual engineering for detailed engineering for the project.

Q So, this activity that's taking place in 2001 would be preparation of the as-built plans and all that stuff?

A Well, the preparation for the actual plans.

Q That's what I'm saying.

A Yes.

Q The actual plans that you would, for example, take to a permitting agency and say, "This is exactly what I'm going to build."

A Well, the plans and the details that go to the permitting agencies have -- they get done earlier in the process. The detail engineering is -- that's how the project is going to be built and what the contractor builds the facility to.

Q I think, we're talking about exactly the same thing. And I'm going to try to analogize this to houses, because I know about that. These would be the blueprints that you would give to your contractor so that he could actually do what he needs to do to construct your house, correct?

A That's correct.

Q Now, the little triangle that ends, let's see here, August 31st or September 1st, that's associated with negotiating the Westinghouse contract, what do you have in mind there?

A When this schedule was prepared, that was the date that we had an expectation of having a complete contract for Hines 2 with Siemens Westinghouse.

Q And what do you mean by complete contract?

A When I say complete, an executed contract.

Q Now, you've testified that you have a commitment from Siemens Westinghouse regarding certain -- regarding the 501-F unit; is that correct?

A That is correct.

Q Okay. What is the relationship between that commitment and this detailed contract?

A The commitment is a reservation of production slots to assure that the power block equipment can be delivered in time to meet our commercial operations. And

that stems from an option agreement that we had in the Hines 1 contract for additional units out into the future for commercial operation through 2003.

So, in today's marketplace, with lead times on combustion turbines being as far out as four years, any developer or utility can't wait until all approvals are in hand to construct a facility. They must reserve production slots and put some dollars at risk to assure they'll have equipment to go forward with the project.

Q I want to make sure I understand what you're saying. My impression is that Siemens Westinghouse can only produce so many of these units per year; is that correct?

A They have a limitation.

Q Yeah, they have a limitation on the number of units per year that they can produce.

A That's correct.

Q Okay. And hence, and I don't know what that limit is, but for purposes of illustration here, I'm going to say it's 100 units. I mean, I don't know if that's right or not, I'm just using that.

So, if I understand what you're telling me, you're saying that if you were to -- if Power Corp. were to go to Siemens Westinghouse today, Siemens Westinghouse doesn't have units on the shelf that it can just hand to

you; is that correct?

A That is correct.

Q And I assume that the reason these units are reserved and optioned in advance is because it takes Siemens Westinghouse a considerable amount of production time to produce these units.

A Yes. And let me try to explain the option a little further, which I don't think would violate any confidentiality.

We had options for additional units, but there were also some terms that were there. Like, we had options to units provided that there were available production slots at the time that we advised Westinghouse that we were going to exercise the option.

Q And was there a time limit in this option agreement that said you must tell us by "X" date if you want this unit?

A There was not a specific time limit in the contract, but what it required us to do was continually monitor what the lead times of Westinghouse turbines were so that we could get them noticed far enough in advance to meet projected needs, if we had any.

Q And you also had to try to monitor whether there were available production slots at the time you made that request, correct?

A That is correct.

Q Did you apply this -- well, let me ask this question: Do you know how long it takes Siemens Westinghouse to produce one of these units?

A I do not specifically know that, no.

Q Okay. So, in any year in which they had 100 units, and they had one production slot available for that year, okay, because that's when you'd be making -- exercising your option and saying, okay, I'm exercising my option, I want one unit, and they'd say, okay, we have a production slot available for that year, correct?

A Well, in reality, it was -- we would ask what the earliest available production slots would be.

Q Okay.

A Like, in today's marketplace, you're probably looking at not being able to get deliveries until late in 2003 or early in 2004, if you committed for a production slot today.

Q Okay.

A And they're fully booked throughout that time frame, as is GE and other combustion turbine members.

Q All right. When did Florida Power Corporation feel, based upon your knowledge of available slots and your own needs, was the drop-dead date by which you needed to notify Seimens Westinghouse that you, in fact, wanted a

unit?

A For this most recent Hines 2?

Q For this, Hines 2.

A As I recall, there were planning studies that went on in the mid to latter part of 1999 that identified a potential need for added capacity. Florida Power had previously reserved a production slot for a Hines unit that we had requested the bid waiver on for an in-service in November of 2001 --

Q So, let me make sure I understand that.

A -- which --

Q You'd already told Seimens Westinghouse, please, hold that unit for me, I want that unit. And you did that in order to keep this equipment available so that you could put it into service in 2001, which is what you told the PSC you wanted to do.

A The original --

Q The original --

A -- option exercise had reserved a production slot. There was a down payment associated with that.

Q How much was that down payment?

A That's covered under the confidentiality.

MS. BROWNLESS: Let me just pass out some exhibits.

MS. HART: Mr. Chairman?

COMMISSIONER JACOBS: Yes.

MS. HART: I'd just like to point out that this is part of our composite Exhibit 6.

COMMISSIONER JACOBS: Okay. So, you don't need to mark this separately?

MS. BROWNLESS: No.

COMMISSIONER JACOBS: Okay.

BY MS. BROWNLESS:

Q Mr. Major, can you look at this exhibit, please.

A Yes.

Q Okay. Are you familiar with this exhibit?

A No, I'm not.

Q Well, let me ask you to look at the fourth bullet point?

A Okay.

Q And it has a number there?

A Yes.

Q Okay. Is that the down payment or deposit that was made on the unit you've just described?

A That is, yes.

Q And that was made in 1998?

A That is correct.

Q With regard to that unit, the -- I'll call it the 1998 unit so we don't get confused here, that first unit, were production payments required -- progressive

production payments required to be made? By that, I mean, installment payments to Seimens Westinghouse?

A Yes. There was a schedule for progress payments.

Q Progress payments. And do you know, pursuant to that schedule, whether those progress payments were made?

A There were no other payments made beyond this one that is listed under bullet 4.

Q And that would be with regard to the first unit; is that correct, the unit associated with the 1998 bid?

A That's correct.

Q Okay. Do you still have the ability to have access to that unit?

A No, ma'am, we do not.

Q Okay. What happened to the money listed here associated with that unit?

A Through negotiations with Seimens Westinghouse, the latter part of 1999, we had that payment applied to production slots for what we're now calling power block 2, Hines 2.

Q Okay. Now, those negotiations with Westinghouse, were they subsequent to the date of this exhibit?

A Yes. The date of this exhibit?

Q At the top right-hand corner?

A I think, the negotiations were ongoing around this time.

Q Okay. So, they were either concurrent, perhaps?

