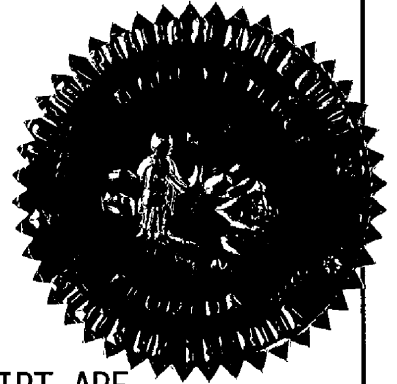


BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 020953-EI

In the Matter of

PETITION TO DETERMINE NEED FOR  
HINES UNIT 3 IN POLK COUNTY BY  
FLORIDA POWER CORPORATION.



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VOLUME 1

PAGES 1 THROUGH 200

PROCEEDINGS: HEARING

BEFORE: COMMISSIONER J. TERRY DEASON  
COMMISSIONER BRAULIO L. BAEZ  
COMMISSIONER RUDOLPH "RUDY" BRADLEY

DATE: Tuesday, December 3, 2002

TIME: Commenced at 9:45 a.m.  
Concluded at 5:00 p.m.

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

REPORTED BY: JANE FAUROT, RPR  
Chief, Office of Hearing Reporter Services  
FPSC Division of Commission Clerk and  
Administrative Services  
(850) 413-6732

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## 1 APPEARANCES:

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4 appearing on behalf of Florida Power Corporation.

5 JON MOYLE, JR., Moyle Law Firm, The Perkins House,  
6 118 North Gadsden Street, Tallahassee, Florida 32301, appearing  
7 on behalf of Florida Partnership for Affordable Competitive  
8 Energy.

9 LAWRENCE D. HARRIS, FPSC General Counsel's Office,  
10 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850,  
11 appearing on behalf of the Commission Staff.

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COMMISSIONER DEASON: Call the hearing to order.  
Could I have the notice read, please.

MR. HARRIS: Pursuant to notice published October 17th, 2002, this time and place has been set for a final hearing in Docket Number 020953-EI, petition to determine need for Hines Unit 3 in Polk County by Florida Power Corporation. The purpose of the hearing has been set out in the notice.

COMMISSIONER DEASON: Appearances.

MS. SELLERS: Cathy Sellers with the Moyle Flannigan law firm on behalf of PACE.

MR. MOYLE: John Moyle, Jr., also with the Moyle Flannigan law firm appearing on behalf of PACE. With me is the client representative, Mr. Mike Green.

MR. SASSO: Gary Sasso for Florida Power Corporation.

MS. BOWMAN: Jill Bowman for Florida Power Corporation.

MR. HARRIS: Lawrence Harris and Marlene Stern appearing for the Commission.

COMMISSIONER DEASON: Mr. Harris, are there any preliminary matters we need to address?

MR. HARRIS: None that I am aware of, Commissioner.

COMMISSIONER DEASON: Do the parties have any preliminary matters. Mr. Moyle?

MR. MOYLE: PACE has none.

1 COMMISSIONER DEASON: Mr. Sasso?

2 MR. SASSO: None.

3 COMMISSIONER DEASON: Very well. I, in reviewing the  
4 prehearing order, had indicated that if there were to be  
5 opening statements, they would be limited to ten minutes. I  
6 guess the question is do the parties intend to make opening  
7 statements. Mr. Moyle.

8 MR. MOYLE: PACE has prepared a brief opening  
9 statement and would like an opportunity to present it.

10 COMMISSIONER DEASON: Mr. Sasso, are you prepared?

11 MR. SASSO: Yes, sir.

12 COMMISSIONER DEASON: And within the ten-minute time  
13 frame?

14 MR. SASSO: I believe so.

15 COMMISSIONER DEASON: Very well. Yes, Commissioner.

16 COMMISSIONER BRADLEY: (Inaudible. Microphone not  
17 on.)

18 COMMISSIONER DEASON: Is your microphone on,  
19 Commissioner?

20 COMMISSIONER BRADLEY: Yes. I would respectfully  
21 request that we adhere to all the time frames so that the  
22 testimony can remain condensed and concise.

23 COMMISSIONER DEASON: I think that is a good  
24 observation. I think the prehearing order indicates that  
25 witnesses are to have their summaries limited to five minutes

1 or less. And so, Mr. Sasso, you hear a second request that  
2 that be maintained. I think there was some direction given by  
3 the Chairman yesterday concerning the conduct of this hearing.  
4 I think that was wise advice. We will try to adhere to that.

5 The issues are set out in the prehearing order, we  
6 will abide by those issues. I would expect cross-examination  
7 to be within the confines and focus on those issues. If there  
8 are to be exhibits, I ask that they be distributed quickly and  
9 efficiently and that we will go through the process of  
10 identifying those. And if there are confidential exhibits,  
11 there are certain procedures that need to be followed with  
12 those exhibits, as well.

13 I ask if there are objections that are to be made  
14 that they be made concisely and they will be ruled upon  
15 quickly. I think that pretty much covers things. We have a  
16 lot of ground to cover. I think it is the intent of the  
17 Commission to get as much covered today as possible. I have  
18 even discussed with staff counsel that it is a possibility,  
19 there is a belief that this hearing could be concluded within  
20 one day. And so that is a goal that we all may want to try to  
21 achieve. If possible. I mean, certainly everybody has their  
22 due process rights and we are not going to violate those.

23 With that I believe we will begin with opening  
24 statements. Mr. Sasso.

25 MR. SASSO: Thank you, Commissioner Deason.

1           Good morning. We believe that this is a  
2 straightforward case. As demonstrated by the company's  
3 ten-year site plan filings, the company has been projecting for  
4 some time that it will need to add power blocks like Hines 3 in  
5 order to keep up with load growth throughout the rest of this  
6 decade, beginning actually with Hines 2 in 2003 and putting  
7 power blocks on the ground similar to Hines 3 almost every  
8 other year through the end of the decade. Without Hines 3,  
9 Florida Power's reserve margin would decline from the agreed 20  
10 percent in the winter of 2005/2006 down to 17 percent, then  
11 down to 14 percent the following year, and it would continue to  
12 fall. So the company needs to build Hines 3 in order to  
13 maintain system reliability.

14           Now, PACE has questioned the company's need to meet  
15 its 20 percent reserve margin planning criterion and the  
16 Commission has rejected that contention in the recent FPL need  
17 case. And as the Commission is well aware, the company has  
18 made a solemn commitment to this Commission to maintain  
19 planning reserves at that level to meet the Commission's  
20 concern about the adequacy of the company's reserves and the  
21 adequacy of reserves in Peninsular Florida.

22           The company needs to build Hines 3 not only to  
23 improve the quantity of its reserves but also the quality.  
24 Reserve margins measure the company's ability to serve firm  
25 load through firm power resources and, of course, the company



1 can manage the amount of firm load through demand-side  
2 management, but that has limits as we have experienced in the  
3 past. When the company has to go to demand side programs for  
4 extended periods of time or too often, we have customer  
5 attrition from those programs. So the company is anxious to  
6 add firm generating resources to its system in order to ensure  
7 that it will have enough firm resources to cover an unplanned  
8 outage of the company's largest unit, which would be  
9 accomplished by building Hines 3.

10           The company has selected Hines 3 as its next planned  
11 generating unit based on a careful review of self-build options  
12 and then after issuing an RFP and considering proposals by  
13 third-party power suppliers. And Hines 3 proved to be the best  
14 choice by a very comfortable margin. Our analysis shows that  
15 Hines 3 beats the next best proposal which was a system power  
16 proposal by \$92 million, and the next best greenfield proposal,  
17 a new plant, by at least \$187 million without considering  
18 imputed debt. If the company had made an equity adjustment the  
19 gap would be even wider. So for these reasons we believe that  
20 this is a straightforward case and certainly would have been.

21           Now PACE has intervened and has raised a number of  
22 issues, advising us yesterday in its prehearing statement, and  
23 I would like to briefly address the evidence on these issues.  
24 PACE is not arguing that any of its members actually offered  
25 the company a superior proposal. Rather it is criticizing the

1 company's project and process. First, PACE asserts that SWFWMD  
2 has raised a preliminary objection to emergency water  
3 consumption for Hines 1 and Hines 2, and somehow this warrants  
4 rejection of Hines 3's need petition.

5 Well, to begin with this concerns a matter that is  
6 unrelated to Hines 3. SWFWMD has raised a preliminary  
7 objection in an unrelated docket concerning Hines 1 and Hines  
8 2, and that preliminary objection will be addressed and  
9 resolved in due course. That was not raised in the docket in  
10 which the supplemental site certification application for Hines  
11 3 is proceeding forward. And the water issues are different  
12 for Hines 3 because in the 1994 site certification provided on  
13 the Hines Energy Complex, the siting board anticipated that  
14 Hines 3 would need to draw groundwater and authorized that use.  
15 So the company has the permit it needs for Hines 3 water. This  
16 is a nonissue in this case, therefore.

17 PACE has also suggested that the company has  
18 identified different heat rates in its ten-year site plan and  
19 in the need study in this case. And, yes, there are different  
20 numbers as you will see, but one is an average and one is a  
21 full load heat rate, so there is no conflict there.

22 PACE indicates in its prehearing statements that it  
23 intends to assert that the company's combustion turbines will  
24 not comply with FRCC guidelines concerning underfrequency  
25 events, but this is not accurate. The company has received

1 assurances from the manufacturer that the turbines will comply  
2 before the plant is in service, and the company commits to this  
3 Commission that the turbines will be compliant before Hines 3  
4 is connected to the grid.

5 PACE also asserts that the company has failed to  
6 allocate an appropriate portion of costs of the infrastructure  
7 of the Hines Energy Complex to Hines 3, but the infrastructure  
8 cost at the Hines Energy Complex are sunk costs. And when  
9 choosing a new power resource the company is obliged to  
10 consider the cost impact of that resource on its customers.  
11 How much is the new resource going to cost its customers, which  
12 is what it has done here. It is an incremental cost analysis,  
13 and Hines 3 has proved to be the clear winner.

14 PACE has also suggested that the company should have  
15 opted for short-term contracts to meet its need. But the  
16 company's need, as I have explained, is a long-term need  
17 extending at least 25 years, and this Commission has made clear  
18 to the utilities that they cannot rely on unspecified purchases  
19 in lieu of true planning. And the company has engaged in that  
20 planning, has identified its plans in its ten-year site plan  
21 filings, and its analysis in this case proves conclusively that  
22 Hines 3 is the most cost-effective resource to meet its true  
23 long-term need.

24 PACE has suggested in its prehearing positions that  
25 the company has applied criteria in its analysis not used in

1 the RFP, or not identified in the RFP. And we have asked for  
2 clarification of that and none was provided, and so we are not  
3 certain what the contention is, but the evidence is going to  
4 show that the company gave clear notice of the criteria it was  
5 going to use, and that is, in fact, what the company did use.

6 Finally, PACE has contended that the company must be  
7 held to the numbers in its cost estimates for all regulatory  
8 purposes if the petition for need is granted, but we would  
9 suggest that this is an argument that PACE needs to make later  
10 in the week at the bid rule hearings. It calls upon the  
11 Commission to change the regulatory compact where in exchange  
12 for accepting a regulated rate of return the company is  
13 entitled to cost recovery for all costs prudently incurred, and  
14 that is not an appropriate issue for this proceeding.

15 At the end of the day we are confident that Hines 3  
16 is the best choice for the company's customers by a very wide  
17 margin and that this Commission will so conclude. Based on the  
18 evidence you will hear today and possibly tomorrow, we will  
19 respectfully ask that the Commission approve our petition for  
20 determination of need.

21 COMMISSIONER DEASON: Thank you.

22 Mr. Moyle.

23 MR. MOYLE: Thank you. Again, Jon Moyle appearing on  
24 behalf of PACE. PACE is a trade association representing a  
25 number of independent power producers, or IPPs, as that term is

1 commonly used, who bid in response to Florida Power  
2 Corporation's RFP. PACE has intervened in this proceeding and  
3 has taken positions on all issues except one and that position  
4 that -- the issue we did not take a position on is conservation  
5 steps taken.

6           There is a few key points that I wanted to bring to  
7 the Commission's attention as they are going to be hearing  
8 testimony on these and Mr. Sasso hit on some of them during his  
9 opening statements. But before I do, I want to just make a  
10 point with respect to the concept that no PACE member is here  
11 arguing that they submitted a superior bid. And obviously with  
12 respect to the evidence that you will hear, there are a lot of  
13 open questions that still remain from PACE's viewpoint.

14           And Mr. Sasso talked about water. One of the key  
15 issues in this case we believe is water. Florida Power Corp  
16 contends that they have an adequate source of water. We will  
17 show you documents that call into question whether that source  
18 of water is indeed adequate. There are a number of conditions  
19 to approval of the use of water that must be met, and these  
20 conditions include going and seeing if you can find reuse water  
21 in the area. There are reuse capabilities that are in the area  
22 that can be used that are a condition of the permit that we  
23 believe in accordance with the permit that Florida Power  
24 Corporation is going to have to demonstrate that they need to  
25 use these or show why they shouldn't use these. And if it is

1 subsequently determined that they have to go use these reuse  
2 sources, it is going to add significant cost to the project.  
3 You are going to have to go procure the water, you are going to  
4 have to build pipelines to bring the water, and so part of it  
5 is an open question in that we do not believe there is  
6 sufficient evidence to show that the Hines 3 Unit is the most  
7 cost-effective.

8           You are also going to hear evidence about the  
9 evaluation of the bids and what factors that they took into  
10 consideration. Florida Power Corporation set forth the RFP  
11 document, but you will see that there were factors considered  
12 that were not part of that RFP document that indeed found its  
13 way into evaluation reports that looked at proposals we believe  
14 with an eye toward how they would impact Florida Power  
15 Corporation's position in a competitive market.

16           Now that should not be a factor in any analysis of  
17 the most cost-effective alternative. If we do a contract with  
18 Bidder X is that going to open the door for them to come into  
19 the market and be a player in this market? We will show you  
20 evidence where that, we contend, was a consideration and that  
21 should not have been used.

22           We will also show you evidence that we believe points  
23 out that there is a different yardstick used when measuring the  
24 Hines 3 proposal against the other bidders. And one of this  
25 relates to fuel transportation cost. You will hear from

1 Florida Power Corporation's witnesses about fuel transportation  
2 costs where having in place a firm agreement for fuel  
3 transportation is considered a key factor. And indeed they  
4 even say that they wouldn't suggest entering into any contract  
5 with an IPP without a firm fuel transportation contract. Yet  
6 when it came time to rank all of the proposals on fuel  
7 transportation, even though Florida Power Corporation does not  
8 have a firm fuel transportation cost contract, they ranked  
9 themselves first.

10           One of the key issues in this case that really is  
11 probably a pivotal issue is somewhat of a technical issue, and  
12 it relates to an underfrequency issue. And you are going to  
13 hear some discussion about this underfrequency issue. What  
14 this relates to is that the Florida Reliability Coordinating  
15 Council has put forth certain reliability standards, and we  
16 will introduce into evidence those reliability standards.

17           One of these standards relates to underfrequency.  
18 And in order to maintain the grid, the FRCC has certain  
19 underfrequency standards. The Hines 3 Unit as proposed is not  
20 presently warranted to operate at the underfrequency standards  
21 set forth by the FRCC. So this presents really a Catch-22 for  
22 Florida Power Corporation. They can either agree with the FRCC  
23 that they will operate their units in accordance with their  
24 reliability standards, which has the result, we contend, of  
25 calling into question the warranty of the manufacturer, or they

1 can operate in accordance with the warranty of the manufacturer  
2 but then not in accordance with the FRCC reliability  
3 guidelines.

4           Now, Mr. Sasso indicated that they would commit to  
5 you to not connect to the grid until this issue was sorted out.  
6 But we would contend that this issue needs to be sorted out  
7 prior to a hearing. Because one of the issues you all will  
8 have to consider is reliability and cost-effectiveness. And if  
9 this underfrequency issue is not resolved satisfactorily -- I  
10 think you will hear that there is some tests ongoing in  
11 Germany, the results aren't supposed to come in until the  
12 spring -- that if this is not resolved satisfactorily to  
13 Florida Power Corporation they are going to have machines and  
14 begin a project that can't be connected to the grid. So that  
15 is a real key issue that we would suggest makes this case  
16 really not even ripe for determination until that critical  
17 issue gets sorted out. And we would suggest that deferring a  
18 decision on this issue until you have good concrete firm  
19 evidence about this underfrequency issue is the wise decision.

20           We think that you can safely not make this decision  
21 and defer a ruling because their witnesses will testify that  
22 they don't have a big concern about losing firm load, about  
23 providing reliable service based on a 15 percent reserve  
24 margin. They said that without Hines 3 you are going to have a  
25 17 percent reserve margin in '05 and '06, that is two percent



1 above the current reserve margin that is used for planning  
2 purposes as I understand it in the State of Florida. And this  
3 state, I think you will hear, has done well over the past years  
4 with a 15 percent reserve margin. And we would contend that  
5 this plant, particularly given the issue with the  
6 underfrequency, is not needed at this time.

7           The water issue, if I could just briefly comment and  
8 then I will wrap up, Mr. Sasso in his opening made an argument  
9 that somehow some objections filed by the water management  
10 district to a request from Florida Power Corporation to  
11 transfer water from Tiger Bay into its cooling pond is not  
12 relevant. And we would argue that it is relevant for this  
13 reason. You have to have water to cool the plant. If you  
14 don't have water, you either have to go to dry cooling, which  
15 is very expensive, or you have to come up with alternative  
16 water sources such as reuse water.