A Well, they were ongoing at that time.

Q Yeah, they were taking place concurrently at this date. Okay.

At the very bottom, there is a statement, okay? Was that date met? It's in that little blurb at the bottom.

A No, that date was not met. There were continuing negotiations going on at that time and for most of this year up until just recently.

Q Okay. So, you started negotiating with Seimens Westinghouse in the fall of '99, correct?

A Fall to winter, late in '99.

Q And you kept negotiating with them until when?

A Well, in reality, until maybe six or eight weeks ago.

Q And this negotiation would be associated with a revision of your original Hines Unit 1 contract?

A Yeah. The negotiations were to incorporate lessons learned from Hines 1 in terms of incorporating some technical features that we deem more desirable, commercial terms. The contract also includes some other pieces of equipment beyond the combustion turbines and

some negotiations about those specifications. It included a variety of technical and commercial issues.

Q In the give and take of that negotiation, did you lose the ability to get two combustion turbines under your option rather than one?

A When you say two combustion turbines --

Q I mean, two combined cycles, two 501 power blocks.

A Well, as a result of the final negotiations that were developed, there was a cut-off date in terms of how long that option would be in place for. And that was for units in commercial operation through 2003.

Q That was the original option, correct?

A That is correct.

Q And that original option let you have access to two power blocks, correct?

A Now, that original option, in actuality, did not limit the number of power blocks.

Q Oh. So, you could have had as many as you could get slots for?

A Yes.

Q Okay. When did you, specifically, lose the ability under that option to exercise it for as many as you wished?

A I think, we lost that ability by default when

their lead times exceeded the ability to achieve commercial operations by 2003.

Q And give me a date.

A That would have been sometime in the mid, probably mid year.

Q Of what year?

A Of this year.

Q 2000?

A Yeah.

Q So, essentially, whatever units you had not requested a slot for by the middle of this year were lost to you?

A Well, they weren't lost, because we never had them.

Q Well, that's what I'm saying. I mean, you just --

A Yeah.

Q The money that was on deposit with Seimens Westinghouse, if you did not ultimately make progress payments and ultimately take delivery of that unit, would you have forfeited all that money?

A I think, the outcome of that would have been subject to negotiations. There is a risk that we might have forfeited that.

Q I'm looking now at the confidential exhibit.

And the .3 there about what would happen in case of forfeiture, your testimony is that the worst case would be that the entire amount would be forfeited?

MR. WALLS: Could I just interpose an objection to clarify that you're talking about the third point under the fourth bullet point.

MS. BROWNLESS: Oh, yes, sir. Thank you, I'm sorry.

BY MS. BROWNLESS:

Q Let me rephrase my question.

Is the worst-case option that could have happened, if you didn't go forward with regard to purchasing your 1998 unit, that you would have lost the money shown on this schedule, the complete amount?

A Well, are you talking about the 1998 unit? Because we didn't purchase that specific unit.

(PAGE 452 IS CONTAINED IN A SEPARATE CONFIDENTIAL TRANSCRIPT.)

Q And completely?

A That's absolute worst case.

COMMISSIONER JACOBS: Counsel, I think, you may want to be a little bit more careful in your questioning.

MS. BROWNLESS: I'm sorry. Excuse me.

MR. WALLS: Can we move to strike that statement in her question?

MS. BROWNLESS: Sure.

COMMISSIONER JACOBS: We can.

BY MS. BROWNLESS:

Q Then, let me re-ask my question. I promise to be correct here.

With regard to the dollar amount that's indicated in the last bullet point, is the worst-case scenario for Florida Power Corporation, if it did not, in fact, purchase the unit, the total dollar amount shown there?

A Yes.

Q Forfeiture of the total amount shown there, that's the worst case?

A Worst case.

Q Yeah. Could you turn to the second page of this exhibit, please? Before I go to the second page, I just have one other question concerning that fourth bullet point.

That was the assessment of Florida Power Corporation on the date of this memo, correct? Everything that's stated in this memo is what Florida Power Corporation believed on the date of the memo; is that correct?

MR. WALLS: Let me object to that question. She hasn't established that this witness has any knowledge of this document. I believe, he's already testified that he did not.

COMMISSIONER JACOBS: I believe he did, Ms. Brownless.

MS. BROWNLESS: Thank you.

BY MS. BROWNLESS:

Q Are you familiar with any of the information contained on the second page of this document?

A I think, in terms of factual information about the arrangement that we had with the vendor, yes.

Q If you look at the bottom right-hand corner, with regard to -- and now, I'm talking about the far right-hand corner block, okay?

A On page --

Q On the second page. And it's got four blocks of material, right?

A That's on my third page.

Q Oh, okay. I'm sorry. It's FPC 297 on the

bottom right-hand --

A I'm there.

Q Okay. Now, I'm going to look at the far right-hand --

A Yes.

Q -- block of information.

A Yes.

Q Do you agree with bullet points two and three that that's accurate?

A Bullet point one is actually -- that's a planning decision.

Q I didn't ask about one.

A Okay.

Q I asked about two and three.

A Yeah, two and three are factual.

Q Okay. And looking at the block that's in the upper left-hand corner --

A Yes.

Q -- with regard to bullet points one and two, do you agree with that information?

A Yes, I, generally, agree.

Q Okay. And the first little blurb there, the dollar figure that's in that first blurb --

A Yes.

Q -- that would be the difference between a 501-F

power block at today's prices versus the price that you had the option for?

A And when I say I generally agree, I think, there's a range of dollars that we typically reference. I'm not sure that I would agree that that's the exact amount, but it's certainly well within that range.

Q Okay. And the difference is what you could purchase at fair market prices today versus what your option allowed you to purchase?

A Yeah. It includes the equipment cost as well as payment terms and commercial terms, such as liquidated damages, and those types of considerations.

Q Okay. You may or may not be familiar with this, Mr. Major; and if you are, great, and if you're not, let me know. I'm looking at FPC 298, that's what the number says in the lower right-hand page. Do you have that page?

A I've got this. I'm not familiar with the details of this document.

Q Well, can I just point you to -- in the second little block number 4 and ask you what is meant by that statement, if you know. This question was referred to you by Mr. Crisp. That's why I'm asking.

A Number 4?

Q Uh-huh.

MR. WALLS: Let me object. I believe, that's

incorrect with respect to item number 4 in that block.

A Yeah. Number 4 would not be in my area of expertise.

BY MS. BROWNLESS:

Q Okay. So, you don't know whether this is true or not?

A I do not know if that's true or not.

Q Would you have any knowledge of number 5 in that same group of numbers?

A I would not.

Q Number 7, would you have any knowledge of that?

A Would not.

Q I'm looking now in the next block of information. On the right-hand side, unfortunately, both are numbered 1 through 7, but this little block, the first word starts with a "P." Are you with me?

A Yes, I believe so.

Q Do you agree with point number 6 with regard to the reference to Westinghouse?

A Yes, I would agree with that.

Q Okay, all right. We've previously moved into evidence and marked as Exhibit 6 -- do you have access to that exhibit? This would have been the portion of the Need Study associated with Panda's -- the nonprice evaluation of Panda's response of Section 7.

A I do not have that with me.

Q Okay. This is part of Exhibit Number 5, Mr. Crisp's testimony. It's the confidential section list of appendix items, and we had waived confidentiality with regard to item number 7, which is the evaluation of Panda's bid.

MR. WALLS: You're just referring to that part of the exhibit?

MS. BROWNLESS: Yes, sir, that's all.

BY MS. BROWNLESS:

Q It says, "confidential section list of appendix items, portion number 7, confidential FPC nonprice evaluation of Panda's bid response." Do you see that, Mr. Major?

A Is there a page number?

Q Well, my copy -- well, let me show it to you, maybe that would help. It's this. Is that it?

A Okay, yeah.

Q This gives a certain dollar value for a progress payment to be made --

MR. WALLS: Excuse me. Could I interpose an objection here. On that number, that is not a Panda number. That's our number. And we'd like to preserve the confidentiality of that number.

MS. BROWNLESS: I just said that number. I

didn't say the number.

COMMISSIONER JACOBS: We agree that it's confidential, though.

MS. BROWNLESS: That's fine.

BY MS. BROWNLESS:

Q I want to refer you to where it says, "Bidder's ability to perform and financial impact."

A Yes.

Q Okay. With regard to the number that's shown there, do you see it at the very bottom?

A Yes.

Q Okay. When was that progress payment to Seimens Westinghouse due to be made?

A Well, there was an initial payment that we had previously discussed --

Q Right.

A -- okay, that had been made, and then there's a progress payment that is in the July of 2001. And the total of the two payments approximate that number.

Q Okay. So, this would be associated only with one power block unit, the combination of the numbers that you just discussed?

A Yes.

Q As someone familiar with generation technology, would you agree that a GEF -- let me say this correctly.

GE7FA technology is roughly equivalent to 501-F Seimens Westinghouse technology?

A I would say, roughly equivalent, and from the last evaluation that we did comparing the two units there were slight differences in terms of Westinghouse having some added capacity and a slightly better heat rate. But in general terms, they're quite comparable.

Q They're competitors for the same market.

A They're competitors.

Q I want to look at going back to your self-build options schedule, your exhibit. On Line 22, initial commitment, commitment date, you have a star by that. And what does that signify?

A Yes.

Q What does that mean?

A That was when we felt we had assurances that we had a reserve production slot for the units.

Q Is that the date by which you had to tell Seimens Westinghouse you wanted the unit in order to make sure for sure you got it?

A Well, that was the date through negotiations we expected to have Westinghouse's commitment that they could deliver a unit to support the 2003 Hines 2 Unit.

Q And until you knew that information from Seimens Westinghouse, you couldn't exercise your option with

regard to it, could you?

A Well, by that time, we had already had a reservation fee. So, I'm not sure the -- that was -- again, that was the point in negotiations when we had their verbal commitment that they would reserve production slots for the time frames that we needed.

Q And was that also the point and time in which you said, yes, indeed, we want this unit?

A That was the point and time that we said we wanted those production slots.

Q And by implication, the unit?

A By implication, certainly.

Q Can I refer you to Staff production of documents response number 9, please? Do you have that available to you?

A I do not have that available.

Q The title at the top is "Supply-side Alternatives."

A Yes.

Q Okay. I'm looking now on what's been labeled at the bottom right-hand side FPC 301.

A 301?

Q Yes, sir.

A Yes.

Q And it talks about certain Westinghouse

generating alternatives; is that correct, identifies certain alternatives?

A Yes.

Q 501-FC, a 501-F, a 501-G.

A Yes.

Q And it references certain tables for the 501-FC which is the Hines number 2 unit, it references tables 28 and 29, correct?

A Correct.

Q And for the -- okay. So, if I turn to the next page, FPC 302, and I look at table 28, the price that's given there, the total capital cost in 1999 dollars would be the very first price, that would be the appropriate price to associate with that unit?

A Yes. These numbers were prepared by a consultant for our planning group, but I would concur that that's a reasonable number.

Q Okay. And if I turn to FPC 306 and I look at table number 30 where it says, "Total capital cost 1999 dollars," the number that appears there would be associated with a similar 501-FC unit you ordered today at today's prices?

A I would say that number is certainly in that range.

Q Okay. So, the difference, the actual total

capital cost savings difference would be the difference between those two numbers, between the first chart that showed your actual -- your price?

A Yeah. The purchase price difference would be that. And then, I had mentioned there may be other contract terms that could have monetary value as well, but --

Q But it would at least be the difference in those two numbers.

A Yes.

Q And if I look on those same charts and look where it says, "Total capital cost in 1999 dollars per kW," the comparison on line 2 would be an equal comparison between Line 2 of table 30 and Line 2 of table 28?

A Yes.

Q Okay. And, I think, that is -- that would be the difference in the total capital cost in dollars per kilowatt, correct?

A For what they were comparing, yes.

Q Okay.

MS. HART: If I could interrupt for a moment. Are you finished with that? I'm sorry, never mind. That was not confidential material; is that right?

MS. BROWNLESS: No.

MR. WALLS: That one was not.

BY MS. BROWNLESS:

Q Well, okay. Then, I can just ask you, that difference is about $40 million, the difference in total capital cost between your option and what would be available on the market today?

A Are you looking at table 28 and table 30?

Q Yeah. I'm looking at total capital cost 1999 dollars per kW, the difference between table 28 --

A My --

Q -- and table --

A My math may be off. I show $21 million.

Q Now, we're not talking about total capital cost --

A Oh, okay.

Q The first line.

A Well, yeah. On a dollar per kW basis, yes, $40, $40 per kW.

Q Okay. So, that's -- when you subtract the numbers out, it comes out to $39 million -- I mean, $39, but 40, 39, that's in the ballpark, right?

A Per kW, yes.

Q Per kW, okay.

MS. BROWNLESS: That's all I have. Thank you.

CROSS EXAMINATION

BY MS. HART:

Q Mr. Major, I just have a few questions. Good morning.