17           Units 1, 2, and 3 are served by a cooling pond, a big  
18 772-acre cooling pond. Water is going to be drawn out of that  
19 cooling pond for all three units. What Florida Power  
20 Corporation was asking be done was to be able to transfer water  
21 from Tiger Bay into the cooling pond. So to the extent that  
22 the cooling pond is used to cool Units 1, 2, and 3, then surely  
23 that issue is relevant to this case. So we are going to be  
24 asking some questions related to water, not because this is the  
25 site certification hearing, we understand the distinction

1 there, but because water is a critical issue in this case as it  
2 relates to reliability and cost-effectiveness.

3 So we appreciate your consideration. We will present  
4 evidence on the points we discussed in our opening statement,  
5 and thank you. Thank you for your time.

6 COMMISSIONER DEASON: Thank you.

7 Staff, do you have any opening statement?

8 MR. HARRIS: No, we do not.

9 COMMISSIONER DEASON: Okay. Yes.

10 COMMISSIONER BRADLEY: Just for a thought, Mr.  
11 Chairman, I did take note of the fact that you hoped that this  
12 hearing will conclude today, and I would like to add this. If  
13 I believe that the record is complete, and if I believe that I  
14 can make a decision without the benefit of a written staff  
15 recommendation, I will be prepared to move the Commission to a  
16 bench decision, and I hope to give everyone a heads up. That  
17 is basically what I'm doing.

18 COMMISSIONER DEASON: Thanks for that, Commissioner.  
19 I think that at the conclusion of the hearing if you wish to  
20 make a motion to that effect, that motion will be entertained.  
21 And depending upon Staff's ability to make an oral  
22 recommendation, and the Commissioners' comfort with making a  
23 decision, that would be considered at that time. But I think  
24 it is appropriate for you to give notice to everyone that that  
25 is a possibility.

1 COMMISSIONER BRADLEY: Thank you.

2 COMMISSIONER DEASON: I believe it is appropriate now  
3 to swear in witnesses.

4 And, Mr. Sasso, are all of your witnesses present in  
5 the hearing room?

6 MR. SASSO: Yes, sir.

7 COMMISSIONER DEASON: So we can swear them all in at  
8 one time.

9 MR. SASSO: Yes, sir.

10 COMMISSIONER DEASON: Very well. I am going to ask  
11 all of the witnesses to please stand and raise your right hand.

12 (Witnesses sworn.)

13 COMMISSIONER DEASON: Mr. Sasso, you may call your  
14 first witness.

15 MR. SASSO: Ben Crisp.

16 - - - - -

17 BEN CRISP

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

20 DIRECT EXAMINATION

21 BY MR. SASSO:

22 Q Good morning. Can you state your name and position,  
23 please.

24 A My name is Ben Crisp. I am Director of System  
25 Resource Planning for Florida Power Corporation and Carolina

1 Power and Light.

2 Q Mr. Crisp, have you filed prefiled testimony in this  
3 case?

4 A Yes, I have.

5 Q Do you have any corrections that you wish to make to  
6 that testimony?

7 A No, I do not.

8 Q If I asked you the questions in that testimony today,  
9 would you give the same answers?

10 A Yes, I would.

11 MR. SASSO: Mr. Chairman, we would request that the  
12 testimony be inserted into the record as though read.

13 COMMISSIONER DEASON: Without objection it shall be  
14 so inserted.

15 BY MR. SASSO:

16 Q Mr. Crisp, have you filed any exhibits with your  
17 prefiled testimony?

18 A Yes, I have.

19 Q Are those identified in your testimony?

20 A Yes, they are.

21 Q Would you please take a moment and tell us what they  
22 are?

23 A I am sponsoring the following exhibits to my  
24 testimony: Exhibit JBC-1, Florida Power Corporation Need  
25 Determination Study for Hines Unit 3; Exhibit JBC-2, Forecast

1 of Winter Demand and Reserves With and Without Hines 3; Exhibit  
2 JBC-3, Florida Power System Typical Load Duration Curve for  
3 2005 and 2006; and Exhibit JBC-4, Levelized Busbar Cost Curves.

4 MR. SASSO: We would ask that these be marked for  
5 purposes of identification.

6 COMMISSIONER DEASON: They will be identified as  
7 Composite Exhibit 1.

8 (Composite Exhibit 1 marked for identification.)  
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**IN RE: PETITION FOR DETERMINATION OF NEED**  
**BY FLORIDA POWER CORPORATION**  
**FPSC DOCKET NO. \_\_\_\_\_**

**DIRECT TESTIMONY OF JOHN BENJAMIN CRISP**

**I. INTRODUCTION AND BACKGROUND**

1

2

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

4 A. My name is John Benjamin Crisp and I am employed by Carolina Power and Light  
5 Company (CP&L). My business address is 410 S. Wilmington Street, Raleigh, North  
6 Carolina, 27601.

7

8 **Q. Please tell us your position with the CP&L and describe your duties and**  
9 **responsibilities in that position.**

10 A. I am Director of System Resource Planning for Florida Power Corporation (Florida  
11 Power or Company) and CP&L. I am responsible for directing the resource planning  
12 process for Florida Power. Our resource planning process is an integrated approach  
13 to finding the most cost-effective alternatives to meet the Company's obligation to  
14 serve, in terms of long-term price and reliability. We examine both supply-side and  
15 demand-side resources available to Florida Power on its system and potentially  
16 available to the Company over its planning horizon, relative to the Company's load  
17 forecasts. In this regard, System Resource Planning prepares and presents the

1 Company's Ten-Year Site Plan (TYSP) documents that are filed with the Florida  
2 Public Service Commission (PSC or Commission), in accordance with applicable  
3 statutory and regulatory requirements. In my capacity as Director of System  
4 Resource Planning, I oversaw the completion of the Company's most recent TYSP  
5 document filed in April 2002, and I presented the Company's 2002 TYSP filing to the  
6 Commission at the planning workshop scheduled for that purpose in August of this  
7 year.

8  
9 **Q. Please summarize your educational background and employment experience.**

10 A. I attended the Georgia Institute of Technology in Atlanta, Georgia. I received a  
11 Bachelor of Science degree in Industrial and Systems Engineering in 1979. As part  
12 of the requirements for my job at Oglethorpe Power Corporation, I also completed  
13 Georgia Tech's International Management Executive Program in 1990.

14 My power industry employment began with Oglethorpe Power Corporation in  
15 1988, where I was involved in the management of peaking generation, generation  
16 planning, operations planning, load forecasting, integrated resource planning, and  
17 strategic and business planning. In addition, I developed and implemented strategies  
18 for asset leasing and fixed price contract supply. I also implemented an operations  
19 resource planning and marketing system for sales of excess generation capacity and  
20 energy in order to optimize the utilization of the company's generation assets for the  
21 benefit of its customers.

22 After leaving Oglethorpe Power in 1995, I joined an independent power  
23 producer (IPP), Tenaska Inc., as its Manager of Power Services Development. In this

1 position, I was responsible for developing marketing proposals for peaking and  
2 combined-cycle facilities that served wholesale requirements and cogeneration  
3 functions. In February 1997 I joined Dynegy Marketing and Trade (then known as  
4 Electric Clearinghouse) in a start-up position in their Atlanta field office. In this  
5 position, I coordinated the development and implementation of power marketing  
6 strategies in Southeastern Electric Reliability Council (SERC) and Florida Reliability  
7 Coordinating Council (FRCC). I was responsible for market analysis, deal  
8 identification and prioritization, capacity and energy pricing, negotiations, portfolio  
9 balance, and achievement of revenue and profit objectives. I also assisted Dynegy  
10 with field alliance development, power plant and asset acquisition, merchant market  
11 evaluation, merchant plant siting, power plant marketing, and strategic asset  
12 deployment.

13 In May 1999, I joined Florida Power as its Director of Integrated Resource  
14 Planning and Load Forecasting. When CP&L merged with Florida Power in  
15 December 2000, I assumed the position of Director of System Resource Planning.

## 17 **II. PURPOSE AND SUMMARY OF TESTIMONY.**

18  
19 **Q. What is the purpose of your testimony in this proceeding?**

20 A. I am testifying on behalf of Florida Power in support of its Petition for Determination  
21 of Need for Hines Unit 3. My testimony will introduce all of the Company's  
22 witnesses in the proceeding. I will provide an overview of the Hines 3 unit that the  
23 Company proposes to build. Then I will discuss Florida Power's Resource Planing



1 process and how that led the Company to identify the Hines 3 unit as its next-planned  
2 supply-side alternative. I will also explain the Company's need for the Hines 3  
3 combined-cycle unit, and describe the steps the Company has taken to seek out  
4 available, superior supply-side alternatives through the Request for Proposal (RFP)  
5 process. Next, I will provide an overview of the Company's evaluation of competing  
6 proposals. I will conclude my testimony by explaining the Company's decision to  
7 proceed with the Hines 3 unit. Detailed information concerning the Company's  
8 decision to build Hines 3 is contained in the Need Determination Study for Hines 3,  
9 provided as Exhibit \_\_\_ (JBC-1) of my testimony.

10

11 **Q.** Are you sponsoring any sections of Florida Power's Need Study (JBC-1)?

12 **A.** Yes. In general I am the sponsor of the Need Study, and in particular I am sponsoring  
13 Section III, "Resource Need and Identification." The Need Study was prepared under  
14 my direction, and it is true and accurate.

15

16 **Q.** **Are you sponsoring any exhibits to your testimony?**

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

18 JBC-1 Florida Power Corporation Need Determination Study for Hines Unit 3

19 JBC-2 Forecast of Winter Demand and Reserves With and Without Hines 3

20 JBC-3 Florida Power System Typical Load Duration Curve (2005-2006)

21 JBC-4 Levelized Busbar Cost Curves

22 Each of these exhibits was prepared under my direction, and each is true and accurate.

23

1 **Q. Please give an overview of the Company's presentation.**

2 A. In addition to my own testimony, the Company will present the testimony of the  
3 following:

- 4     ▪ Mr. James J. Murphy, who will testify about the site and unit characteristics for  
5         the Hines 3 combined-cycle unit, including the size, equipment configuration, fuel  
6         type and supply modes; the approximate costs of Hines 3; and the unit's projected  
7         in-service date;
- 8     ▪ Mr. John J. Hunter, who will describe the Hines Energy Complex (HEC) site,  
9         discuss the environmental benefits of the HEC site and Hines Unit 3, and discuss  
10        the environmental approval process associated with the construction and  
11        operation of Hines 3;
- 12    ▪ Ms. Pamela R. Murphy, who will discuss the Company's oil and natural gas  
13        forecast and the fuel supply plan for Hines Unit 3;
- 14    ▪ Mr. W. Bart White, who will discuss the transmission requirements for Hines 3;  
15        and
- 16    ▪ Mr. Daniel J. Roeder, who will describe Florida Power's RFP, the proposals we  
17        received in response to the RFP, the implementation of the RFP, and the results of  
18        the evaluation of the proposals.

19

20 **Q. Please summarize your testimony.**

21 A. On an ongoing basis, Florida Power conducts a robust resource planning process to  
22 project its future resource needs to serve its customers' future electricity needs in a  
23 reliable and cost-effective manner. Through this process the Company identified

1 Hines Unit 3 as its next-planned generating addition, offering economic benefits to  
2 ratepayers superior to any other alternative. Our evaluation of these alternatives  
3 included an evaluation of generating projects proposed by outside parties in response  
4 to Florida Power's RFP solicitation. Bids were evaluated, and none compared  
5 favorably to the Company's proposed expansion of the HEC. Through its planning  
6 and RFP processes, Florida Power has demonstrated that the Hines 3 unit is the best  
7 alternative for maintaining its electric system reliability and integrity, and providing  
8 its ratepayers with adequate electricity at a reasonable cost.

### 10 III. OVERVIEW OF THE HINES 3 PROJECT

11  
12 **Q. Please provide an overview of the Hines 3 unit.**

13 A. The Hines 3 unit will be a state-of-the-art gas-fired, combined-cycle power unit with  
14 an expected winter rating of 582 megawatts (MW). Florida Power will build the unit  
15 at its HEC site in Polk County, Florida, with an in-service date of December 2005.  
16 The unit will be highly efficient, with a winter full load heat rate of approximately  
17 6,900 Btu/kWh, and will be fueled with natural gas. We currently project the unit to  
18 serve as intermediate capacity, although it would be an attractive base load alternative  
19 if additional base capacity were needed.

20 Although the Company has previously obtained Site Certification from the  
21 Florida Siting Board for the HEC in order to build the Hines 1 and 2 units (and for  
22 3,000 MW of ultimate site capacity), we are seeking at this time Supplemental Site

1 Certification and related environmental permits for the purpose of building the Hines  
2 3 generating unit.

3 The estimated total installed cost for building the unit is \$231 million actual  
4 dollars and \$258 million, including Allowance For Funds Used During Construction  
5 (AFUDC). This includes the cost of equipment; the Engineering, Procurement, and  
6 Construction (EPC) contractor; licensing; internal costs such as construction  
7 management and start-up costs; and plant substation costs.

8 We believe that the Hines 3 unit will enable the Company to meet the  
9 reliability needs of our ratepayers, and that it will provide a superior source of  
10 efficient, low-cost power to our ratepayers during its life.

#### 11 12 **IV. THE COMPANY'S RESOURCE PLANNING PROCESS**

##### 13 14 **Q. Please explain Florida Power's Resource Planning Process.**

15 A. The Resource Planning process is an integrated process in which the Company seeks  
16 to optimize its supply-side options along with its demand-side options into a final,  
17 integrated optimal plan, designed to deliver reliable, cost-effective power to the  
18 Florida Power customers. We evaluate the relationship of demand and supply against  
19 the Company's reliability criteria to determine if additional capacity is needed during  
20 the planning period. With the inclusion of cost-effective DSM programs, the  
21 generation plan is optimized to establish the most cost-effective overall plan, which  
22 becomes the Company's Integrated Optimal Plan. This optimal plan is presented to  
23 the Florida PSC in April of every year in the Company's annual TYSP filing. The

1 TYSP is included as Appendix F to the Need Determination Study, Exhibit \_\_\_ (JBC-  
2 1).

3

4 **Q. What are the reliability standards the Company used to determine the need for**  
5 **additional resources?**

6 A. Florida Power plans its resources in a manner consistent with utility industry planning  
7 practices, utilizing dual reliability criteria: a minimum Reserve Margin planning  
8 criterion and a maximum Loss of Load Probability (LOLP) criterion. Florida Power  
9 has based its planning on the use of dual reliability criteria since the early 1990s, a  
10 practice that has been accepted by the PSC. By using both the Reserve Margin and  
11 LOLP planning criteria, Florida Power's overall system is designed to have sufficient  
12 capacity for peak load conditions, and the generating units are selected to provide  
13 reliable service under all expected load conditions. Florida Power has found that  
14 resource additions are typically triggered to meet Reserve Margin thresholds before  
15 LOLP becomes a factor. However, Florida Power still considers LOLP a meaningful  
16 supplemental reliability measure, and the Company is committed to adding resources  
17 when either one of the criteria would not otherwise be met.

18

19 **Q. Why are reserves needed?**

20 A. Utilities require a margin of generating capacity above the firm demands of their  
21 customers in order to provide reliable service. At any given time during the year,  
22 some plants will be out of service and unavailable due to forced outages to repair  
23 failed equipment. Generating equipment also requires periodic outages to perform

1 maintenance and refuel nuclear plants. Adequate reserves must be available to  
2 provide for this unavailable capacity and for higher than projected peak demand due  
3 to forecast uncertainty and abnormal weather. In addition, some capacity must be  
4 available for operating reserves to maintain the balance between supply and demand  
5 on a moment-to-moment basis.

6

7 **Q. What is Florida Power's Reserve Margin?**

8 A. Florida Power's current minimum Reserve Margin threshold is 15 percent. The PSC  
9 approved a joint proposal from the investor-owned utilities in peninsular Florida –  
10 Florida Power, Florida Power & Light Company, and Tampa Electric Company – to  
11 increase minimum planning Reserve Margin levels to at least 20 percent by the  
12 summer of 2004.

13

14 **Q. What is LOLP and what does it measure?**

15 A. In contrast to Reserve Margin, which is a deterministic measure of reliability, LOLP  
16 is a probabilistic criterion that measures the probability that a company will be unable  
17 to meet its load throughout the year. Where Reserve Margin only considers the peak  
18 load and amount of installed resources, LOLP also takes into account unit failures,  
19 unit maintenance, and assistance from other utilities. A standard probabilistic  
20 reliability threshold commonly used in the electric utility industry, and the criterion  
21 employed by Florida Power, is a maximum of one day in ten years LOLP.

22

23 **Q. How does the Florida Power Resource Planning process begin?**

1 A. The Resource Planning process begins once a forecast of system load growth has  
2 been developed for the next ten years. This forecast draws on the collection of certain  
3 input data, such as population growth, fuel prices, interest and inflation rates, and the  
4 development of economic and demographic assumptions that impact future energy  
5 sales and customer demand.

6  
7 **Q. Briefly describe Florida Power's System demand and energy forecasts.**

8 A. Between the winters of 2002/03 and 2010/11, winter net firm demand is projected to  
9 grow from 8,559 MW to 10,190 MW, which represents approximately a two percent  
10 annual growth rate. The net energy for load is projected to grow from 42,220 GWh in  
11 2002 to 50,437 GWh in 2011, which also represents a two percent growth rate. The  
12 demand and energy forecasts, and the methodology used to develop them, are  
13 discussed in detail in Section III of the Need Determination Study and in Chapter 2 of  
14 the Company's TYSP, which is Appendix F of the Need Study.