A Good morning.

Q It is still morning. I want to clarify a couple of things.

You made some references to, if I heard you correctly, a reservation fee. Is that the same as the down payment we were talking about?

A Yes. I think, they're probably used synonymously.

Q Interchangeably, okay. So, referring to that confidential document that everybody still has, FPC 296 is the page number.

A Yes.

Q And at bullet number 4, the figure that's discussed in there, is that the only payment that has been made?

A That is correct.

Q Okay. That's the total payment that's been made for all the equipment associated with Hines 2?

A Yes.

Q Do you know whether that's been passed through the fuel adjustment clause?

A That payment would be part of a capital work order, I believe. I can't, specifically, answer that question. Someone in our financial group would have to answer that. But, typically, it would be part of the capital work order.

Q Is there someone here that can address that question?

A I don't know if we have a witness that's familiar with that or how that's been specifically booked.

COMMISSIONER JACOBS: Counsel, would there be a witness that might be able to address that question?

A Let me explain. Typically, if a reservation fee or a down payment is made on a project, and the project goes forward, that becomes part of the capital cost of the project.

If a down payment like this were made and the project doesn't go forward, typically, it would be billed as an expense and written off in the year -- and considered as an expense in the year that it was written off in.

MS. HART: Mr. Sasso, could we perhaps get a late-filed exhibit showing where that amount has been booked?

MR. SASSO: Well, we can represent that it does not go through the fuel clause.

MS. HART: I'll repeat my question.

MR. SASSO: I'm not sure I understand what --

MS. HART: Could we see where it did go? Did it go to earnings?

MR. SASSO: We'll look into it.

COMMISSIONER JACOBS: Why don't we do this. Go ahead and designate it as a late-filed.

MS. HART: Let's call it treatment of reservation fee.

COMMISSIONER JACOBS: Very well. That's marked as Exhibit 16.

(Late-filed Exhibit 16 identified for the record.)

MS. HART: Okay.

MS. BROWNLESS: Excuse me, Commissioner, did I miss 15?

COMMISSIONER JACOBS: I show 15 as composite exhibits for Mr. Major to his testimony.

MS. BROWNLESS: Okay.

BY MS. HART:

Q Mr. Major, do you know how this payment was treated in Florida Power's cost-effective analyses performed for this case?

A I do not.

Q Okay. Mr. Major, pursuant to this contract with

Seimens Westinghouse, could Florida Power have sold its options under that contract?

A As far below market price as that option is, the vendor would have resisted selling the option. I'd say the answer is no.

COMMISSIONER JACOBS: So, that was not a unilateral option that they have some discretion over it?

THE WITNESS: There were some limitations under that option, yes.

BY MS. HART:

Q Do you know if that possibility was ever explored?

A That possibility had been discussed with Seimens Westinghouse, and we got a negative reaction from them.

MS. HART: Okay. That's all.

COMMISSIONER JACOBS: Commissioners? Redirect?

MR. WALLS: Yes, I believe, I just have a couple questions.

REDIRECT EXAMINATION

BY MR. WALLS:

Q First, Mr. Major, if I could take you back to Exhibit 6 of your prefiled, which is the schedule.

A Yes.

Q You were asked questions regarding the shading of the light blue versus the dark blue on that schedule.

It's correct that that light blue shading represents noncritical path activity while the dark blue represents critical path activity; is that correct?

A I believe that is correct.

Q You were asked several questions regarding the option that Florida Power has with Seimens Westinghouse and the time lead that would be required to get the production spots. Do you recall those questions?

A Yes, I do.

Q Are you familiar with the way that works in the marketplace with respect to any utility or other developer?

A Well, any developer, in anticipation of building a new unit, must buy quantities or reserve production slots far in advance of maybe having a defined need of where that unit is going to go in order to assure delivery to meet their in-service date.

Q And is it also fair to say, then, that Panda would also have had to do the same thing in order to bid on this project?

A I would assume they would have to do the same thing.

Q Mr. Major, if you didn't have an option on Hines 2 last year, could you realistically be able to hold the self-build up as a backstop for the ratepayers?

A In my opinion, we could not.

Q And why is that?

A Because at that time the production slots were far enough out and the price was significantly higher and I'm not sure it would have been a viable option to consider in terms of on a cost basis.

MR. WALLS: That's all the questions I have.

COMMISSIONER JACOBS: Exhibits?

MR. WALLS: Yes. I'd like to move Exhibit 15, the composite exhibit of Mr. Major's prefiled exhibits EGM-1 through EGM-6 into evidence.

COMMISSIONER JACOBS: Show exhibit 15 admitted.

(Exhibit 15 admitted into the record.)

COMMISSIONER JACOBS: Staff, Exhibit 16?

MR. WALLS: 16 is the late-filed exhibit.

COMMISSIONER JACOBS: Right, okay. Thank you, Mr. Major, you're excused.

(Witness excused.)

COMMISSIONER JACOBS: Next witness.

MS. BOWMAN: Mr. Chairman, Florida Power's next witness is W. Jeffrey Pardue. And through a stipulation between the parties and Staff, we have agreed to the admission of Mr. Pardue's prefiled testimony. And I would ask that it be admitted into the record as though read.

COMMISSIONER JACOBS: Very well. Without

objection, show that Mr. Pardue's prefiled testimony is admitted into the record as though read.

IN RE: PETITION FOR DETERMINATION OF NEED BY FLORIDA POWER CORPORATION FPSC DOCKET NO. _____

DIRECT TESTIMONY OF W. JEFFREY PARDUE

I. INTRODUCTION AND BACKGROUND.

Q. Please state your name and business address.

A. My name is W. Jeffrey Pardue, and my business address is Florida Power Corporation, One Power Plaza, 263 13th Avenue, South, St. Petersburg, Florida 33733.

Q. By whom are you employed and in what position?

A. I am employed by Florida Power Corporation ("FPC" or the "Company"), as the Director of Environmental Services.

Q. Please describe your duties and responsibilities with Florida Power Corporation.

A. As Director of Environmental Services, I am responsible for managing the Company's Environmental Services Department. The Environmental Services Department consists of separate subject matter areas, including Air Programs, Water Programs, Operations and Special Projects, Hazardous Materials Management and Site Remediation, Corporate Compliance, and Natural Resources. The

Environmental Services Department serves as the primary interface with federal, state, and local regulatory agencies and handles, among other things, all environmental siting, licensing, and permitting matters for the Company. The Department also conducts or oversees all environmental monitoring, environmental studies, and environmental impact assessments; audits environmental compliance; and provides numerous other environmental services. Among these are: air emission testing and monitoring, Prevention of Significant Deterioration ("PSD") review, Best Available Control Technology ("BACT") analysis, air quality modeling, Acid Rain compliance and reporting, Surface and Groundwater permitting and assessments, new facility siting, site certification and permitting, site remediation, and water supply analysis and permitting.

Q. Please summarize your educational background.

A. I earned a Bachelor of Science degree in Biology from Bowling Green State University. I earned a Masters of Science degree in Biology from Wright State University, and a Masters of Business Administration from the Florida Institute of Technology.

Q. Please summarize your employment history and work experience.

A. Prior to coming to FPC in 1984 I was employed by the Tennessee Valley Authority ("TVA"). I held various positions including project leader for multidisciplinary field studies siting new generation for fossil, nuclear, and hydroelectric facilities. I

prepared environmental documentation for environmental impact statements, and I designed and implemented studies to assess the impacts of power generation and transmission facilities on the environmental resources in the seven-state TVA area.

In 1984, I joined FPC as a senior environmental coordinator. Among other responsibilities, I identified wetland boundaries using the vegetation index and provided environmental input to the route site selection team for new transmission and distribution line projects. I prepared the wetland boundary data and reviewed that data with the Florida Department of Environmental Protection ("FDEP") as part of the certification application and review of the proposed Lake Tarpon-Kathleen 500kV transmission line. I also conducted scientific studies and managed environmental consultants in the conduct of various field studies and analyses. In 1987, I was promoted to supervisor of the Air & Water Programs in the Environmental Services Department. In addition to performing my supervisory responsibilities, I served as the primary point of accountability for all issues involving air quality, water quality, and wetland resource permitting. I also served on the route site selection team for transmission and distribution line site and route selection.

In 1991, I was promoted to Manager, Environmental Programs. In this position I was accountable for site selection, assessment, and permitting for power generation projects as well as transmission line projects. I managed an expanding technical staff in the areas of air quality, water quality, storage tank management, and regulatory affairs. I was responsible for overseeing the installation of

continuous emission monitors throughout the system and provided recommendations to senior management on environmental strategies and policies.

In 1994, I was promoted to my current position as Director of Environmental Services. Generally my responsibilities are described above in response to the question regarding my current position. More specifically, as it relates to this testimony, I am responsible for obtaining site certification for Hines 2 at the Hines Energy Complex ("HEC").

Q. What is your experience in power plant siting and licensing?

A. I prepared post-certification submittals for Crystal River Units 4 and 5 and negotiated amendments to the Conditions of Certification at various times over the past 15 years.

I represented the Company with respect to environmental analysis as part of the HEC site selection process. During the site certification, I was responsible for the review of air quality and water quality information and the analysis of environmental impact.

I currently am responsible for obtaining certification for Hines 2 at the HEC. This includes overall management of the project, providing technical resources, overseeing all aspects of the application preparation, handling responses to comments, meeting with regulatory agency managers, and ensuring that the certification project is completed on schedule and under budget. I will also be

responsible for meeting with and briefing Cabinet Staff with respect to the Hines 2 project.

II. PURPOSE AND SUMMARY OF TESTIMONY.

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

A. I am testifying on behalf of FPC in support of its Petition for a Determination of Need (1) to describe the HEC site, (2) to discuss the environmental benefits of the HEC site and the Hines 2 power plant that FPC proposes to build, and (3) to discuss the environmental approval process associated with the construction and operation of the Hines 2 plant.

Q. What are your responsibilities with respect to the Hines 2 power plant that is the subject of this proceeding?

A. I am responsible for preparation and submittal of the Supplemental Site Certification Application for the proposed Hines 2 power plant, which includes the application for PSD approval, obtaining the FDEP's approval of the PSD application, negotiating Conditions of Certification with the participating regulatory agencies, and obtaining certification approval from the Governor and Cabinet sitting as the Siting Board.

III. DESCRIPTION OF THE SITE AND THE PROPOSED POWER PLANT.

Q. Are you familiar with the HEC site?

A. Yes.

Q. Please describe the HEC.

A. The 8,200 acre HEC is located in an industrial section of southwest Polk County. The HEC site had been altered and disturbed by prior mining activity.

Q. Is the HEC permitted for electric power plant usage?

A. Yes. In 1994, the Governor and Cabinet, sitting as the Siting Board pursuant to the Florida Electrical Power Plant Siting Act ("PPSA"), granted certification to FPC to construct and operate Hines Unit 1 ("Hines 1") and for 3,000 megawatts ("MW") of ultimate site capacity. Similar to its proposed sister unit, Hines 2, the Hines 1 plant consists of two combustion turbines ("CTs"), each equipped with one heat recovery steam generator ("HRSG"), and a single steam turbine electrical generator ("ST"). The Siting Board specifically made a determination that the HEC had the ultimate site capacity to support 3,000 MW of electrical generating facilities fired by either natural gas or coal gasification. The original proceeding that culminated in that 1994 Certification included extensive evaluations of the worst case capacity constraints and maximum potential environmental effects of the operation of the expected 3,000 MW of capacity. These evaluations included assessments of air quality impacts,

water quality and wildlife impacts, water use and noise impacts, socioeconomic impacts and benefits, traffic impacts from construction and operation, and other impacts of the entire planned capacity of 3,000 MW. This evaluation was undertaken, in large measure, to provide assurances that the HEC has adequate air, water, and land resources to accommodate additional electrical generating units like those proposed in the current Supplemental Site Certification Application ("SSCA"). Confirming the Polk County Board of County Commissioners' finding, the Siting Board also concluded that the HEC was consistent and in compliance with the land use plans and zoning requirements of Polk County.

After receiving the Certification, FPC constructed the 470 MW (nominal) Hines 1 plant. Hines 1 began commercial operation in April 1999.

Q. Are you familiar with the proposed Hines 2 plant?

A. Yes.

Q. Please briefly describe the proposed plant.

A. The Hines 2 power block will be a state-of-the-art gas-fired, combined cycle power plant with a nominal rating of 530 MW. FPC will build the plant at the HEC. The Company proposes to place the plant into commercial operation by November 30, 2003. The plant will use distillate oil as a backup fuel source. The plant will be a highly efficient, intermediate or baseload unit with a heat rate of 6,975 Btu/kWh.