15  
16 **Q. How are demand-side programs quantified and incorporated into the  
17 Company's planning process?**

18 A. Through analysis conducted during the last DSM Goals and DSM Plan proceedings  
19 (Docket Nos. 971005-EG and 991789-EG respectively) to assess the projected cost,  
20 performance, viability, and cost-effectiveness of a wide range of dispatchable and  
21 non-dispatchable DSM program options, the Company identified a set of DSM  
22 programs that were cost-effective and met Commission-established goals. With the  
23 approval of its DSM plan by the PSC, Florida Power offers five residential programs,

1 eight commercial and industrial programs, and one research and development  
2 program. Florida Power's DSM programs have successfully met the Commission-  
3 established DSM goals in the past, and the current plan, which includes these  
4 programs, anticipates achieving all of the future year goals.

5  
6 **Q. How are off-system supply resources reflected in the Company's planning  
7 process?**

8 A. Florida Power's plan takes into account its future supply of capacity from purchased  
9 power contracts, as well as its own existing and committed generating units that will  
10 be in service during the study period.

11  
12 **Q. How are new supply-side alternatives identified?**

13 A. If a need for additional capacity during the planning period is identified, Florida  
14 Power examines alternative generation expansion scenarios. Supply-side resources  
15 are screened to determine those that are the most cost-effective. The Company begins  
16 with a wide range of options, identified from various industry sources and Florida  
17 Power's experience, and pre-screens those that do not warrant more detailed cost-  
18 effectiveness analysis. The screening criteria include costs, fuel sources and  
19 availability, technological maturity, and overall resource feasibility within the  
20 Company's system.

21 Generation alternatives that pass the initial screening are considered viable  
22 capacity alternatives and are included in the next step of the planning process. That  
23 step involves an economic evaluation of generation alternatives in PROVIEW, a



1 module of New Energy Associates' proprietary computer model called  
2 STRATEGIST. The primary output of PROVIEW is a Cumulative Present Worth  
3 Revenue Requirements (CPWRR) comparison of all of the viable resource  
4 combinations that will satisfy Florida Power's reliability requirements. The most  
5 cost-effective supply-side resource (or combinations) are evaluated, resulting in a  
6 ranking of the various generation plans by system revenue requirements. PROVIEW  
7 considers many tens or hundreds of thousands of combinations. Each of these  
8 resource combinations is ranked based on cost performance over both the study  
9 period (40 years) and the planning period (10 years). Generally, the generation plan  
10 with the lowest CPWRR over the study period is chosen as the Base Generation Plan.

#### 11

12 **V. HINES 3 IS THE NEXT-PLANNED GENERATING UNIT**

13

14 **Q. Please explain how the Company's Resource Planning efforts identified Hines 3**  
15 **as the Company's next-planned generating unit.**

16 **A.** Through the Resource Planning process I have just described, we developed the 2002  
17 TYSP. The plan includes the Hines 2 unit, currently under construction for  
18 commercial operation by December 2003, and one combustion turbine (CT) unit, for  
19 which equipment and site development plans are being secured to ensure commercial  
20 operation by December 2004. To follow these two additions currently being  
21 developed, the plan calls for the projected combined cycle expansion of the HEC with  
22 Units 3 through 6, which are forecast to be in service by December 2005, 2007, 2009,  
23 and 2010, respectively. Between Hines 4 and 5, the plan calls for the addition of

1 another CT in 2008. The new HEC units will be state-of-the-art combined cycle units  
2 similar to HEC Unit 1 and HEC Unit 2.

3 Florida Power's present Determination of Need Petition, its 2002 TYSP, and  
4 its Commission-approved DSM Plan are all consistent with the Company's Resource  
5 Planning process as described. Subject to identifying superior opportunities by  
6 issuing an RFP, we concluded that Hines 3 was the next-planned generating unit.

7  
8 **Q. Why does Florida Power need additional new generation in December 2005?**

9 A. Florida Power maintains its Reserve Margin for both its summer and winter peak  
10 demands to ensure reliable electric service to its customers. Currently, the  
11 Company's winter peak season triggers the need for additional resources. Florida  
12 Power needs additional generation in December 2005 to meet its 20 percent minimum  
13 Reserve Margin commitment.

14 Exhibit \_\_\_ (JBC-2) shows Florida Power's most recent forecast of winter  
15 peak demand and reserves, with and without the Hines 3 capacity addition. For the  
16 period from the winter of 2002/03 to the winter of 2006/07, Florida Power projects  
17 that the growth in winter peak demand will average approximately 159 MW a year  
18 with a projected peak in 2005/06 of 8,966 MW and in 2006/07 of 9,195 MW. The  
19 exhibit also shows that Florida Power will have a total generating capability of  
20 approximately 10,500 MW by the winter of 2005/06. This capacity includes the  
21 installation of Hines 2 in December 2003, as previously approved by this  
22 Commission, and the addition of a new CT peaking unit by December 2004. As  
23 demonstrated in this exhibit, without the Hines 3 capacity addition, Florida Power's

1 Reserve Margin will decrease to about 17 percent in 2005/06 and 14 percent by  
2 2006/07.

3

4 **Q. What impact will the addition of the Hines 3 capacity have upon Florida Power's**  
5 **Reserve Margin and ability to provide reliable service to its customers?**

6 A. As shown in Exhibit \_\_\_ (JBC-2), the addition of the Hines 3 capacity will increase  
7 Florida Power's Reserve Margin to about 24 percent in 2005/06 and 21 percent in  
8 2006/07. The Hines 3 addition allows Florida Power to satisfy its commitment to  
9 maintain a minimum 20 percent Reserve Margin.

10

11 **Q. Are there other considerations in balancing demand- and supply-side resources?**

12 A. Yes. The Company calculates its Reserve Margin based on the relationship between  
13 firm load and total capacity available to serve that load. Firm load represents firm  
14 customer load after all demand-side management (DSM) capability has been  
15 implemented. Florida Power believes that its dispatchable demand-side resources  
16 provide important and cost-effective resources when appropriately utilized. Although  
17 DSM is available as a resource to reduce load if needed, it cannot be used as often or  
18 as long as physical generation without eventually affecting customer participation  
19 levels, as was demonstrated by the customer attrition experience of 1998 and 1999.  
20 As the Company has learned, when interruptions in service increase in frequency,  
21 customers are less willing to accept such service for lower rates. For this reason,  
22 Florida Power is planning to rely more on additional physical reserves to ensure a  
23 reliable power supply than on the consent of customers to interruptions in service for

1 reduced tariffs. Based on projected load growth, the addition of Hines 3 will increase  
2 the Company's share of physical reserves to approximately one half of total reserve  
3 capacity (which includes DSM) in the winter of 2005/06, a level of physical reserves  
4 sufficient to maintain coverage of an unplanned outage of the fleet's largest unit.

5  
6 **Q. You previously mentioned that Hines Unit 3 would operate as an intermediate**  
7 **load resource. Please describe the role of peaking, intermediate, and base load**  
8 **resources and their contributions to Florida Power's resource requirements.**

9 A. Exhibit \_\_\_ (JBC-3) shows a typical load duration curve representative of the 2005-  
10 2006 timeframe for the Florida Power system. A load duration curve is a plot of  
11 annual hourly firm loads in descending order of magnitude. The plot is based on each  
12 hourly load as a percentage of the annual peak. Overlaid on the curve are the  
13 amounts of Florida Power's base load, intermediate, and peaking resources during the  
14 2005-2006 timeframe without the Hines 3 addition. A utility's load duration curve is  
15 important because it demonstrates the time duration for any particular level of  
16 demand (base, intermediate, or peaking). It is this duration of demand, as well as the  
17 level, that dictates the type of generating units the utility needs to meet customer  
18 demand. As a general rule, peaking resources such as CTs are constructed with the  
19 intention of running them only during peak load periods or emergency conditions.  
20 Therefore, they generally operate at capacity factors less than 20 percent, that is, less  
21 than 20 percent of all hours. Peaking resources have low capital costs but relatively  
22 expensive operating costs. Because CTs can be started quickly in response to a sharp  
23 increases in customer demand without having to continuously operate the units, they

1 are very effective in providing peaking and reserve capacity. The load duration curve  
2 shows that the Company's peaking resources are expected to operate between 10  
3 percent and 20 percent of the time to satisfy peak demand periods.

4 Base load facilities are designed and intended to operate on a near continuous  
5 basis with the exception of outages for required maintenance, repairs, major  
6 overhauls, or for refueling in the case of nuclear plants. These plants are traditionally  
7 called on to operate in the 60 percent and greater capacity factor range. Base load  
8 capacity typically has high capital costs and low operating costs. A combination of  
9 nuclear and coal generation including the Company's Crystal River facility, coal-by-  
10 wire purchases, and cogeneration contracts priced on the basis of coal units provides  
11 Florida Power's base load coverage. This exhibit shows the Company's base load  
12 resources are expected to operate greater than about 70 percent of the time in the  
13 2005-2006 timeframe.

14 Intermediate facilities operate between base load and peaking resources. They  
15 are intended to operate more frequently than peaking resources and are subject to  
16 daily load variations. Because these facilities may take several hours to start up and  
17 bring to full power output, they are best utilized to respond to the more predictable  
18 system load patterns. These plants also contribute to overall system reliability. As a  
19 rule, they operate with capacity factors in the range of 20 percent to 60 percent.

20 Intermediate generation plants have higher capital costs than peaking units, but lower  
21 operating costs than peaking units, making them cost-effective to operate for a longer  
22 duration. However, their operating costs are higher than those of baseload resources.  
23 For example, the operating cost (fuel + variable O&M) of Hines 3 is expected to be

1 \$24.37/MWh in 2006. This is higher than the most expensive coal unit on the Florida  
2 Power system, Crystal River Unit 1, with an expected operating cost of \$18.84/MWh  
3 in 2006. Thus, in order to minimize the dispatch cost of the Florida Power system,  
4 Hines 3 will be dispatched after Crystal River Unit 1, and consequently, run less.  
5 Florida Power's existing intermediate facilities are predominately older fossil steam  
6 plants.

7  
8 **Q. Why has Florida Power chosen the combined-cycle generator as the type of**  
9 **generating capacity to install?**

10 A. The results of our resource planning analyses show that the economics favor  
11 combined cycle units to serve intermediate to base load need. Florida Power has been  
12 projecting the need for combined-cycle capacity in its TYSP filings for many years,  
13 including its most recent April 2002 filing.

14 Perhaps this can most easily be explained using a tool known as "levelized  
15 busbar screening curves." Exhibit \_\_\_ (JBC-4) is a graph of levelized busbar costs  
16 for potential new generation resources, including combustion turbine, combined-  
17 cycle, coal, and nuclear technologies. It illustrates a technology's total levelized  
18 annual cost in \$/kW-year as a function of capacity factor. In this analysis, the costs  
19 were levelized and then present valued to 2001. At zero capacity factor, only a  
20 technology's capital and fixed costs are depicted. The slope of the line is a function  
21 of the variable costs like fuel, variable O&M (operations and maintenance), and  
22 consumables that increase in direct proportion to the energy produced. As the  
23 capacity factor increases, the curve reflects increasing total costs since variable costs

1 such as fuel and variable O&M increase. The steeper the slope of the line, the higher  
2 the variable costs per unit of energy (e.g., \$/MWh). For example, the line  
3 corresponding to a CT has a steeper slope than the line for a coal unit. This is  
4 because the fuel and variable O&M costs for a CT are higher than those of a coal unit.  
5 In this type of analysis, various technologies can be compared in the range of their  
6 expected capacity factors based on total levelized annual cost.

7 For any given capacity factor, the lowest line on the chart represents the  
8 lowest cost technology. The graph shows as the capacity factor increases, the  
9 technology identified as lowest cost changes. The busbar screening curves show that  
10 CT capacity is the most economical new generation alternative at capacity factors less  
11 than about 20 percent. The curves also demonstrate that combined cycle generation is  
12 the most cost-effective new resource when a generator is needed to run more than  
13 approximately 20 percent of the time. The figure also shows that combined cycle  
14 units are less expensive than a new coal (here, conventional pulverized coal) unit or  
15 nuclear unit at any capacity factor, due largely to the higher capital and fixed O&M  
16 costs of new coal and nuclear plants. Thus, combined-cycle generation is the resource  
17 of choice for both intermediate and base load operation.

18 Since combined-cycle generation is the most economical resource for  
19 intermediate duty (and could also economically operate as a base load resource, as  
20 shown in the busbar screening diagram), Hines 3 is an ideal resource to satisfy not  
21 only the projected growth in customers' peak load, but also to serve customers'  
22 growing energy requirements in the most cost-effective way. Hines 3 is projected to  
23 operate at capacity factors in the range of 50-60 percent and will also provide the

1 flexibility to serve as economical base load capacity operating at higher capacity  
2 factors should future system conditions require this type of service. This is both an  
3 economic and a strategic benefit of Hines Unit 3.

4

5 **Q. Is the State of Florida becoming too dependent on natural gas?**

6 A. From our perspective, no. Current economics overwhelmingly favor natural gas  
7 units, as shown in the busbar screening curves. Florida Power has a good base of coal  
8 and nuclear capacity, and there is a limited outlook for cost-effective renewables. As  
9 shown in Pam Murphy's testimony, the natural gas supply is abundant over the study  
10 period.

11

12 **Q. What are the environmental benefits of Hines Unit 3?**

13 A. A combined-cycle facility fueled by natural gas, such as Hines 3, is the cleanest and  
14 most efficient fossil-fueled generation currently available. There are virtually no  
15 sulfur dioxide (SO<sub>2</sub>) emissions, and nitrogen oxide (NO<sub>x</sub>) emissions are  
16 approximately one tenth the level of coal-fired generation utilizing low NO<sub>x</sub> burners.  
17 Therefore, the proposed combined-cycle generation will provide cleaner air for  
18 Florida compared to other alternative generation technologies, and will help the  
19 Company comply with current environmental regulations, as well as prepare the  
20 Company to meet any more stringent regulations that may be enacted in the future.

21

22



## VI. FLORIDA POWER'S RFP

1

2

3 **Q. Please describe Florida Power's efforts to solicit proposals from other supply-**  
4 **side providers.**

5 A. In accordance with Rule 25-22.082, F.A.C., Florida Power issued an RFP on  
6 November 26, 2001, soliciting proposals for other generating resources that might  
7 prove superior to Hines 3 as a supply-side alternative. We filed a copy of this RFP  
8 with the PSC on December 20, 2001 (the RFP is included as Appendix H of Exhibit  
9 \_\_\_\_ (JBC-1)).

10 In our RFP, we explained that we had identified Hines 3 as our next-planned  
11 generating unit, and we invited interested parties to make alternative proposals that  
12 offered superior value. We sought proposals that would be in service by December 1,  
13 2005 and that would be reliable, dispatchable, and technically sound. We were  
14 looking for the proposals to come from experienced, financially-sound developers  
15 that would be able to secure the necessary permits, and that had planned for an  
16 adequate fuel supply. We evaluated all proposals by systematically following a  
17 structured, orderly evaluation process, which we identified in the RFP, along with the  
18 criteria by which we evaluated the proposals.

19

20 **Q. Briefly, what were the results of the RFP?**

21 A. We received proposals from seven bidders. Two of the proposals were eliminated  
22 because they did not meet the basic informational requirements of the RFP. Of the  
23 five remaining participants, one proposal did not pass the Technical Evaluation. The

1 remaining four proposals were put on the Short List and compared to our self-build  
2 alternative, Hines Unit 3. We performed a significant amount of analysis, evaluating  
3 the price and non-price attributes of the alternatives. The final evaluation of the non-  
4 price attributes showed Hines Unit 3 to be one of the top two ranked alternatives in all  
5 the categories. The detailed economic analysis found Hines Unit 3 to be over \$92  
6 million (2002 dollars) less expensive than the least-cost third-party proposal. The  
7 least-cost Greenfield Proposal (another combined-cycle plant) was found to be more  
8 than \$187 million (2002 dollars) more expensive than Hines Unit 3. Finally, we  
9 performed sensitivity analyses, in which we gave advantages to the third-party  
10 proposals by assuming decreases in their costs or increases in the costs associated  
11 with Hines Unit 3. In all cases, Hines 3 was the least cost alternative, demonstrating  
12 that the selection of Hines 3 is a sound choice. The testimony of Daniel J. Roeder  
13 describes in detail the RFP, the process we followed, the evaluation of the proposals,  
14 and the results of the analysis.

## 15 16 VII. MOST COST-EFFECTIVE ALTERNATIVE

17  
18 **Q. Is the Hines 3 unit the Company's most cost-effective alternative for meeting its**  
19 **need?**

20 **A.** Yes, it is. As I have described, the Company conducted a careful screening of various  
21 other supply-side alternatives as part of its Resource Planning process before  
22 identifying Hines 3 as its next-planned generating alternative. We were able to screen  
23 out less cost-effective supply side alternatives, identifying Hines 3 as the most cost-

1 effective alternative available to us. Further, through our RFP process, we  
2 determined that the Hines 3 unit was also more cost-effective than any of the  
3 proposals made to us.