Q. What environmental permits are necessary for the construction and operation of the proposed Hines 2 plant?

A. Although the Company has previously obtained Site Certification from the Florida Siting Board for an ultimate capacity of 3,000 MW at the HEC and for the construction and operation of Hines 1, the proposed addition of Hines 2 requires the approval of a Supplemental Site Certification Application ("SSCA"). Pursuant to the requirements of the PPSA and Chapter 62-17, F.A.C., FPC has submitted a SSCA for the purpose of building Hines 2. This SSCA will be reviewed by state agencies, the water management district, local government, and others. After extensive review, a DOAH administrative law judge will issue an order recommending approval or denial to the Governor and Cabinet, sitting as the Siting Board. If approval is recommended the FDEP will also recommend Conditions of Certification as part of the Siting Board's approval. Ultimately the Governor and Cabinet will issue or deny Site Certification considering the need for power balanced with the expected environmental impacts.

Q. What information does FPC's Supplemental Site Certification Application include?

A. The SSCA addresses the environmental and socioeconomic aspects of the additional generating unit at the HEC by presenting information on the existing natural and human environments, the additional generating facilities proposed to be constructed and operated, and the impacts of those additional facilities on those environments.

Much of the information contained in this SSCA is updated information from the Site Certification Application filed in 1992 (the "1992 SCA") for Hines 1 and ultimate site certification for the HEC, with a focus on the environmental impacts of the construction and operation of Hines 2. Similar to Hines 1, Hines 2 will consist of two combustion turbines ("CTs"), each equipped with one heat recovery steam generator ("HRSG"), and a single steam turbine electrical generator ("ST"). Existing and previously permitted infrastructure, including fuel delivery and storage facilities, electrical transmission lines, potable water, wastewater treatment/disposal, and transportation facilities at the HEC are adequate with some minor enhancements for the operation of Hines 1 and 2.

IV. ENVIRONMENTAL BENEFITS OF THE SITE AND THE PROPOSED PLANT.

Q. What environmental benefits do the HEC and the proposed plant offer?

A. The HEC and proposed plant offer several environmental benefits. First, Hines 2 will be located at the HEC, an existing power plant site. The HEC continues to represent a beneficial reuse of an environmentally impacted mined-out phosphate area and was specifically selected as a power plant site because of its minimal environmental impact. As such, there were and are no major environmental limitations. Most, if not all, of the environmental issues associated with the site were resolved when Hines 1 was certified. Accordingly, Hines 2 requires only a

supplemental application and review that will require less time, and, as an additional benefit, it will cost less to obtain the necessary environmental approvals.

Because the Florida Siting Board approved the HEC for up to 3,000 MW and given that the Company previously developed the property for the Hines 1 plant, little additional development is necessary for Hines 2. In fact, the principal infrastructure is already in place, including extensive site development (excavation, fill, access roads, sewer systems), a 722 acre cooling pond, and a fully sized natural gas lateral pipeline. Most other common facilities, such as the site administration building including the control room, will require only minor modifications. There will be some minor incremental increase in staffing. In addition, all onsite distillate oil delivery, storage, and handling facilities, including unloading areas, piping, and storage tank systems, and the containment tanks are in place and adequate for Hines 1 and 2. The existing on-site cooling pond provides circulating water for cooling of the plant auxiliary systems and steam turbine condenser.

The HEC's large size also provides a substantial buffering of the proposed plant, which minimizes environmental and socioeconomic impacts. The HEC is located in a low population density area not close to any residential areas and is zoned to accommodate electrical power plants.

FPC will enhance the wildlife corridor, which was acquired with FPC funds during the initial certification, by conveying the Tiger Bay wetland to the state and by granting a conservation easement over approximately 1,000 acres on the eastern and northeastern areas of the property.

Vehicular access is provided by County Road 555 ("CR 555"), with rail access provided by existing CSX rail lines, including an on-site rail spur. FPC completed a traffic impact analysis to assess traffic impacts for the construction and operation of the full build-out of the HEC (3,000 MW) on Polk County roadways. Conditions of Certification addressing those impacts were included in the 1994 Certification. Area roadways have capacity to accommodate traffic from construction and operation of Hines 2 as previously demonstrated.

The existing Certification also minimizes potential impacts on water and air quality. Under the terms of the original Site Certification, the facility is designed for zero discharge of industrial wastewater to off-site surface waters. Process wastewater streams are treated on-site and are used as makeup for the cooling pond. The major consumption and/or loss of water occur through evaporation from the cooling pond, both natural and from heat rejected by the Combined Cycle units. The proposed Hines 2 plant will utilize treated effluent and storm water for cooling with no discharge offsite.

Under the 1994 Certification, FPC is required to secure alternative sources of water, rather than use groundwater, for makeup cooling water for the first 940 MW of generation except, if approved by the Southwest Florida Water Management District ("SWFWMD"), in case of emergency. Reclaimed water from the City of Bartow, on-site storm water runoff and water cropping (use of onsite rainfall collection basins), and reuse of process water will be used to provide makeup water to the cooling pond during operation of Hines 1 and 2.

The Company is also conducting research on a new project, the Aquifer Recharge and Recovery Project ("ARRP"). This project, along with other initiatives the Company is investigating, may serve to lessen future ultimate site demands for groundwater withdrawal.

The existing site storm water management system (detention pond) is located within the Plant Island area. This system is adequate for Hines 1 and 2 and provides overflow to the onsite cooling pond. Ground water is currently used only to meet the potable and sanitary needs of the facility.

In accordance with the existing Conditions of Certification, in order to enhance flows to Camp Branch and McCullough Creek (and ultimately to the Peace River), FPC has modified the drainage systems onsite and offsite in order to contribute runoff to these surface water systems. No changes to these enhanced flows are required for Hines 2.

Air emission control will be achieved using the best available control technology. Selective catalytic reduction ("SCR") technology will be used to control nitrogen oxide (NO_x) emission levels while firing natural gas. While firing distillate oil as a backup, water injection along with SCR will be used to limit NO_x levels. The combustion of clean fuels to minimize sulfur dioxide (SO_2) and particulate matter emissions is accomplished by burning fuels low in ash and sulfur content in conjunction with good combustion practices to ensure complete combustion. These technologies will ensure compliance with applicable air quality standards.

Finally, noise impacts from the full 3,000 MW site were assessed for several residential receptors around the HEC as part of the 1994 Certification. Fractional noise increases observed at any nearby residential receptor will not be noticeable or significant. The isolated location and buffer area around the HEC results in the lack of a significant noise impact.

Q. What is the licensing schedule for the Hines 2 plant?

A. FPC filed the SSCA with the FDEP on July 24, 2000, which will allow for the commencement of commercial operations by November 30, 2003.

V. CONCLUSION.

Q. Do you have an opinion with respect to the ability of the Company to obtain all necessary licenses to allow for commercial operation by November 30, 2003?

A. Yes.

Q. What is your opinion?

A. Based on our review and analysis, it is my professional opinion that certification of the Hines 2 plant should be approved by the Governor and Cabinet and the PSD permit issued by FDEP in a timely fashion and in accordance with all applicable environmental laws and regulations.

Q. Are you aware of any reason that the Hines 2 plant could not be successfully approved?

A. No.

Q. Does this conclude your direct testimony?

A. Yes.

COMMISSIONER JACOBS: He had no exhibits, correct?

MS. BOWMAN: That's correct.

COMMISSIONER JACOBS: Great.

Mr. O'Neill.

MS. BOWMAN: Yes, Florida Power's next witness would be Peter M. O'Neill. And, Mr. Chairman, again, the parties and Staff have stipulated to the admission of Mr. O'Neill's prefiled testimony, and we ask that it be admitted into the record as though read.

COMMISSIONER JACOBS: Without objection, show prefiled testimony of Mr. O'Neill is admitted into the record as though read.

IN RE: PETITION FOR DETERMINATION OF NEED BY FLORIDA POWER CORPORATION FPSC DOCKET NO. _____

DIRECT TESTIMONY OF PETER M. O'NEILL

I. INTRODUCTION AND QUALIFICATIONS.

Q: Please state your name, your employer, and business address.

A. My name is Peter M. O'Neill. I am employed by Florida Power Corporation ("FPC" or the "Company"). My business address is Florida Power Corporation, 6565 38th Avenue, North, St. Petersburg, Florida, 33710.

Q. What is your position with the Company?

A. I am a Staff Engineer in the Company's Transmission Planning Department.

Q. Please tell us about your educational background and work experience.

A. I received a Bachelors Degree in Electrical Engineering from Virginia Polytechnic Institute and State University in 1968 and a Masters of Business Administration from the Florida Institute of Technology in 1978.

I was employed by Columbus and Southern Ohio Electric Company in the Transmission Design Department from 1968 to 1973. Since 1973, I have been employed by FPC in various planning and engineering design positions, including almost eighteen years in the Company's Transmission Planning Department.

Currently, I am responsible for planning FPC's bulk transmission system, overseeing work associated with determining FPC's transmission transfer capability.

Q. Are you a member of any professional organizations?

A. Yes. I am a member of the Institute of Electrical and Electronic Engineers. I am also the Florida Reliability Coordinating Council's ("FRCC") representative on the North American Electric Reliability Council ("NERC") Reliability Assessment Committee, which is responsible for assessing the reliability of the North American Electric Grid. I further serve on the FRCC Compliance Working Group, which is responsible for developing a compliance program for, and monitoring compliance with, the NERC Planning Standards. I am a Registered Professional Engineer in the State of Florida, and have been since 1974.

II. PURPOSE AND SUMMARY OF TESTIMONY.

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

A. I am testifying on behalf of FPC, in support of its Petition for Determination of Need, by describing FPC's existing transmission and distribution facilities and describing and explaining the need for the transmission facility additions and upgrades required by the addition of the Hines 2 unit at the Hines Energy Complex ("HEC") in November 2003.

Q. Are you sponsoring any sections of FPC's Need Study, Exhibit ___, (JBC-1)?

A. Yes. I am sponsoring Section II, C, "Transmission and Distribution Facilities," which generally identifies FPC's current transmission and distribution facilities, and Sections VII, F, "Transmission Requirements" and VII, H. 4., "Transmission Interconnection Facilities," which describe the transmission facility additions, upgrades, and costs associated with the addition of the Hines 2 unit at the HEC.

Q. Are you sponsoring any exhibits to your testimony?

A. Yes. I am sponsoring the following exhibits to my testimony:

PMO-1 **Map of FPC's Existing Generation Plants, Substations, and Transmission Lines.**

PMO-2 **Map of Transmission Network in the Vicinity of the Hines Energy Complex.**

Q. Please give us a summary of your testimony.

A. In part III of my testimony, I generally describe the Company's existing transmission and distribution facilities. I am supporting this information in the Company's Need Study for the Hines 2 plant at the HEC.

In part IV, I turn to the transmission facility additions and upgrades that the Company has determined are needed with the proposed addition of the Hines 2 plant at the HEC in Polk County, Florida. I will describe those additions and upgrades and explain the need for them.

III. FPC'S TRANSMISSION AND DISTRIBUTION FACILITIES.

Q. Can you generally describe the Company's current transmission and distribution facilities?

A. Yes. FPC owns approximately 4,700 miles of transmission lines and over 80 transmission substations. FPC's distribution system includes over 25,000 circuit miles and over 270 distribution substations. FPC has 54 points of interconnection with other utilities within its transmission system, and it is part of a nationwide interconnected power network. The existing FPC system in the State of Florida, including generating plants, substations, transmission lines and service area, is shown on the system map in Exhibit __ (PMO-1).

IV. HINES 2 TRANSMISSION FACILITIES.

Q. Are any transmission facility upgrades or additions required in connection with the addition of the Hines 2 plant at the HEC to FPC's system?

A. Yes. Based on my evaluation of the addition of the Hines 2 plant to FPC's system for compliance with FPC's transmission planning criteria and sound transmission engineering practice in the utility industry, I have determined that the following transmission facility upgrades or additions are required as shown on Exhibit ____ (PMO-2).

(1) The existing Hines Energy substation must be expanded by adding one more 230kv substation bay to accommodate additional substation terminations, in particular, a second Hines-Barcola 230kv transmission circuit.

(2) To connect Hines 2 to the transmission grid, a second circuit must be added to the existing Hines-Barcola 230kv line. This additional transmission capacity, which the Siting Board certified in 1994, will be required when both Hines 1 and Hines 2 are on line. The Hines-Barcola 230kv, circuit 1 is currently constructed on double circuit, steel pole structures for 3.1 miles between FPC's Hines Energy substation and FPC's Barcola substation. A second, 3.1 mile circuit is proposed to be installed on the existing steel pole structures with the addition of Hines 2 using bundled 954 kcm ACSR conductor per phase.

(3) The existing single circuit, 3.97 mile, 230kv transmission interconnection between FPC's Barcola substation and Tampa Electric Company's ("TECO") Pebbledale substation must also be upgraded to accommodate the projected power flow following the addition of Hines 2 and other planned, non-FPC units to the transmission grid. FPC proposes to replace the existing single circuit structures with new double circuit, steel pole structures and upgrade the conductor on the existing circuit from single 954 kcm ACSR conductor to bundled 954 kcm ACSR conductor per phase. FPC and TECO will be negotiating the upgrade of this interconnection in the year 2000, with the final scope and responsibility for the work on this upgrade finalized by a Transmission Interconnection and Operating Agreement between FPC and TECO.