4  
5 **Q. Why do you think Hines Unit 3 is the most cost-effective alternative?**

6 A. There are a number of factors, with the significant cost differences being primarily  
7 related to the lower fixed costs of Hines 3. First, Florida Power negotiated  
8 combustion turbine equipment terms several years ago, when we negotiated  
9 equipment prices for Hines 1. Second, Florida Power is able to take advantage of its  
10 prior investment in infrastructure at the HEC. Third, by virtue of owning and  
11 operating two other power stations on the same site, Florida Power will need to add a  
12 much smaller number of new employees to operate the three units at the HEC than  
13 bidders would have to employ to operate a greenfield plant. Finally, Florida Power  
14 has as good, or better, credit rating than many of the IPPs today. Thus, the Company  
15 has a financing advantage.

16  
17 **VIII. BENEFIT TO THE STATE**

18  
19 **Q. Is the Hines 3 unit consistent with the needs of Peninsular Florida?**

20 A. Yes, the Hines 3 unit will assist Florida Power in meeting its 20 percent planned  
21 Reserve Margin and, concomitantly, will assist Peninsular Florida in attaining the 15  
22 percent minimum level of planning reserves targeted for the FRCC region.

23

## IX. CONSEQUENCES OF DELAY

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22

**Q. What will be the impact of delay in implementing the Hines 3 project?**

A. If the Hines 3 unit is delayed, Florida Power would not be able to satisfy its minimum 20 percent Reserve Margin planning criterion by the winter of 2005/06 in the most reliable and cost-effective manner. This would expose Florida Power's customers to a risk of interruption of service in the event of unanticipated forced outages or other contingencies for which Florida Power maintains reserves. Even without an interruption in service, without the efficient Hines 3 unit, Florida Power's customers would be subject to higher fuel costs as less efficient units are used to serve their needs. For example, if Hines 3 is delayed one year and no other capacity is added in its place, Florida Power's production costs would increase approximately \$25 million due to that one-year delay.

## X. CONSERVATION MEASURES

**Q. Did Florida Power attempt to mitigate its need for the proposed unit by pursuing conservation measures reasonably available to it?**

A. Yes, we did. As I discussed previously, the Company identified and has implemented a set of cost-effective DSM programs that have successfully met Commission-established goals. We anticipate that we will achieve all of the future year goals also.

**XI. CONCLUSION**

1

2

3 **Q. Please summarize the benefits of the Hines 3 unit.**

4 A. Florida Power needs the Hines 3 unit to maintain its electric system reliability and  
5 integrity and to provide its ratepayers with adequate electricity at a reasonable cost.  
6 By building the unit, the Company will be able to meet its commitment to maintain a  
7 20 percent Reserve Margin, and it will do so by improving not just the quantity, but  
8 also preserving the quality, of its total reserves, maintaining an appropriate portion of  
9 physical generating assets in the Company's overall resource mix. The unit will also  
10 add diversity to Florida Power's fleet of generating assets, in terms of fuel,  
11 technology, age, and functionality of the unit. Having exhausted conservation  
12 measures reasonably available to the Company, Florida Power selected the Hines 3  
13 unit as its most cost-effective alternative for meeting its needs. The unit will be a  
14 state-of-the-art, fuel efficient, environmentally benign installation that will be located  
15 on a site substantially pre-approved for exactly this kind of power resource. We are  
16 pleased to be able to add this unit to the Company's fleet and to Peninsular Florida,  
17 and we urge the Commission to approve the plan.

18

19 **Q. Does this conclude your testimony?**

20 A. Yes, it does.

1 BY MR. SASSO:

2 Q Have you prepared a summary of your testimony?

3 A Yes, I have.

4 Q Would you please summarize your testimony for the  
5 Commission, please?

6 A Yes. Good morning, Commission. Again, my name is  
7 Ben Crisp, and I am the Director of System Resource Planning  
8 for Florida Power Corporation and Carolina Power and Light. I  
9 am responsible for directing the resource planning process for  
10 Florida Power. I have had overall responsibility for the work  
11 leading up to the selection of Hines 3 as the most  
12 cost-effective alternative for meeting our upcoming need.

13 As the Commission is aware, Florida Power plans for  
14 its resource needs by using dual reliability criteria, a  
15 minimum reserve margin planning criterion and a maximum loss of  
16 load probability LOLP criterion. We have found that resource  
17 additions are typically triggered to meet the first criterion,  
18 our reserve margin thresholds, before the second criterion,  
19 LOLP becomes a factor.

20 In response to concerns by the Commission and its  
21 staff, we have agreed to follow a minimum reserve margin  
22 planning criterion of 20 percent by the summer of 2004. This  
23 will provide important protection to our customers against the  
24 risk of unplanned outages or extreme temperature events.  
25 Currently the company's winter peak season drives the need for

1 additional resources. Without the addition of Hines 3 in  
2 December 2005, Florida Power's reserve margin is projected to  
3 decrease to about 17 percent in the winter of 2005/2006, and 14  
4 percent by 2006/2007. Our reserve margins would plummet after  
5 2005/2006 without the addition of other power blocks reflecting  
6 the fact that we have a long-term need for significant  
7 additional capacity.

8 For this reason, as our ten-year site plan shows, we  
9 are planning for the addition of power blocks similar to Hines  
10 3 in December of 2007, 2009, and 2010. Beyond supplementing  
11 the quantity of our planning reserves, we are seeking to build  
12 Hines 3 to improve the quality of our reserves.

13 As the Commission is aware, the company calculates  
14 its reserve margin based on the relationship between firm load  
15 at the time of peak and total capacity to serve that load.  
16 Firm load represents firm customer load after all demand-side  
17 management capability has been implemented. We believe that  
18 our dispatchable demand-side resources provide important and  
19 cost-effective resources when appropriately utilized, but there  
20 are limits. We cannot use demand-side management or DSM as  
21 often or as long as physical generation without eventually  
22 affecting customer participation levels, as was demonstrated by  
23 our customer attrition from our DSM programs in 1998 and 1999.

24 For this reason, we have been implementing a plan to  
25 rely more on additional physical reserves to ensure a reliable

1 power supply than on the consent of customers to interruptions  
2 in service for reduced tariffs. Based on projected load  
3 growth, Hines 3 will increase the company's share of physical  
4 reserves to approximately one-half of total reserve capacity,  
5 that is including DSM, in the winter of 2005 and 2006, a level  
6 of physical reserves which is sufficient to maintain coverage  
7 of an unplanned outage of the fleet's largest unit.

8 We are confident that we cannot avoid the need to  
9 build Hines 3 by relying any more than we have on DSM or any  
10 other conservation measures. We made the decision to seek  
11 permission to build Hines 3 after a careful screening of  
12 various other supply-side and demand-side alternatives as part  
13 of our resource planning process and then through conducting an  
14 RFP process.

15 The RFP process was designed to encourage bidders to  
16 provide creative supply-side solutions that bring incremental  
17 value to the ratepayer. The process was clearly announced,  
18 defined, and communicated to the industry. The measurement  
19 criteria were specified so that bidders would know what types  
20 of criteria would be measured. Every opportunity was taken to  
21 encourage bidders to refine their bids so that they might be  
22 more competitive. Even through an exhaustive process where  
23 bidders were offered many opportunities to improve their bids,  
24 the Hines 3 self-build option remained the best supply-side  
25 option at the end of the evaluation.



1           As a result, we are confident that we are bringing  
2 before this Commission a project that is head and shoulders  
3 above other options available to the company. It should be no  
4 surprise that Hines 3 has lower costs than the alternatives.  
5 We were able to negotiate favorable equipment options on the  
6 combustion turbines at the time FPC went into the market for  
7 Hines 1. Also, we are building the plant at the Hines Energy  
8 Complex where we can take advantage of existing infrastructure.  
9 Because we will be operating two other combined cycle units  
10 there, we will need to hire only a handful of additional  
11 employees for Hines 3, many fewer than would be required for  
12 any other greenfield project.

13           Finally, FPC has as good or better credit standing  
14 than IPPs and a lower cost of capital than unregulated entities  
15 which will produce lower financing costs. By a wide margin  
16 Hines 3 is the most cost-effective alternative available to the  
17 company to meet its power resource needs in the time frame  
18 beginning in the winter of 2005/2006 and beyond.

19           Hines 3 will be a state of the art, natural gas-fired  
20 combination cycle power plant that will provide our system with  
21 flexible intermediate or base load capacity at a cost  
22 substantially below the next best alternative. The unit will  
23 enable Florida Power to continue to provide adequate, reliable  
24 service at a reasonable cost.

25           This is a good project that will benefit our

1 customers in the State of Florida. We need to install Hines 3  
2 by the winter of 2005 and 2006 for three reasons. First of  
3 all, to continue to maintain system reliability and integrity  
4 and to continue to satisfy our 20 percent reserve margin  
5 requirement. Secondly, to continue to provide adequate  
6 electricity at reasonable costs. Third, and finally, to ensure  
7 appropriate diversity in the company's supply-side resource  
8 mix.

9 We respectfully ask that this Commission approve our  
10 petition for a determination of need for Hines 3. Thank you.

11 MR. SASSO: Mr. Chairman, we tender Mr. Crisp for  
12 cross-examination.

13 COMMISSIONER DEASON: Mr. Moyle.

14 MR. MOYLE: Thank you.

15 CROSS EXAMINATION

16 BY MR. MOYLE:

17 Q Mr. Crisp, in your opening statements and also in  
18 your testimony you testify about the need for the plant,  
19 correct?

20 A That is correct.

21 Q And Florida Power Corporation uses essentially two  
22 tools to determine need, one is a reserve margin and the other  
23 is a LLOP tool, is that correct?

24 A It's LOLP, loss of load probability.

25 Q Okay. Could you describe a little bit what that

1 second tool is?

2 A Loss of load probability is a probability measure.  
3 And what we measure is the probability of loss of load within  
4 one day in ten years time frame. So it is the probability of  
5 losing load for one day over a ten year time frame.

6 Q So if you find that it is not probable that you would  
7 lose load for one day over ten years, then that criteria is met  
8 and you have enough generating ability, is that correct?

9 A Not necessarily.

10 Q Why not?

11 A The criteria --

12 Q I'm sorry, go ahead. I was going to ask you why that  
13 is not correct.

14 A That is not correct because the determination is  
15 based on -- for us it is based on reserve margin criteria. The  
16 loss of load probability is simply a supplement to the system  
17 where we go in and use loss of load probability to identify the  
18 robustness of our reserves.

19 Q So, am I correct then that if you had to prioritize,  
20 if they said to you, listen, you can only use one tool to  
21 figure out whether you have enough generation, reserve margin  
22 or loss of load probability, you would decide to go with the  
23 reserve margin criteria as compared to the loss of load  
24 probability analysis?

25 A Yes, that is the determination of the Commission.

1 Q Okay. I'm asking you about your determination as a  
2 person who is involved in planning.

3 A Yes.

4 Q You also plan for Carolina Power and Light, is that  
5 right?

6 A That is correct.

7 Q Is the reserve margin criteria the paramount criteria  
8 that is used for planning for that system?

9 MR. SASSO: Objection, Mr. Chairman, irrelevant.

10 COMMISSIONER DEASON: There has been an objection,  
11 Mr. Moyle.

12 MR. MOYLE: I would argue that it is relevant with  
13 respect to the need for the plant. He is indicating that he  
14 plans for two systems, I think it is a fair question to ask  
15 whether there is consistency in those systems.

16 COMMISSIONER DEASON: The objection is overruled.  
17 You may answer the question.

18 THE WITNESS: Please repeat the question.

19 MR. MOYLE: Sure.

20 BY MR. MOYLE:

21 Q You are employed by Florida Power Corporation or  
22 Carolina Power and Light?

23 A Both.

24 Q And you plan for both?

25 A That is correct.

1 Q With respect to planning for your system in North  
2 Carolina, is the reserve margin criteria the criteria that is  
3 first and foremost in your planning purposes, that you use for  
4 your planning purposes?

5 A That is correct.

6 Q Are there other criteria that you use in North  
7 Carolina?

8 A We also use loss of load probability as an  
9 augmentation.

10 Q Okay. So loss of load augments the reserve margin?

11 A It provides supporting data to the reserve margin  
12 criteria, that is correct.

13 Q As we sit here today, you don't have any concerns,  
14 you being Florida Power Corporation, with respect to the  
15 ability to serve firm load at a 15 percent reserve margin, do  
16 you?

17 A That is correct. Today we have a 15 percent reserve  
18 margin and we are operating within that 15 percent reserve  
19 margin requirement.

20 Q And historically you have operated within that 15  
21 percent reserve margin in a reliable fashion, is that correct?

22 A Since its inception, correct.

23 Q So given that historically you have always operated  
24 reliably at a 15 percent reserve margin, then what is the basis  
25 for the need for this plant from a reliability perspective?

1           A     From the reliability perspective, the reserve margin  
2 requirement has been increased to 20 percent in June of 2004.  
3 The reason for that increase is because staff raised credible  
4 issues concerning reserve margin requirements that resulted in  
5 agreement between three IOUs and Staff of the Commission to  
6 increase reserve margin to further define the reliability needs  
7 and protect the reliability needs within Peninsular Florida.

8                     With the agreement that the 20 percent reserve margin  
9 would begin in June of 2004, Florida Power will meet that 20  
10 percent reserve margin requirement. In addition to that, as we  
11 have stated in my opening statement and in my testimony,  
12 Florida Power has relied traditionally in the past heavily on  
13 DSM requirements. Increasing the reserve margin requirements  
14 to 20 percent will allow Florida Power to better balance its  
15 reserve margin resource mix where it will be more focused on  
16 physical reserves than on DSM, a better balance of physical  
17 reserves and DSM.

18           Q     I'm going to follow up on that issue about the  
19 physical versus the DSM, but before I do I forgot to ask you  
20 this question. Are you testifying as an expert in planning?

21           A     As far as having roughly 15 to 20 years of experience  
22 in planning, operating, and constructing generating units, I  
23 have expertise in that area. As far as how you define an  
24 expert, I don't know if that has legal connotations or not, but  
25 I have expertise in that area.

1 Q I'm not asking you for a legal definition, I'm asking  
2 you do you consider yourself an expert in planning?

3 A I think I answered your question.

4 Q Was that a yes, then?

5 A I have expertise in planning.

6 Q Do you think 20 percent is the right number for the  
7 reserve margins in Florida in your expert opinion?

8 A Yes, I do.

9 Q And that would also be the correct number in North  
10 Carolina?

11 A No.

12 MR. SASSO: Mr. Chairman, we are proceeding to build  
13 this plant in Florida, not North Carolina.

14 COMMISSIONER DEASON: I understand. Your objection  
15 is still overruled. You may answer the question.

16 THE WITNESS: No, that would not be correct and here  
17 is why. North Carolina has a significant amount of open grid  
18 performance in which North Carolina can tap into a variety of  
19 resources. There is very, very significant differences in the  
20 operating performance of the North Carolina system versus the  
21 Florida system, so there is a different set of conditions, a  
22 full different set of operating conditions within North  
23 Carolina and South Carolina as there are in Florida.

24 BY MR. MOYLE:

25 Q What is the number, the reserve margin number in

1 North Carolina?

2 A We have an agreement with the Staff and Commission in  
3 North Carolina to operate between 11 and 13 percent of the  
4 capacity reserves which translates between 12 and 15 percent to  
5 the best of my knowledge in reserve margin.

6 Q And that has been reliable?

7 A Yes, it has.

8 COMMISSIONER DEASON: Let me ask a question. What is  
9 the DSM proportion in North Carolina as compared to Florida?

10 THE WITNESS: That is a very good question, sir.  
11 There is virtually no DSM in the Carolinas. We have  
12 approximately 300 megawatts of interruptible/curtailable  
13 industrial load, compared to a 10,000 megawatt system. Maybe  
14 one or two percent of the total of that 12 to 14 or 15 percent  
15 reserve margin is that interruptible/curtailable amount,  
16 whereas opposed to Florida where we have roughly currently all  
17 of our reserves are in DSM. And that's why we are trying to  
18 build up our physical reserve percentage.

19 BY MR. MOYLE:

20 Q Okay. And that is following up a little bit. I  
21 think you had made a distinction between physical reserves  
22 versus DSM in Florida. Did I hear you say that nearly all of  
23 your reserve margins are DSM-based in Florida?

24 A The majority of our reserves currently and in the  
25 past have been DSM.



1 Q Do you know the percentage?

2 A Not off the top of my head.

3 Q Okay. This 20 percent number, you are aware that  
4 that number was arrived at by agreement of three parties,  
5 correct, it was a stipulation by three parties?

6 A I believe so.

7 Q And you also are aware there was never evidence put  
8 on as to whether that was, you know, the right number or not,  
9 it was something that was agreed to just before the eve of  
10 hearing where evidence would have been adduced?

11 A That is correct.

12 Q Were you involved in that proceeding?

13 A Yes, I was.

14 Q Would it be a fair statement to say that some of the  
15 concern expressed by Staff and others was that Florida Power  
16 Corporation was calling upon its DSM customers with great  
17 frequency in order to meet its reserve margin requirements?

18 A I don't think that is correct. And the reason being  
19 is there were a variety of issues being put on the table by  
20 Staff and the Commission at that point in time for concerns  
21 over the overall reliability of Peninsular Florida. Specific  
22 to Florida Power Corporation, our concern was that DSM was a  
23 larger majority of percentage of our reserve margin.

24 Q And you all are making efforts to have physical  
25 assets be a majority of your reserve margin, correct?

1 A That is correct.

2 Q Okay.

3 A Excuse me, let me go back just a moment. There is  
4 not necessarily a majority of the reserves, but a proportional  
5 amount that makes the system robust. One of the things that we  
6 are looking for is trying to be able to cover the forced outage  
7 of our single largest unit within the system without having to  
8 lean on DSM. For instance, in the summer months where you have  
9 long periods of -- the peaks cover long periods of time, if we  
10 had a forced outage of our single largest unit we would want to  
11 be able to cover that with physical reserves and not have to  
12 lean on DSM for 8 to 12 hours at a time during the day.

13 MR. MOYLE: Okay. I want to go ahead and have marked  
14 and show him an answer to an interrogatory that I plan to  
15 introduce into the record if I could do that.

16 COMMISSIONER DEASON: You wish to have this  
17 identified, Mr. Moyle?

18 MR. MOYLE: Please. I guess it would be PACE Exhibit  
19 Number 1.

20 COMMISSIONER DEASON: We are going to identify it for  
21 the record as Exhibit Number 2.

22 (Exhibit 2 marked for identification.)

23 BY MR. MOYLE:

24 Q I'm showing you Florida Power Corporations' answer to  
25 Interrogatory Number 7, which asked if you believe -- you being

1 Florida Power Corporation -- that the system reliability  
2 integrity is jeopardized at a 15 percent reserve margin, and  
3 you answered no with some explanation. Did you prepare that  
4 answer?

5 A I had oversight in the preparation of that answer.

6 Q And is it true and accurate as you sit here today?

7 A Yes, it is.

8 Q In your testimony, and I think you also mentioned it  
9 in your summary, you talked a little bit about heat rate. I  
10 have seen three sets of numbers floating around for heat rate.  
11 I understand there was a number of approximately 7,300 in a  
12 ten-year site plan, and I think 7,100 approximately was used in  
13 the RFP, and a 6,900 heat rate was used in your testimony and  
14 in your need case. Is that correct?

15 A Yes, it is.

16 Q Could you explain the variation in these heat rates  
17 as used in these three different sets of documents?

18 A Certainly, I will be happy to. The 7,300 heat rate  
19 that is quoted in the ten-year site plan is an average net  
20 operating heat rate. And what that does is that gives an  
21 indicator of an average heat rate across all of the spectrum of  
22 the conditions of the unit. So to calculate that average net  
23 operating heat rate, you would look at the heat rate at minimum  
24 performance during both summer and winter operating conditions,  
25 and you would look at full load heat rate during summer and

1 winter operating conditions. Take those four numbers together  
2 and calculate an average and you come up with the 7,300 number  
3 that is the average net operating heat rate referenced in the  
4 ten-year site plan.

5 Now you referenced a 7,100 heat rate that was  
6 included in the request for proposals?

7 Q Yes.

8 A The 7,100 heat rate was the information that was  
9 available at the time of the issuance of the RFP, and it  
10 reflects the best available information that we had at that  
11 time. And to the best of my knowledge it is an indicator of  
12 where Hines 1 was operating at, so it gave us a good indication  
13 of a number to comparably use within our RFP.

14 The 6,900 heat rate is specifically referenced to  
15 Hines 3. And that is, once again, the best information that we  
16 have available on what Hines 3 can operate at at full load heat  
17 rate.

18 Q Thank you for that explanation.

19 A You're welcome.

20 Q The equipment that is used at Hines 1, what is that  
21 equipment with respect to the turbine?

22 A It is Westinghouse Siemens equipment.

23 Q Is that also the equipment that is going to be used  
24 at Hines 3?

25 A It is not exactly the same, but it is the same

1 designation units, 501, combustion turbines.

2 Q What is not the same about them?

3 A You should probably ask our construction manager  
4 about that, Mr. Murphy.

5 Q If I heard your answer to my previous question, you  
6 indicated that the 7,100 number was based in part on info that  
7 you had at the time of the RFP related to Hines 1 operated,  
8 correct?

9 A That's correct.

10 Q What number did you use for modeling purposes, for  
11 economic modeling?

12 A You should -- well, first of all, as far as economic  
13 modeling there were two different -- or a number of different  
14 types of modeling processes used. And the heat rates for the  
15 the units did not come into play. Full heat rate curves were  
16 utilized on the detailed modeling. For additional information  
17 I talked with Mr. Roeder on that.

18 Q Okay. So if I asked you the question why didn't you  
19 use the 7,100 heat rate for modeling purposes, which is what  
20 apparently is the case with Hines 1, you wouldn't be able to  
21 give me an answer to that, and I should ask that of Mr. Roeder?

22 A You should ask Mr. Roeder about the heat rates and  
23 how they were utilized.

24 Q I have some questions about environmental permitting  
25 and water. Would that be something I would ask you or maybe

1 Mr. Hunter?

2 A You can ask me general questions if you wish.

3 Q Tell me your role with respect to the supplemental  
4 site certification, what role did you play, if any?

5 A None.

6 Q Who is in charge of supplemental site certification?

7 A That would be Mr. Hunter.

8 Q I think I will hold the question for him. Thank you.

9 Does Florida Power Corporation as we sit here today  
10 have a goal with respect to the amount of physical reserves  
11 that will make up its reserve margin as compared to demand-side  
12 management?

13 A No, we do not. We do not have an expected goal to  
14 achieve a physical percentage. Like I said, we want to be able  
15 to cover the single largest unit outage with physical reserves.

16 Q And what unit would that be, Crystal River?

17 A That would be Crystal River 3.

18 Q Do you have a goal in North Carolina with respect to  
19 the amount of physical reserves?

20 A No, we do not. There is a goal with respect to  
21 operating reserves that is tied to physicals, but that is  
22 not -- it is not an incorporated goal within the reserve margin  
23 requirements.

24 Q Okay. I noticed that you indicated that you had  
25 eliminated a proposal because it did not pass the technical

1 evaluation?

2 A I'm sorry, repeat that. I was think about something  
3 else that I should add to the explanation there. Please  
4 remember that in North Carolina we have almost all physical  
5 reserves.

6 Q I appreciate the clarification. The question I was  
7 asking you is that I saw in your testimony that you all had  
8 eliminated a proposal of an outside bidder because it did not  
9 pass the technical evaluation. Are you familiar with that?

10 A Vaguely.

11 Q Tell me what you know. I think I had it on Page 20  
12 of your testimony if it would help you to refer to it.

13 A Yes, it would.

14 Q The question was briefly what were the results of the  
15 RFP, and your answer was we received proposals from seven bids.

16 A Right. Initially two of the proposals were  
17 eliminated because they did not answer -- there was not  
18 sufficient answering of all of the threshold requirements  
19 providing all of the information that was necessary for us to  
20 measure their bids. And then one of the remaining participants  
21 did not pass the technical evaluation criterion.

22 Q And tell me what the problem was, if you know?

23 A I would appreciate it if you go into that with Mr.  
24 Roeder. He can tell you all the details on why that unit or  
25 why that particular bid was not --

1 Q Okay. So you don't have information on that?

2 A He can answer it better than I can.

3 Q Tell me your role in the RFP process. Were you in  
4 the meetings where decisions were made like to eliminate a  
5 proposal because it didn't pass the technical evaluation?

6 A I was in an oversight role in the process. Mr.  
7 Roeder was the project leader of the process and fully  
8 responsible for the results of the RFP evaluations.

9 Q In Page 21 of your testimony you state the  
10 detailed -- this is on Line 5 -- the detailed economic analysis  
11 found Hines 3 to be over \$92,000,000 (2002 dollars) less  
12 expensive than the -- I think you should say than the least  
13 cost proposal.

14 That is your testimony, that the least cost -- the  
15 person who came in second was \$92 million short of the Hines 3  
16 proposal?

17 A It cost \$92 million more than the Hines 3 proposal.

18 Q Help me you understand this if you will, because the  
19 whole plant only cost 225 million approximately, correct?

20 A That is correct.

21 Q And it is your testimony that the second place person  
22 was \$92 million short of Hines 2, or \$92 million more than  
23 Hines 3?

24 A That is correct. The reason for that is that we do  
25 cumulative present worth revenue requirement analyses as



1 required by the Commission on our bids. We compare those bids  
2 to Hines 3. We look at the life span evaluation time frame and  
3 over that time frame the next best bid was \$92 million more  
4 expensive than Hines 3.

5 Q So that is over, what, 30 years, 25 years?

6 A 25-year time frame.

7 Q If you were to put a percentage on that, how close  
8 was that second place bid to your Hines 3 bid in terms of  
9 percentages, if you know?

10 A I haven't put a percentage on it, so I would not be  
11 able to answer that. But \$92 million is \$92 million to the  
12 ratepayer.

13 Q Would it be within one percent of the Hines 3?

14 A As I said I have not calculated percentage on it so I  
15 couldn't answer that question. But the fact that there is \$92  
16 million available to the ratepayer is a significant amount of  
17 money to the ratepayer.

18 Q So this is a calculation over 25 years?

19 A That is correct.

20 Q Do you know what the net present value of the revenue  
21 requirement for Hines 3 is?

22 A That would be a question for Mr. Roeder.

23 MR. MOYLE: If I could have a minute just to review  
24 my notes.

25 (Pause.)

1 BY MR. MOYLE:

2 Q In the need study there were some rankings that were  
3 done, number values were assigned one to five. Are you  
4 familiar with that?

5 A Yes, vaguely familiar with those.

6 Q Who assigned those numbers?

7 A To the best of my knowledge the teams put those  
8 numbers together, the evaluation teams.

9 Q Were you responsible for assigning those numbers or  
10 was that Mr. Roeder?

11 A That was Mr. Roeder.

12 Q I have a few questions about contracting with an IPP  
13 in a cost analysis that was performed. Would you be the best  
14 person to ask those questions of or should I defer that for Mr.  
15 Roeder?

16 A That depends on if you are talking about the generic  
17 process.

18 Q It is specific information related to bids received  
19 as compared to the Hines 3.

20 A That would probably be Mr. Roeder.

21 Q I will defer that for Mr. Roeder. You talked in your  
22 opening statement a little bit about taking advantage of prior  
23 investment in infrastructure at the Hines Energy Complex. Do  
24 you recall that?

25 A Yes, I do.

1 Q Tell me how those costs are attributed to Hines 1, 2,  
2 and 3, if you will?

3 A Those are sunk costs. The costs to develop the site  
4 are sunk costs, they are not attributed to any one of the  
5 particular units.

6 Q So the cooling pond, that is a 772-acre cooling pond,  
7 correct?

8 A That is not correct.

9 Q How big is it?

10 A 722 acres.

11 Q That was built and designed to provide water for how  
12 many units?

13 A If the cooling pond was originally built to handle  
14 all of the units, there is a total site capacity of  
15 3,000-megawatts on the site.

16 Q So the cooling pond was built to handle all six units  
17 that are planned?

18 A I don't know the answer to that.

19 Q Do you know as we sit here today whether the cooling  
20 pond is sufficient to provide water for Hines Unit 3?

21 A Hines Unit 3 has a ground water permit that allows it  
22 to take out of the ground up to 5 million gallons per day, and  
23 that is more than adequate to satisfy the needs of Hines Unit  
24 3.

25 Q So is it your testimony that the cooling pond is not

1 needed by the Hines Unit 3?

2 A The cooling pond is exactly what it states, it is a  
3 cooling pond. You have to replenish the cooling pond for a  
4 units usage of water, and the five million gallons per day  
5 permit that is associated with Hines 3 and that has been  
6 dedicated to Hines 3, there is more than enough water in that  
7 five million gallon per day allocation to replenish the needs  
8 of Hines 3.

9 Q So you take that five million and put it into the  
10 cooling pond and then draw it out of the cooling pond, is that  
11 how it works?

12 A You take the necessary amount and you put it in the  
13 cooling pond to keep it replenished.

14 Q And then the water comes out of the cooling pond and  
15 serves Hines Unit 3, correct?

16 A That is correct.

17 Q So am I correct then in that all the costs to  
18 construct the cooling pond which apparently is being used for  
19 Hines Unit 1, 2, and will be used for 3, that those costs were,  
20 in effect, front-end loaded, that they were incurred, you know,  
21 six, eight, ten years ago?

22 A I believe that is correct to the best of my  
23 knowledge. The site development costs are sunk costs.

24 Q Did you consider apportioning, say, a third of the  
25 cooling pond, or a fourth of the cooling pond, or a sixth of

1 the cooling pond, did you consider attributing that to the  
2 Hines 3 unit as a cost?

3 A No.

4 Q And that is because it was a sunk cost?

5 A Correct.

6 Q Is that something that the ratepayers paid for those  
7 initial costs, or did the shareholders pay for that initial  
8 cost of that cooling pond, do you know?

9 A I don't know the answer to that.

10 Q Okay. If this Commission were to delay ruling on the  
11 case for whatever reason, the underfrequency issue or anything  
12 else, you don't have a concern about your ability to provide  
13 adequate and reliable service, do you?

14 A I have a concern that we will not be able to meet the  
15 20 percent reliability criterion that has been established with  
16 the Commission.

17 Q Okay. But with respect to your ability to provide  
18 adequate and reliable service, you don't have a concern there,  
19 do you?

20 A I do have a concern with that because the 20 percent  
21 criterion is established, and I need to be able to maintain the  
22 integrity of my fleet against the criterion of the Commission.

23 Q But I think you said if Hines is deferred or is not  
24 built you have a 17 percent reserve margin in '05/'06?

25 A That is correct.

1 Q And that would be sufficient to meet your -- to  
2 provide adequate and reliable service, would it not?

3 A What I said there was that we had performed  
4 adequately at 15 percent. There are additional concerns by the  
5 Staff and the Commission, and that is why we increased our  
6 reserves to 20 percent. Those concerns, along with our  
7 concerns for the proportion of physical reserves, gives us  
8 cause for concern where we want to go ahead and achieve that 20  
9 percent that has been established by the Commission.

10 Q Page 23 of your testimony. At Line 11 you say if  
11 Hines 3 is delayed one year and no other capacity is added in  
12 its place, Florida Power's production costs will increase  
13 approximately 25 million during that one-year delay. Do you  
14 see that?

15 A I don't see it, but I know what you are talking  
16 about.

17 Q Is that your testimony, that if there is a delay --

18 A On Page 23? I'm sorry, go ahead.

19 Q Is that your testimony?

20 A Yes, it is.

21 Q That number doesn't take into account the value of  
22 deferring the unit, does it?

23 A That number reflects specifically if the unit is not  
24 installed then that is what happens to the production costs  
25 that will impact the ratepayer.

1 Q But if the unit is installed, you have some interest  
2 charges and carrying costs, correct?

3 A I don't know the answer to that.

4 Q Have you read the PACE amended petition to intervene  
5 in this case?

6 A I scanned it, yes.

7 Q Let me ask you this, you're talking about the need,  
8 what portion of this unit, if you know, will go to native load  
9 retail customers and what portion will go to serve wholesale  
10 contracts?

11 A We do not allocate units out on a percentage basis.  
12 The unit is put into the system, and the system dispatches to  
13 meet the total load signal for the system. So we don't  
14 allocate it out a percentage of wholesale or percentage of  
15 retail.

16 Q The PACE petition had attached to it a story about an  
17 FPC business strategy to increase wholesale sales in Florida,  
18 did you see the article that was attached to the amended  
19 petition?

20 A I saw that, yes.

21 Q Are you aware of this as a business strategy for  
22 Florida Power Corporation?

23 A Yes, I am.

24 Q Was that a factor in selecting the Hines 3 Unit?

25 A No. Hines 3 had been announced and in several

1 previous ten-year site plans as the Commission -- as I have  
2 explained to the Commission in the workshops, our total  
3 wholesale load was decreasing over time. Even through the  
4 decreasing of wholesale load over time there was a significant  
5 amount of retail growth increase, which is still driving the  
6 need for Hines 3. So the answer is no.

7 Q Would that mean that you would be planning on adding  
8 more plants then to meet the desire to increase the wholesale  
9 load in Florida?

10 A It depends on what happens with that wholesale load.  
11 We have been contacted by several groups of buyers that either  
12 are our customers or used to be our customers, and they were  
13 looking towards going to the IPPs or the merchants. They have  
14 decided that the IPPs and the merchants -- well, for one reason  
15 or another they are coming back to us and they are asking us to  
16 talk with them about increasing their existing contracts again.  
17 So they look at us as being more stable and more capable of  
18 providing their needs.

19 Q You would agree with me, would you not, that the  
20 selection of the Hines 3 unit is consistent with that business  
21 strategy of increasing wholesale sales in the State of Florida?

22 A Hines 3 has nothing to do with the increasing of the  
23 wholesale sales. Those articles came out recently and had to  
24 do with information and recent contacts from wholesale  
25 customers over the past couple of months. They were -- those



1 contacts have been after the RFP process, after the ten-year  
2 site plan process that dictated the need for Hines 3. It has  
3 nothing to do with wholesale load.

4 MR. MOYLE: If I can just have one quick minute.

5 BY MR. MOYLE:

6 Q Do you have information about the underfrequency  
7 issue?

8 A I have general information about it, yes.

9 Q I'm going to show you a document that was an answer  
10 to Interrogatory Number 33.

11 COMMISSIONER DEASON: Mr. Moyle, do you wish to have  
12 this identified?

13 MR. MOYLE: Please.

14 COMMISSIONER DEASON: Exhibit 3.

15 (Exhibit 3 marked for identification.)

16 BY MR. MOYLE:

17 Q Mr. Crisp, I am showing you what I would represent to  
18 be Florida Power Corporation's response to Interrogatory Number  
19 33. Are you familiar with this document?