Q. Can you generally explain the process by which you determined that transmission facility upgrades and additions were required with the addition of Hines 2 to FPC's system at the HEC?

A. Yes. On a yearly basis, the FPC Transmission Planning Department reviews the transmission facility additions or upgrades required on the FPC transmission system based on the latest FRCC load flow cases. These load flow cases reflect the planned generation additions as proposed in each utility's Ten-Year Site Plan ("TYSP") as filed April 1 of each year, including FPC's TYSP showing its proposed generation additions. Since 1997, FPC has included Hines 2 in its TYSP and the FRCC load flow cases have included a Hines 2 unit as a result.

Based on the FRCC load flow cases, FPC's Transmission Planning Department performs load flow analyses and determines the need for transmission facility additions or upgrades based on meeting FPC's "Transmission Planning Reliability Criteria," Section 4 as filed on FERC Form No. 715 "Annual Transmission Planning and Evaluation Report." This ongoing analysis of the FPC transmission system based on the latest FRCC load flow cases and FPC planning criteria has identified the need for a Hines-Barcola 230kv circuit 2 line and an upgrade of the existing Barcola-Pebbledale 230kv interconnection for several years.

Q. Why does the Hines Energy 230kv substation need to be expanded for Hines 2?

A. To accommodate the Hines 2 power block connection to the transmission grid and to provide a substation termination for the Hines-Barcola 230kv, circuit 2 addition, the

Hines Energy substation must be expanded by adding one more 230kv substation bay to provide two additional substation terminations.

Q. Why is there a need for an additional 230kv circuit from FPC's Hines Energy substation to FPC's Barcola substation?

A. With the addition of the proposed Hines 2 unit at the HEC in November 2003, the projected, total net generation at the HEC with Hines 1 and 2 will be 977 MW in the summer and 1,096 MW in the winter. There are three existing 230kv transmission circuits from the HEC that were installed in connection with the Hines 1 unit — two circuits to FPC's Fort Meade substation and a single circuit constructed on double circuit structures to FPC's Barcola substation. With the proposed addition of Hines 2 in November 2003, a forced outage of the existing Hines-Barcola 230kv, circuit 1 (3.1 miles) could thermally overload the existing FPC Fort Meade-West Lake Wales 230kv line under certain operating conditions in violation of FPC's transmission planning criteria. Accordingly, the addition of a second circuit to the Hines-Barcola 230kv line is required to alleviate this potential contingency overload situation.

Q. Why is there a need to upgrade the Barcola-Pebbledale 230kv line?

A. The loading on the existing, single circuit, Barcola (FPC) to Pebbledale (TECO) 230kv interconnection is affected by the generation additions at the HEC, Seminole Electric Cooperative, Inc.'s Payne Creek Plant, and TECO's Polk Plant. All three utilities are planning to add generation at these sites in the 2000/04 timeframe. In FPC's transmission planning studies, by the winter of 2003/04, a forced outage of

the existing FPC Fort Meade-West Lake Wales 230kv (19.87 miles) circuit will overload the Barcola-Pebbledale 230kv interconnection in violation of FPC's transmission planning criteria. Accordingly, an upgrade of the Barcola-Pebbledale 230kv line is required to alleviate this potential contingency overload situation.

Q. Has the transmission facility addition for the Hines 2 unit at the HEC been authorized by the Florida Siting Board?

A. Yes. The Hines-Barcola circuit 2 addition required for the connection of the Hines 2 unit with FPC's transmission system was authorized and licensed as an "associated facility" in the Certification of the HEC by the Governor and Cabinet, sitting as the Florida Siting Board, in 1994.

Q. How much will the transmission facility upgrades and additions for the Hines 2 unit cost?

A. All of the transmission facility additions and upgrades that I have described together will cost FPC an estimated $5.6 million. This is the amount listed for transmission facility additions or upgrades in item 11 in Attachment D to FPC's Request for Proposals, Appendix P (JBC-1).

V. CONCLUSION.

Q. In your opinion, are the transmission facility upgrades and additions that you have described for the addition of the Hines 2 plant to FPC's system reasonable?

A. Yes. In my professional judgment, and based on my experience and evaluation of the impact of adding the Hines 2 unit to FPC's system, these transmission facility upgrades and additions are what will be reasonably required to accommodate the addition of the Hines 2 unit to the FPC transmission system by November 2003.

Q. Does this conclude your testimony?

A. Yes.

MS. BOWMAN: In addition, Mr. O'Neill's testimony attaches two exhibits PMO-1, PMO-2. Florida Power would ask that that now be marked and admitted into evidence as composite Exhibit Number 17.

COMMISSIONER JACOBS: Very well. Show that marked as Exhibit 17.

MS. BOWMAN: And we'd ask that they be admitted as well.

COMMISSIONER JACOBS: They are admitted.

(Exhibit 17 marked for identification and admitted into the record.)

COMMISSIONER JACOBS: Very well. Thank you.

MR. SASSO: We have no additional exhibits as part of our case in chief. We do have two rebuttal witnesses, who we had arranged to testify in response to Mr. Dickens' testimony who, I believe, would be next up.

COMMISSIONER JACOBS: Very well. Staff, you may call your witness.

MS. BOWMAN: Mr. Chairman, if I could just briefly ask that we be able to collect the confidential materials.

(Confidential materials collected.)

COMMISSIONER JACOBS: Ready? Call your witness, Staff.

MS. HART: Okay. Staff calls Billy Dickens.

COMMISSIONER JACOBS: It occurs to me we may be engaging in cross for some period of time here.

MR. SASSO: That's correct.

COMMISSIONER JACOBS: Why don't we go ahead and break for lunch now, and we'll come back at 12:30. Sorry to get your hopes up, Mr. Dickens, but we'll break for lunch now and come back at 12:30.

(Transcript continues in sequence in Volume 5.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

I, KORETTA E. STANFORD, RPR, Official FPSC Commission Reporter, do hereby certify that Volume 4 in Docket Number 001064-EI was heard by the Florida Public Service Commission at the time and place herein stated.

It is further certified that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript, consisting of 184 pages, constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED this 1st DAY OF NOVEMBER, 2000

Koretta E. Stanford

KORETTA E. STANFORD, RPR
FPSC Official Commission Reporter
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