20 A Yes, I am.

21 Q Okay. And is it true that the Westinghouse unit that  
22 you all are proposing be installed at Hines 3 is presently not  
23 warranted to meet the FRCC underfrequency requirements?

24 A Can you please restate that question, I'm sorry.

25 Q Sure. The Westinghouse unit that you all are going

1 to use in this thing, it doesn't presently meet the FRCC  
2 requirements for underfrequency, does it?

3 A We can change the relay on the Westinghouse unit to  
4 meet that criterion.

5 Q So is that a yes or a no? Do you presently meet the  
6 FRCC underfrequency requirements with this unit?

7 A This unit can have the relay switch to meet that  
8 criterion. There are two issues here. There is a reliability  
9 issue and a cost issue. As far as the reliability issue is  
10 concerned, the unit can be adapted to meet the criterion.  
11 First of all, let me state that for a less than 58 Hertz  
12 (phonetic) event, the last event for an underfrequency event on  
13 58 Hertz or less was in 1977, and that was on another system.  
14 Florida Power Corporation has never experienced an  
15 underfrequency event of the kinds that are being considered for  
16 this issue. Next of all, the unit can be switched to achieve  
17 the necessary criterion established by FRCC.

18 The other side of the issue is cost. And from the  
19 cost perspective Westinghouse is preparing information for us  
20 as to what will happen and what will be agreed to on the  
21 warranty side. Now, if you want to talk about reliability of  
22 units in general, this is one issue, and as I have said one  
23 issue happened, I think, in 1977 and it was on another system,  
24 it was not Florida Power's system.

25 Every day in the State of Florida a number of

1 different units operate. General Electric units are  
2 susceptible to a Z-notch (phonetic) blade problem, where the  
3 Z-notch joints where the blades are connected can collapse and  
4 be ingested into the system. They also have compressor blade  
5 rub problems where the blade tips --

6 Q Mr. Crisp, I didn't ask about the GE units. I'm  
7 asking about the Westinghouse units. I think we are getting a  
8 little far afield --

9 A I understand that.

10 Q Let me ask you this.

11 COMMISSIONER DEASON: The witness can answer the  
12 question. I will give him that latitude. You may continue,  
13 sir.

14 THE WITNESS: The GE units have issues with the  
15 compressor blade tips where those blade tips become brittle  
16 because they rub on the outside of the housing, and blade tips  
17 can be ingested into the engines. There are also hydrogen  
18 leaks on the GE generators. What I'm saying is that these are  
19 extremely complicated machines. Westinghouse machines, General  
20 Electric machines, they all have very, very technical  
21 components and you work through those issues one-by-one.

22 There is no particular unit that is better than  
23 another. You simply operate with the criterion of each one of  
24 those units, and you work on those units and you bring them up  
25 to speed and you make them run. You make them reliable. As

1 far as the underfrequency issue, as I said, Florida Power has  
2 never experienced an underfrequency issue less than 58 Hertz of  
3 the kind that is being considered under this issue.

4 BY MR. MOYLE:

5 Q You had indicated there was some concerns with GE  
6 machines in there. Do you have an opinion about which machine  
7 in more reliable, GE or Westinghouse?

8 A No, I do not.

9 Q Do you agree with the FRCC reliability requirements  
10 relative to underfrequency?

11 A That is not my job and it is not my decision to say.

12 Q But I'm asking you if you agree with them or not.  
13 You can answer it yes or no.

14 MR. SASSO: I would object for lack of foundation,  
15 given Mr. Crisp's prior answer.

16 COMMISSIONER DEASON: Lack of foundation.

17 MR. MOYLE: I thought he talked about the issue with  
18 respect to the question, and when he got off on the narrative  
19 about the FRCC reliability requirements. I think he has  
20 already --

21 COMMISSIONER DEASON: You need to go back and lay  
22 some foundation for this witness to answer that question, Mr.  
23 Moyle.

24 BY MR. MOYLE:

25 Q Are you aware of the FRCC requirements relative to

1 underfrequency?

2 A Yes.

3 Q Do you agree with the FRCC reliability requirements  
4 relative to underfrequency?

5 A Yes, but in a limited fashion. Because I think the  
6 issues out of which the underfrequency issue evolved were  
7 concerns from the State of California. May I elaborate on how  
8 this issue evolved?

9 COMMISSIONER DEASON: You can try.

10 THE WITNESS: From what I understand, out of the  
11 State of California there were a number of concerns about  
12 underfrequency ratings. That was because there was a  
13 significant amount of generation that was being played on the  
14 market, and it was being withheld from the market and there  
15 were forced outages on a regular basis or a loss of load on a  
16 regular basis, a day in/day out occurrence. And that was what  
17 was causing the underfrequency issues, and they were almost  
18 daily occurrences.

19 That level of concern is what has driven the industry  
20 to look at underfrequency as an issue. And what the 58 Hertz  
21 issue as far as underfrequency within Florida is concerned is  
22 trying to solve or adapt itself to conditions that may not ever  
23 appear in the State of Florida. And as I said, it hasn't  
24 appeared in Florida Power's territory ever.

25 So as far as FRCC being the reliability body for the

1 State of Florida, I have to agree with what they do and abide  
2 by what they do. Now, I may not necessarily agree with the  
3 fact that it is ever going to effect us or ever going be an  
4 issue. From the standpoint that it costs money to the  
5 ratepayer, I may not agree with the fact that achieving a 100  
6 percent reliability for all issues is worth the cost to the  
7 ratepayer. The ratepayer is paying for a huge insurance policy  
8 there.

9 BY MR. MOYE:

10 Q Okay. So, if I understand what FPC is agreeing or  
11 committing to this Commission to do, it is to not connect the  
12 Hines 3 generator to the grid until is in compliance with FRCC  
13 underfrequency standards, is that correct?

14 A That is correct. And it will be in compliance by the  
15 time it hits the ground.

16 Q But as we sit here today is it in compliance?

17 A The unit, the relay can be adapted and shifted to  
18 where it can be in compliance, yes.

19 Q Assume the relay is not put in place. As we sit here  
20 today, is it in compliance with the FRCC underfrequency  
21 standards?

22 MR. SASSO: Objection. Mr. Moyle is assuming facts  
23 that I don't believe are consistent with the testimony.

24 COMMISSIONER DEASON: Mr. Moyle, there has been an  
25 objection.

1 MR. MOYLE: I think I can come at it from another  
2 angle.

3 COMMISSIONER DEASON: Please do so.

4 BY MR. MOYLE:

5 Q You talked about a relay, that there is a relay that  
6 can be relied on to make this unit comply with FRCC  
7 coordinating council underfrequency standards, is that correct?

8 A Yes. And I may not have the exact terminology, but  
9 that is my understanding of it.

10 Q What is your understanding of this relay fix?

11 A What it does is it allows the unit to have a -- I  
12 believe it is a two second -- or, excuse me, it goes from one  
13 half to one second time delay in the event of a 58 Hertz  
14 underfrequency occurrence.

15 Q As we sit here today is the unit that you are  
16 proposing for Hines 3 currently speced with this relay in it?

17 A The spec is not addressed at all.

18 Q As we sit here today, is this unit that you are  
19 putting in place at the Hines 3 Unit, does it have this relay  
20 as part of it?

21 A I think you ought to ask Mr. Murphy about that. I  
22 don't know if it is an additional piece or not.

23 Q Do you know what the cost of this relay is?

24 A I don't think there is a cost associated with the  
25 adjustment.

1 Q Do you know that for a fact?

2 A I don't know that for a fact. I would ask Mr. Murphy  
3 that.

4 MR. MOYLE: I am just about done with your questions.  
5 I have one other exhibit that I want to introduce for you if  
6 you would just bear with me.

7 THE WITNESS: Certainly.

8 MR. MOYLE: This is a confidential exhibit.

9 MR. SASSO: Just to clarify, Mr. Chairman, we have  
10 reclassified this document as nonconfidential so it can be used  
11 freely.

12 COMMISSIONER DEASON: Very well.

13 MR. MOYLE: That will make it easier for me.

14 BY MR. MOYLE:

15 Q Mr. Stubbs (sic), can you identify this document that  
16 has been provided to you?

17 A Pardon me?

18 Q Could you identify this document that I just provided  
19 to you, had provided to you?

20 A It is a memo from Howard Stubbs to Tom Davis, and it  
21 says, "Tom, confirming our telephone conversation on Friday,  
22 please increase the heat rate, decrease thermal efficiency by 2  
23 percent, decrease the megawatt output by 2 percent for the  
24 Hines BB3 facility."

25 Q Do you know why this was done?





1 if cost were no object that demand-side or conservation  
2 measures could be increased by a great deal?

3 A If cost were no object. I'm having a difficult time  
4 with that, because I don't think that cost -- I don't think  
5 cost can be broken apart from reliability. Even if cost were  
6 no object, the ratepayers would still be concerned about our  
7 leaning on them for DSM. And as we would lean on them more  
8 during those peak periods using that DSM to support our system  
9 during the peak periods, like as in 1998 and 1999, they became  
10 frustrated and they started calling up and canceling their  
11 participation in the DSM programs.

12 And that is an instantaneous hit to our ability to  
13 serve load within the state. Once we start losing incremental  
14 megawatts of DSM, it takes a long time to go back and replace  
15 that with physical generation. So that's why the reliance on  
16 DSM is such a concern to us.

17 Q Are all of Florida Power Corporation's conservation  
18 or DSM programs voluntary?

19 A When you say voluntary, do you mean they call up and  
20 apply for it and receive some kind of rate incentive for it?

21 Q I think more like does Florida Power Corporation have  
22 the ability to force a customer to accept some type of  
23 demand-side management or conservation?

24 A No, we don't.

25 Q If the Commission were to order Florida Power

1 Corporation to increase demand-side management by some  
2 arbitrary number, say 20 percent, could you force customers to  
3 do that?

4 A No, we would have to incentivize them to do that.

5 Q And there would be a dollar cost associated with  
6 that, would that be correct?

7 A Correct.

8 Q And if I understand your testimony a minute ago,  
9 Florida Power would be concerned that the customers could be  
10 unhappy with being placed on those programs and ask to be taken  
11 back off, is that correct?

12 A That is correct.

13 Q Would it be fair to say that from Florida Power  
14 Corporation's perspective, there would be a trade-off in the  
15 cost-effectiveness of -- and I'm holding constant customer  
16 satisfaction, but a trade-off in the cost of demand-side  
17 management or conservation programs versus new generation?

18 A I'm not familiar with the latest numbers that were  
19 done in our rate impact measurement tests. I know that the  
20 cost for the DSM programs was starting to degrade compared to  
21 the cost for generation. In other words, it was more valuable  
22 to add the peaking generation than to continue pursuing the DSM  
23 programs, specifically because of the performance of the DSM  
24 programs.

25 Q So my question would be from Florida Power

1 Corporation's perspective, it does reach a point where it is  
2 most cost-effective to put new generation in than to increase  
3 demand-side management?

4 A That is correct, yes.

5 Q Thank you. A different line of questioning. Do you  
6 know when the ten-year site plan that first called for the use  
7 of Hines 3 approximately was issued?

8 A For Hines 3?

9 Q Yes.

10 A Let's see, I joined Florida Power Corporation, I  
11 believe, in 1999, and it was in the ten-year site plan at that  
12 time.

13 Q So it was at least three years ago?

14 A Yes.

15 Q Do you know when the RFP for the Hines Unit 3 was  
16 issued?

17 A Yes, it was in November of last year.

18 Q So about a year ago, less than a year ago, around a  
19 year ago?

20 A Yes.

21 Q Do you know when the systems reserve planning that  
22 selected use of Hines 3 was done?

23 A The system reserve planning?

24 Q I'm sorry, the systems planning that selected the  
25 Hines Unit 3 was done?

1           A     You mean the evaluation process that determined that  
2 Hines 3 was the best unit?

3           Q     Yes.

4           A     Yes. That was in this year, this current year, and  
5 the short list I believe was announced in April, and it was  
6 somewhat after, just a bit after that April time frame where  
7 Hines 3 was determined to be the best solution for the  
8 ratepayer.

9           Q     Do you know when the need for -- and I think I asked  
10 this question earlier. Do you know when the need for Hines  
11 Unit 3 or the 530 megawatts that Hines Unit 3 would bring was  
12 determined?

13          A     It has been in every -- as I said, it has been in the  
14 ten-year site plans each year. And the ten-year site plan,  
15 most recent ten-year site plan that was issued was issued in  
16 April of this year. All of the load forecasts that indicated  
17 that need for Hines 3 were done in January of this year,  
18 January of 2002. So it was long before the decision was made  
19 for Hines 3.

20          Q     Thank you. I have another set of questions I would  
21 like to ask if you are familiar with this. Are you familiar  
22 with or do you know of your own knowledge whether Florida Power  
23 Corporation currently has a permit for the use of groundwater  
24 for Hines Unit 3 cooling?

25          A     Yes. Florida Power Corporation has a groundwater

1 permit to extract up to 5 million gallons per day of  
2 groundwater.

3 Q Do you have that permit at this time?

4 A I believe we do, yes.

5 Q Are you aware of your own personal knowledge whether  
6 there is any hearings going on or comments from the water  
7 management district or environmental agency affecting that  
8 particular permit?

9 A No. Those particular discussions have to do with  
10 other issues, they do not have to do with Hines 3.

11 Q So is it your testimony that the permit you believe  
12 you have for Hines 3 is not affected at this point by any  
13 environmental considerations?

14 A That is correct.

15 Q And I have one last set of questions, and to the best  
16 of your knowledge you may not be the appropriate witness. Can  
17 you describe to me what load shedding is?

18 A Load shedding is an event where you exercise -- you  
19 drop load from your system. It could be for a variety of  
20 reasons, but mainly it is to stabilize the load service within  
21 your system, stabilize the transmission grid and the  
22 operational aspects, the relationship between the generating  
23 units and the transmission system.

24 Q Do you know or are you able to testify whether load  
25 shedding can be a solution to an underfrequency event?

1           A     Load shedding can be a solution to the underfrequency  
2 event. In other words, if you have, for instance, a  
3 500-megawatt unit and you do not want to pursue other  
4 alternatives to solve the underfrequency problem, you can shed  
5 an equivalent amount of load of that 500, so you could shed 500  
6 megawatts of load instantaneously and avoid the whole  
7 underfrequency issue altogether.

8           Q     As we sit here today does Florida Power Corporation  
9 have the ability to do that?

10          A     Yes, we do.

11          Q     Would it be fair to say that if Florida Power  
12 Corporation put in Hines Unit 3 with the discussion that we  
13 have had of the 58-megahertz underfrequency issue, Florida  
14 Power Corporation could make a decision to not affect that unit  
15 at all and instead shed the 530 megawatts of load  
16 instantaneously to avoid an underfrequency issue?

17          A     That is correct.

18               MR. HARRIS: I don't have any further questions.  
19 Thank you.

20               COMMISSIONER DEASON: Commissioners, questions. I  
21 have just a few questions.

22               I would direct your attention again to the answer to  
23 Interrogatory 33. This has been identified as Exhibit Number  
24 3. And at the very end of that response it indicates that  
25 Florida Power Corporation commits that Hines 3 will not be

1 connected to the grid until it is in compliance with the FRCC's  
2 underfrequency standards. That is still your testimony,  
3 correct?

4 THE WITNESS: That is correct.

5 COMMISSIONER DEASON: Do you know what is the cost of  
6 bringing Hines 3 into compliance with the underfrequency  
7 standards?

8 THE WITNESS: I don't know that there is a cost  
9 associated at this point, Commissioner Deason. And perhaps  
10 that question could better be addressed by Mr. Murphy.

11 COMMISSIONER DEASON: Mr. Murphy?

12 THE WITNESS: Yes, Mr. Murphy. Right now I don't  
13 believe there is a cost associated with it, and I think the  
14 testing that will go on in Berlin will determine if there is a  
15 need to address any further issues.

16 COMMISSIONER DEASON: Okay. I will ask Mr. Murphy.  
17 I'm going to ask you a question now that may be outside the  
18 scope of your responsibility, and if it is just so indicate and  
19 that will be fine. But if there is a situation where Hines 3  
20 is completed but it cannot be connected because the  
21 underfrequency standards cannot be met, what is the ratemaking  
22 implications of that? What I mean by that does Florida Power  
23 expect customers to pay for a unit that may be completed but  
24 not connected to the system?

25 THE WITNESS: I don't know the ratemaking



1 implications side of the business.

2 COMMISSIONER DEASON: Mr. Sasso, is there a witness,  
3 a policy witness that can answer that question, or is that  
4 beyond the scope of any of your witnesses' testimony?

5 MR. SASSO: It is beyond the scope, Commissioner  
6 Deason, because --

7 COMMISSIONER DEASON: And I understand you probably  
8 think is not relevant to this decision, but --

9 MR. SASSO: Yes. I understand the source of your  
10 question. The evidence that we have indicates that the unit  
11 can easily be brought into compliance currently at no or low  
12 cost. That there is every reason to believe that it can be  
13 connected without a compliance issue. And so what we are  
14 talking about is a contingency that we don't have any reason to  
15 believe would ever occur.

16 COMMISSIONER DEASON: Since it is such a small  
17 contingency you are probably willing to take the risk that if  
18 it does occur you wouldn't look to customers to pay for it  
19 then.

20 MR. SASSO: We will consider your question. Perhaps  
21 I can respond later in the proceeding.

22 COMMISSIONER DEASON: Very well. Make it clear I am  
23 not looking for you to testify, I am looking for you as a  
24 conduit to relay the company's policy decision on that small  
25 contingency.

1 MR. SASSO: I understand.

2 COMMISSIONER BAEZ: Commissioner Deason, I have a  
3 follow-up on that.

4 Mr. Crisp, going back to that last statement in the  
5 interrogatory, and I just want to have it clear in my mind,  
6 although I think Mr. Sasso has already somehow assured  
7 Commissioner Deason that that contingency is a fairly remote  
8 one. Does the meaning of FPC's commitment not to connect Hines  
9 3 to the grid until they are in compliance with the  
10 underfrequency requirements, does that create a possibility of  
11 having a need capacity-wise and then having that capacity  
12 created to address that need not available timing-wise?

13 THE WITNESS: Commissioner Baez, I believe that the  
14 intent of that sentence is to state exactly what it states. We  
15 intend for the unit to perform at that point in time. That is  
16 our confidence level. And the events, the underfrequency  
17 events, as I indicated before, are such a rare occurrence that  
18 we feel confident that Westinghouse will come back and we will  
19 be -- we will have the unit sync'd to grid under full  
20 requirements.

21 COMMISSIONER BAEZ: Thank you.

22 COMMISSIONER BRADLEY: Mr. Crisp, I believe you  
23 stated that to delay the construction of Hines 3 would increase  
24 the cost by approximately \$25 million, is that correct?

25 THE WITNESS: Yes, sir.

1           COMMISSIONER BRADLEY: Would you elaborate as to why  
2 the cost would increase by 25 million? And this is a one-year  
3 delay?

4           THE WITNESS: Yes, sir. What we would do in that  
5 event and the way we determined that number was we did two  
6 computer runs. Each of these computer runs is done to simulate  
7 the total production costs for the entire fleet over a 25-year  
8 lifespan. The first run included Hines 3 at the December 2005  
9 start-up commercial operation date. The second run delayed  
10 that commercial operation date one year. So, in other words,  
11 the unit was not available to dispatch into and meet load  
12 requirements for the system.

13           What happens is when you delay it for one year you  
14 dispatch off of the existing fleet that was in place at that  
15 2005 time frame. So there was a net \$25 million cost  
16 associated with delaying that, and that relates to the costs  
17 associated with production of electricity to meet the load  
18 without the Hines 3 unit available.

19           COMMISSIONER BRADLEY: And one other question.  
20 Explain what the plan is for Florida Power Corp to deal with  
21 the issue of water and having an adequate supply of water in  
22 order to operate the plant?

23           THE WITNESS: Yes, sir. Hines 3 has the permit for  
24 groundwater for up to 5 million gallons per day. So Hines 3 is  
25 fully permitted to extract up to 5 million gallons per day, and

1 that is a far greater amount than is needed to replenish the  
2 cooling pond for the amount of water that Hines 3 would  
3 consume. So we will pursue and use the groundwater permit that  
4 has been allocated to Hines 3, so there is no concern for Hines  
5 3 as far as water is concerned. The other issues that have  
6 been introduced have nothing to do with Hines 3.

7 COMMISSIONER BRADLEY: Okay.

8 COMMISSIONER DEASON: Redirect.

9 REDIRECT EXAMINATION

10 BY MR. SASSO:

11 Q Mr. Crisp, there has been a lot of discussion about  
12 our reserve margin planning criteria. Just to clarify, when we  
13 are talking about 15 percent or 20 percent, are we talking  
14 about a planning criterion that you use or other utilities  
15 might use in planning reserves for the system?

16 A Yes. This is a long-term planning approach that we  
17 use to satisfy the needs of peaking requirements for the  
18 system.

19 Q Now, there isn't any magic to any particular number,  
20 isn't it a matter of judgment?

21 A That is correct.

22 Q And you were asked about the discussions surrounding  
23 the reserve margin docket which culminated in the stipulation  
24 and you were a participant in those proceedings. Do you recall  
25 that Staff Witnesses Ballinger and Trapp had filed some

1 testimony in that docket?

2 A That is correct, there was testimony filed.

3 Q Do you recall that they had documented their concerns  
4 about the operation of Florida Power's utility and the other  
5 utilities in Peninsular Florida operating under a 15 percent  
6 reserve margin planning criteria?

7 A That is correct.

8 Q Do you recall that Mr. Trapp had offered his judgment  
9 that the planning criterion needed to be higher than 15  
10 percent, in the neighborhood of 20 percent?

11 A That is correct.

12 MR. MOYLE: Objection, leading.

13 COMMISSIONER DEASON: There has been an objection  
14 that the question is leading, but I think the answer is already  
15 stated in the record. I would just caution you to be aware of  
16 the nature of the questions you are asking and try to limit the  
17 leading nature.

18 MR. SASSO: Yes, Commissioner Deason, I will. I am  
19 taking advantage of the rule that says to expedite the  
20 testimony in noncontroversial areas, and I think this is all a  
21 matter of record but just by way of background.

22 BY MR. SASSO:

23 Q Now, did you take into account the concerns that had  
24 been expressed by the Staff witnesses and by the Commission at  
25 the time that you made the judgment that it was appropriate to

1 enter into that stipulation?

2 A Yes, we did.

3 Q Did you believe that there was some credence to those  
4 concerns and that they were concerns that the company should  
5 give serious consideration to?

6 A Yes, we did.

7 Q Now, you have testified about our operation or the  
8 company's operation under the 15 percent planning criterion for  
9 sometime, and I believe your testimony was that the lights  
10 won't necessarily go out at 15 percent, is that right?

11 A That is correct.

12 Q Now, does 20 percent give you more flexibility in  
13 managing your system than 15 percent with respect to the  
14 concern about protecting the customers from disruptions in  
15 service?

16 A Yes, it does. It gives us the ability to add the  
17 physical reserves into the system and better balance the  
18 physical reserves against the DSM amount.

19 Q Have there been situations during the time you have  
20 been with the company when you have been operating under a 15  
21 percent planning criterion where you would have liked to have  
22 had more flexibility in managing the system?

23 A Absolutely. '98 and '99 specifically were two years  
24 where we could have used the additional physical reserves.

25 Q Do you have an opinion as a planner and based on your

1 experience as a planner whether a 20 percent planning criterion  
2 is an appropriate planning criterion for purposes of ensuring  
3 the reliability of the system?

4 A For this system in its current state the 20 percent  
5 is very suitable.

6 Q Now, when you are making a judgment of that nature,  
7 do you take into account the circumstances of the system, for  
8 example, whether you are in a peninsular state or whether you  
9 have access to transmission from other systems?

10 A We take into account all manner of criteria to ensure  
11 that we can serve our load.

12 Q Does Florida, and does Florida Power System located  
13 in Florida, face special challenges by virtue of the fact that  
14 we are in an peninsular setting?

15 A Absolutely. The fact that we cannot use import  
16 capability as other systems can has a great impact on reserve  
17 margin capability. If you can't import into your system, then  
18 you must have generation within your system to serve all  
19 requirements, and that includes net firm load as well as all  
20 requirements that you have to have for your reserve margin.

21 Q Now, you have also testified about your interest in  
22 increasing the quality of your reserves, adding more physical  
23 reserves to the system. Does that concern exist independent of  
24 whether you are using a 15 percent or 20 percent planning  
25 criterion?

1 A Yes, it does.

2 Q Now, when you talk about increasing the physical  
3 reserves in the system, do you include when you speak of  
4 physical reserves, firm power purchase agreements as well as  
5 plants that the company builds and owns?

6 A Yes, we do. We do have firm purchased power.

7 Q So if a bidder had given the company a more  
8 attractive proposal than Hines 3, would the company have been  
9 satisfied to accept that given its concern about increasing  
10 physical reserves?

11 A Absolutely.

12 Q Now, you were also asked some questions about heat  
13 rates, and I understand that you deferred to Mr. Roeder about  
14 that, but I did want to clarify just one point. Do you have a  
15 copy of the need study in front you?

16 A Yes, I do.

17 Q Can you turn to Tab H in that need study, please.

18 COMMISSIONER BRADLEY: Repeat that, please.

19 MR. SASSO: Yes. I asked Mr. Crisp to turn to Tab H  
20 in the need study.

21 THE WITNESS: I'm there.

22 BY MR. SASSO:

23 Q Does that include a copy of the RFP used by the  
24 company on this project?

25 A That is correct.



1 Q Could you turn to Appendix Capital V or Roman numeral  
2 V-1, a description of Florida Power's next planned generating  
3 unit?

4 A I'm there.

5 Q Okay. Does this include some of the numbers that Mr.  
6 Moyle was asking about that were published in the RFP?

7 A That is correct.

8 Q Can you come down the page to where you see heat  
9 rate?

10 A Yes.

11 Q Would you read the line indicating what description  
12 or definition was used in that instance?

13 A It was 7,100 Btu per kilowatt hour at 80 percent NOF.

14 Q And what does NOF stand for?

15 A NOF is -- I'm drawing a blank there.

16 Q Net operating factor?

17 A Net operating factor, yes.

18 Q And that is a defined term so that we would have to  
19 have reference to that factor in understanding the meaning of  
20 that value of 7,100, is that right?

21 A That is correct.

22 MR. SASSO: No further questions.

23 COMMISSIONER DEASON: Exhibits.

24 MR. SASSO: Yes. We would move into evidence

25 Composite Exhibit 1.

1 COMMISSIONER DEASON: Without objection show that  
2 Exhibit 1 is admitted. Mr. Moyle.

3 MR. MOYLE: We would move in 2 and 3, please.

4 COMMISSIONER DEASON: Without objection show that  
5 Exhibits 2 and 3 are admitted.

6 Thank you, Mr. Crisp.

7 THE WITNESS: You're welcome.

8 (Exhibit 1, 2 and 3 admitted into the record.)

9 COMMISSIONER DEASON: We will take a ten-minute  
10 recess, and then we will reconvene and take up the next  
11 witness.

12 (Recess.)

13 COMMISSIONER DEASON: Mr. Sasso, you may call your  
14 next witness.

15 MR. SASSO: Yes, sir. Mr. Chairman, during the break  
16 I have consulted with my client and I can represent to the  
17 Commission a response to your question.

18 COMMISSIONER DEASON: Please do so.

19 MR. SASSO: Our position on that would be that,  
20 again, we have every expectation that the plant will be in  
21 compliance at the time it is connected to the grid. We  
22 understand that if some unanticipated event occurred and there  
23 were some difficulty in achieving compliance that the company  
24 would have the burden of establishing to the Commission any  
25 request for cost-recovery under the prudent standard, we



1 prefiled testimony, would your answers be the same?

2 A Well, I have a couple of corrections that I would  
3 like to make.

4 Q Okay. Go ahead and tell us what they are, please.

5 A The first one is a on Page 10, Line 2. The sentence  
6 at the end of Line 2 states, "NOI forms were received from 17  
7 bidders," and I would like to correct that to say, "17 NOI  
8 forms were received."

9 COMMISSIONER BRADLEY: Repeat that, please.

10 THE WITNESS: Yes, sir. The sentence currently  
11 states, "NOI forms were received from 17 bidders," and that  
12 should be, more correctly state, "17 NOI forms were received."

13 The second correction is on Page 13, Line 14, where  
14 the second sentence states, "Florida Power informed each of the  
15 seven bidders of the various deficiencies." And that should be  
16 restated to say, "Florida Power informed five of the bidders of  
17 the various deficiencies."

18 BY MR. SASSO:

19 Q With those corrections, Mr. Roeder, if I asked you  
20 the questions contained in your prefiled testimony, would your  
21 answers be the same?

22 A Yes, they would.

23 MR. SASSO: Mr. Chairman, we ask that Mr. Roeder's  
24 prefiled testimony as corrected be inserted into the record as  
25 though read.

1           COMMISSIONER DEASON: Without objection it shall be  
2 so inserted.

3 BY MR. SASSO:

4           Q     Mr. Roeder, have you submitted any exhibits with your  
5 prefiled testimony that you wish to sponsor today?

6           A     Yes, I have.

7           Q     Are those identified in your prefiled testimony?

8           A     Yes, they are. They are on Page 3 of my testimony.

9           Q     Can you describe those briefly, please?

10          A     Yes, sir. Exhibit DJR-1 is the results of detailed  
11 economic analysis. DJR-2 is the RFP evaluation process.  
12 DJR-3, the summary of proposals. DJR-4, threshold  
13 requirements. DJR-5, results of threshold screening. DJR-6,  
14 results of economic screening. DJR-7, results of optimization  
15 analysis. DJR-8, minimum evaluation requirements. DJR-9,  
16 technical criteria. And DJR-10, final results of technical  
17 evaluation.

18           MR. SASSO: We ask that these ten exhibits be marked  
19 for purposes of identification as Composite Exhibit 4.

20           COMMISSIONER DEASON: They shall be so marked.

21           (Composite Exhibit 4 marked for identification.)  
22  
23  
24  
25

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

DIRECT TESTIMONY OF DANIEL J. ROEDER

1                                   **I. INTRODUCTION AND QUALIFICATIONS**

2

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

4    A.    My name is Daniel J. Roeder and I am an employee of Carolina Power & Light  
5           (CP&L), 410 S. Wilmington Street, Raleigh, North Carolina, 27601.

6

7   **Q.    Please tell us your position with the CP&L and describe your duties and**  
8           **responsibilities in that position.**

9    A.    I am a Project Leader in the System Resource Planning Section of the System  
10           Planning & Operations Department. The System Resource Planning Section is  
11           responsible for the resource planning for both Florida Power Corporation (Florida  
12           Power or the Company) and CP&L systems. My responsibilities are usually of the  
13           nature of special projects, such as the Request for Proposals (RFP) that is the  
14           subject of this testimony. I served as the Project Leader and “Official Contact” for  
15           Florida Power’s Hines 3 RFP.

16

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

1 A. I graduated from the University of Tennessee with a B.S. in Engineering Science  
2 and Mechanics in 1980, and I obtained my M.S. in Mechanical Engineering in  
3 1982. I have been a CP&L employee since 1982 and, with the exception of a one-  
4 year rotational field assignment, I have worked the entire time in the System  
5 Planning & Operations Department, performing analyses such as production  
6 costing, generation reliability, integrated resource planning, and Clean Air Act  
7 compliance. During the year prior to the completion of the merger between  
8 Florida Power and CP&L, I was a core member of the Integration Team, working  
9 as an integration analyst. I am a registered Professional Engineer in the state of  
10 North Carolina.

11

12 **Q. In the time you have spent in System Planning & Operations, have you**  
13 **worked on any RFP before?**

14 A. Yes, I have participated in two of CP&L's RFPs. I was the Manager of the  
15 Resource Planning Unit and part of the team that developed CP&L's first RFP,  
16 which was issued in 1996, and for which I led the Economic Evaluation Team. I  
17 was involved to a lesser extent in the second RFP CP&L issued in 1997.

18

19 **II. PURPOSE AND SUMMARY OF TESTIMONY**

20

21 **Q. What is the purpose of your testimony?**

1 A. The purpose of my testimony is to describe Florida Power's RFP, the proposals  
2 we received in response to the RFP, the evaluation performed on the proposals,  
3 and the results of the evaluation.

4  
5 **Q. Are you sponsoring any sections of Florida Power's Need Study (JBC-1)?**

6 A. Yes, I am sponsoring Section IV, "Resource Selection—The 2005 Request for  
7 Proposals (RFP)" of the Need Study. I am also sponsoring the confidential  
8 Appendix J to the Need Study, "Description of Proposals."

9  
10 **Q. Are you sponsoring any exhibits?**

11 A. Yes, I am sponsoring the following exhibits:

12 Exhibit \_\_\_ (DJR-1) Results of Detailed Economic Analysis

13 Exhibit \_\_\_ (DJR-2) RFP Evaluation Process

14 Exhibit \_\_\_ (DJR-3) Summary of Proposals

15 Exhibit \_\_\_ (DJR-4) Threshold Requirements

16 Exhibit \_\_\_ (DJR-5) Results of Threshold Screening

17 Exhibit \_\_\_ (DJR-6) Results of Economic Screening

18 Exhibit \_\_\_ (DJR-7) Results of Optimization Analysis

19 Exhibit \_\_\_ (DJR-8) Minimum Evaluation Requirements

20 Exhibit \_\_\_ (DJR-9) Technical Criteria

21 Exhibit \_\_\_ (DJR-10) Final Results of Technical Evaluation

22 I prepared each of these exhibits, and each is true and accurate.

23



1 **Q. Please summarize your testimony.**

2 A. Upon determining the need for additional generating capacity as described in the  
3 testimony of John B. Crisp, Florida Power embarked upon the RFP process. The  
4 Company followed Rule 25-22.082 F.A.C. in the development and  
5 implementation of the RFP. We issued the RFP, providing the notification  
6 required by the Rule and information about the Company's self-build alternative,  
7 Hines Unit 3. We sought proposals that would be in service by December 1, 2005  
8 and that would be reliable, dispatchable, and technically sound. We were looking  
9 for the proposals to come from experienced, financially-sound developers that  
10 would be able to secure the necessary approvals and permits, and that had planned  
11 for an adequate fuel supply. We fairly evaluated all proposals by systematically  
12 following a structured, orderly evaluation process, which we identified in the  
13 RFP, including the criteria by which we evaluated the proposals.

14

15 **Q. Briefly, what were the results of your RFP?**

16 A. We received proposals from seven bidders. Two of the proposals were eliminated  
17 because they did not meet the basic informational requirements of the RFP. Of the  
18 five remaining participants, one proposal did not pass the Technical Evaluation.  
19 The remaining four proposals were put on the Short List and compared to our  
20 self-build alternative, Hines Unit 3. We performed a significant amount of  
21 analysis, evaluating the price and non-price attributes of the alternatives. The final  
22 evaluation of the non-price attributes showed Hines Unit 3 to be one of the top  
23 two ranked alternatives in all the categories. The detailed economic analysis

1 found Hines Unit 3 to be over \$92 million (2002 dollars) less expensive than the  
2 least cost alternative proposal. The least cost Greenfield Proposal (another  
3 combined cycle plant) was found to be more than \$187 million (2002 dollars)  
4 more expensive than Hines Unit 3. Exhibit \_\_\_ (DJR-1) shows the results of the  
5 analysis. Finally, we performed sensitivity analyses, in which we gave advantages  
6 to the third-party proposals by assuming decreases in their costs or increases in  
7 the costs associated with Hines Unit 3. In all cases, Hines 3 was the least cost  
8 alternative, demonstrating that the selection of Hines 3 is a sound choice. Based  
9 on the analyses, Florida Power concluded that Hines Unit 3 is the most cost-  
10 effective alternative for meeting the need for additional generating capacity in  
11 2005 to serve Florida Power's customers. My testimony will discuss all of the  
12 analyses we performed, in detail.

### 13 14 III. THE RFP PACKAGE

15  
16 **Q. How did Florida Power construct the RFP?**

17 A. The RFP Package consisted of four parts. The first part was the RFP Document  
18 itself, which outlined Florida Power's need for generating capacity, the objectives  
19 of the RFP, the Company's next-planned generating unit, and a schedule of key  
20 dates in the RFP process, and identified myself as the RFP contact. The RFP  
21 Document also discussed Florida Power's requirements for submission of bids,  
22 and it described the criteria that we would use to compare and evaluate the price  
23 and non-price attributes of the proposals. The second part was the Response

1 Package, which contained a description of the information bidders were to  
2 provide in their proposals. It defined the required organizational structure and  
3 contents of any submitted proposal and it contained instructions on how to  
4 complete the schedules (or forms) provided to the bidders. The third part  
5 consisted of the Schedules (Microsoft Excel worksheets) that bidders were  
6 required to use to provide data, including pricing, to Florida Power. The final part  
7 was a Microsoft Word version of the proposed Key Terms and Conditions of a  
8 purchased power agreement, supplied to bidders so they could provide comments  
9 in “red-line” form.

#### 11 IV. THE EVALUATION METHODOLOGY

12  
13 **Q. Did Florida Power provide a detailed description of the evaluation process it**  
14 **was going to use?**

15 A. Yes, we did. In the RFP, we described in detail the seven-step evaluation process  
16 we planned to use in the evaluation of the proposals.

17  
18 **Q. Please briefly describe the process.**

19 A. The process, described in detail in the RFP itself, is shown in flowchart form in  
20 Exhibit \_\_\_\_ (DJR-2). This is the same flowchart that was included in the RFP.  
21 Briefly, the seven steps of the process were:

22 1) Screening for Threshold Requirements. In this step, the proposals would be  
23 reviewed to ensure they met the informational requirements of the RFP. The

- 1 Threshold Requirements were provided in a table in the RFP Document such  
2 that the bidders could check to ensure their proposals fulfilled the  
3 requirements. Proposals not meeting the Threshold Requirements would be  
4 eliminated from further evaluation.
- 5 2) Segregation of Bids. In this step, proposals that passed the Threshold  
6 Requirements were to be separated into categories distinguished by the type of  
7 bid and term. The purpose of this step was to ensure a consistent and fair  
8 evaluation by categorizing “like type” proposals and allowing Florida Power  
9 to identify the best proposals in each category.
- 10 3) Economic Evaluation. In this step, the proposals would be screened based on  
11 the fixed, variable, and start payments. Proposals that were significantly  
12 higher in cost compared to other proposals would be eliminated from further  
13 evaluation.
- 14 4) Technical Evaluation. In this step, proposals that passed the Economic  
15 Screening would be evaluated on a technical basis to assess their feasibility  
16 and viability. Proposals were to be reviewed to ensure they conformed to the  
17 minimum evaluation requirements (which were different from the threshold  
18 screening requirements) and would be evaluated based on established  
19 technical criteria. Tables in the RFP provided both the minimum evaluation  
20 requirements and the technical criteria. Florida Power included a description  
21 of each of these non-price attributes, as well as the Company’s preferences  
22 with regard to the attributes.

- 1           5) Selection of Short List. In this step, those bids that were found inferior to  
2           other bids, based on the economic and technical evaluations, would be  
3           eliminated from further consideration.
- 4           6) Detailed Evaluation. In this step, proposals that were included on the Short  
5           List would be compared to Florida Power's self-build alternative, Hines Unit  
6           3. Proposals would be subjected to a more detailed assessment, and  
7           transmission cost impacts would be incorporated into the analysis. Sensitivity  
8           analyses would also be performed.
- 9           7) Selection of Final List. In this step, Florida Power would identify those  
10          bidders with which it would begin contract negotiation. In the event that none  
11          of the proposals was clearly superior to Hines Unit 3, a final list would not be  
12          selected. We also anticipated contract negotiations and an announcement of an  
13          Award List, but that was dependent on the results of the evaluation and would  
14          only take place if any of the proposals was superior to Hines Unit 3.

15

16

## V. THE RFP PROCESS: PRE-SUBMISSION

17

18   **Q.   Let's go through the RFP process. What was the first step?**

19   A.   The RFP process started with our announcement that we were going to be issuing  
20   an RFP for generating alternatives. We announced this using several methods,  
21   beginning with a press release on November 19, 2001. The press release was  
22   published or referred to in articles by a number of news services, both in print and

1 on-line, including the Southeast Power Report, Dow Jones Energy Services, the  
2 Tampa Tribune, Yahoo!Finance, and Morningstar.com.

3

4 **Q. Did you publish public notices as required by Rule 25-22.082?**

5 A. Yes, we did. We published public notices in newspapers of state and national  
6 circulation such as the Lakeland Ledger, Tampa Tribune, St. Petersburg Times,  
7 Orlando Sentinel, and the Wall Street Journal on various dates between November  
8 20-22, 2001. The notice provided a general description of the Company's next -  
9 planned generating unit, the name and address of the contact person from whom  
10 to request an RFP package, the Company's web site address where the RFP  
11 package could be obtained, and the schedule of critical dates for the RFP process.  
12 Fifty-five parties that had previously expressed an interest in other RFPs in the  
13 State of Florida were sent an electronic copy of the public notice, via e-mail.

14

15 **Q. When did Florida Power actually issue the RFP?**

16 A. The RFP package was issued on November 26, 2001 and it was available for  
17 downloading from the RFP web site. By December 19, 2001, 60 copies of the  
18 RFP package had been downloaded. We also filed the RFP package with the  
19 Florida Public Service Commission on December 20, 2001.

20

21 **Q. When did the potential participants get involved in the RFP process?**

22 A. The first major activity for bidders was to submit a Notice of Intent (NOI) to bid.  
23 Bidders were asked, but not required, to submit this form by December 10, 2001.

1 Submission of this form would ensure that bidders received all information  
2 pertaining to the RFP. NOI forms were received from 17 bidders.

3

4 **Q. Did Florida Power hold a Bidders' Conference?**

5 A. Yes, we held a Bidders' Conference on December 18, 2001 at the Tampa Airport  
6 Marriott. The purpose of the Bidders' Conference was to provide interested  
7 parties the opportunity to ask questions and seek additional information or  
8 clarification about the solicitation process. I made a brief presentation  
9 summarizing the RFP process, and then I opened the floor for questions. I  
10 provided answers to questions and promised to follow up with answers if I could  
11 not provide them at the time. While the bidders were encouraged to submit  
12 questions ahead of time, only one bidder provided written questions, and those  
13 questions were not received until an hour prior to the commencement of the  
14 conference. All questions and the corresponding answers were posted on the RFP  
15 web site shortly after the Bidders' Conference. The Q&A section of the web site  
16 was updated as additional questions were posed.

17

18 **Q. When did Florida Power receive proposals?**

19 A. We received proposals from seven bidders on February 12, 2002. The bids were  
20 labeled Bid A through Bid G based on the order in which they were opened.

21

22 **Q. What kinds of proposals did you receive?**

1 A. Five of the seven proposals were Greenfield Proposals (new construction) and  
2 two were System Power Proposals. All five Greenfield Proposals involved  
3 building new combined cycle units of approximately 500 megawatts (MW). One  
4 of the System Power Proposals offered to provide up to 200 MW from the  
5 bidder's system of power plants; the other proposed to use existing and proposed  
6 future plants to serve 500 MW of Florida Power's needs. A summary table of the  
7 proposals is provided in Exhibit \_\_\_\_ (DJR-3). (Please note that the table of  
8 proposals contains six Greenfield Proposals. As I will discuss in more detail later,  
9 this is because one of the bidders that provided a System Power Proposal later  
10 submitted a Greenfield Proposal, and it is included in this table for completeness.)  
11 Also provided in the exhibit is a list of the names of the bidders, listed in  
12 alphabetical, not Bidder A through Bidder G, order. A more detailed description  
13 of the proposals, based on summaries provided by the bidders, can be found in the  
14 confidential appendix of the Need Study.

15

## 16 **VI. THE RFP PROCESS: EVALUATION – THRESHOLD SCREENING**

17

18 **Q. What happened next?**

19 A. We began our bid evaluation process. The first step in the process was threshold  
20 screening. We evaluated all of the proposals with respect to the Threshold  
21 Requirements identified in Table IV-1 of the RFP document and shown in Exhibit  
22 \_\_\_\_ (DJR-4). Threshold Requirements represent the minimum requirements that  
23 all proposals are required to meet to be evaluated, and with which a Bidder's



1 compliance can be easily assessed. Some examples of Threshold Requirements  
2 are general requirements, such as the proposal being received on time, the  
3 submittal fee being included, and the power being available for delivery by  
4 December 1, 2005. Others include operating thresholds, such as operating the  
5 project to conform to voltage and frequency control requirements and agreement  
6 by the bidder to coordinate maintenance scheduling, and having control of the  
7 site. Another requirement was that the proposal had to have complete and credible  
8 answers provided to all questions.

9 The threshold screening provided a “sanity check” on the proposal. “Is  
10 everything here that we asked for? Do we have everything we need to perform our  
11 analyses?” If they didn’t pass the threshold screening based on our initial review,  
12 we went back to the bidders with questions in an effort to help them resolve the  
13 deficiencies in their proposals and to make sure we had everything we needed to  
14 conduct a thorough evaluation of the bids.

15  
16 **Q. What were the results of the threshold screening?**

17 A. A summary of the Threshold Requirements and the results of the threshold  
18 screening are shown in Exhibit \_\_\_ (DJR-5). Only two of the proposals initially  
19 passed the Threshold Requirements screening process without any deficiencies;  
20 however, all of the proposals required at least some clarification.

21 Two of the proposals were significantly deficient in meeting the  
22 informational requirements of the RFP. The proposal submitted by Bidder G  
23 included only the schedules and did not answer any of the questions or provide

1 any of the supporting information required in the RFP. Bidder G also did not  
2 provide the proposal submittal fee, and stated that it would provide the fee and  
3 supporting information only if it was placed on the Short List. Bidder G was  
4 reminded that the submittal fee and supporting information were threshold  
5 requirements and that if the proposal did not pass the threshold screening, its  
6 proposal would not be evaluated any further. Bidder G acknowledged this, but  
7 still declined to submit the fee or provide additional information. The other  
8 significantly deficient proposal, submitted by Bidder A, consisted of the forms  
9 (although some were incomplete, including pricing), and only a minimal amount  
10 of supporting information was provided.

11

12 **Q. Did Florida Power contact the bidders and inform them of deficiencies in**  
13 **their proposals?**

14 A. Yes. Florida Power informed each of the seven bidders of the various deficiencies  
15 in their proposals with respect to the threshold requirements. The Company also  
16 requested additional clarification from the two bidders that passed the threshold  
17 requirements screening.

18

19 **Q. How did the bidders respond to notification that their proposals had**  
20 **deficiencies in satisfying the threshold requirements?**

21 A. Five of the seven bidders submitted clarifications and additional information  
22 sufficient to pass the threshold requirements screening. The two bidders that  
23 submitted the significantly deficient proposals (Bidders A and G) chose not to

1 submit additional information and were thus eliminated from the RFP process.

2 The submittal fee was returned to Bidder A (Bidder G never paid the fee in the  
3 first place).

4

5 **Q. Did Florida Power have any concerns with any of the proposals that might  
6 not have been addressed by the Threshold Requirements?**

7 A. Yes. One of the System Power Proposals was to rely on a single existing plant and  
8 a number of proposed and under construction plants. Hence, the bidder of this  
9 proposal did not have an existing system of power plants sufficient to supply the  
10 approximate 500 MW need of Florida Power. The proposal did not fit the  
11 definition of a System Power Proposal; rather, it more closely fit the description  
12 of a Greenfield Proposal. Florida Power expressed its concerns about the proposal  
13 to the bidder and suggested that it resubmit its proposal as a Greenfield Proposal  
14 with all the appropriate schedules and information. The bidder subsequently  
15 submitted a new Greenfield Proposal, which we evaluated against the Threshold  
16 Requirements. The proposal failed to meet two of the requirements—it  
17 demonstrated neither site control nor a sufficient transmission plan. However, the  
18 bidder explained in its proposal that it was working on an agreement for the site,  
19 which it expected to complete within 60 days. Based on this, we decided to keep  
20 the bidder's proposal in the process and revisit this issue later in the process.

21

22

1           **VII. THE RFP PROCESS: EVALUATION – ECONOMIC EVALUATION**

2

3   **Q.     Please explain the economic evaluation process.**

4   A.     There were two parts to the initial economic evaluation process: a screening  
5           analysis and an optimization analysis. The screening analysis compared the five  
6           remaining proposals to each other in terms of \$/kW-year, based on the total prices  
7           proposed by the bidders and assumed capacity factors. The purpose of the initial  
8           economic screening was to see if any of the proposals were economically “out of  
9           line” compared to the other proposals.

10

11 **Q.     What capacity factors did you assume for your screening analysis?**

12 A.     We assumed capacity factors of 50 percent to 60 percent. These capacity factors  
13           were assumed because this is the range of expected capacity factors for Hines 3 as  
14           indicated in the Ten-Year Site Plan.

15

16 **Q.     What was the result of your analysis?**

17 A.     The evaluated costs of all five proposals were within a reasonable range of each  
18           other. Exhibit \_\_\_\_ (DJR-6) shows the results for the 60 percent capacity factor  
19           assumption. For comparison purposes, I’ve also included the estimated annual  
20           revenue requirements for Hines 3, based on both the estimated unit costs  
21           published in the RFP and the current estimates.

22           Since none of the proposals’ evaluated costs was extraordinarily high  
23           compared to the other proposals, we passed all five proposals on to the

1 optimization analysis. In addition, because of the small number of proposals, we  
2 decided to pass all five the proposals on to the Technical Evaluation.

3

4 **Q. What was the purpose of the optimization analysis?**

5 A. The purpose of the optimization analysis was to develop an optimal resource plan  
6 for each bidder's proposal assuming the proposal as a given. These resource plans  
7 would later be used in the detailed economic analysis. The optimization analyses  
8 were performed for a period of 25 years to capture all of the costs associated with  
9 each alternative, and, in particular, to determine the type of capacity that would  
10 fill out the study period after the end of the term of the proposed purchase. The  
11 "filler" supply alternatives that could be selected were generic combustion  
12 turbines and combined cycle units. As expected, the resource plans built around  
13 the Greenfield proposals were similar to each other.

14

15 **Q. Please explain the optimization analysis you performed.**

16 A. The optimization analysis was performed using the PROVIEW optimization  
17 model. While the screening analysis compared the proposals to each other based  
18 simply on the cost of the proposals in isolation, the optimization analyses assessed  
19 the impact of each proposal on total system costs. The impact on total system  
20 costs is important because it shows the net impact on the customer of choosing an  
21 alternative, including both the project cost and the impact the alternative would  
22 have on system operating costs. Such an analysis explicitly examines the relative  
23 impacts on system costs for fuel and variable O&M of the other units on Florida

1 Power's system, and any impact the alternative would have on Florida Power's  
2 purchased power costs.

3

4 **Q. Please explain what the PROVIEW model is and what it does.**

5 A. As I mentioned, PROVIEW is an optimization model, which we use to develop  
6 optimal resource plans, where the objective function is to minimize the  
7 cumulative present value of revenue requirements for the Florida Power  
8 generation system, subject to the 20 percent Reserve Margin constraint. Thus for  
9 each bidder's proposal, PROVIEW will tell us the optimal generation expansion  
10 plan for the 25 year study period, if we selected the bidder's proposed resource.

11 Inputs to the model include the load and energy forecast and the costs and  
12 characteristics (such as heat rates, outage rates, and maintenance requirements) of  
13 the existing generating units and purchase power agreements. A user also  
14 provides costs and operating characteristics of potential future generating  
15 resources, which could be generating units or purchases.

16 With these descriptions of the demand and existing and future resources,  
17 PROVIEW develops alternative resource plans to meet the projected future  
18 customer requirements using all possible combinations of resources, and it  
19 calculates the cumulative present value of revenue requirements for each  
20 combination. The model then sorts each alternative plan from lowest to highest  
21 cost. From an economics-only perspective, the lowest cost plan is the optimal  
22 plan.

23

1 **Q. What were the results of the optimization analyses?**

2 A. Exhibit \_\_\_ (DJR-7) shows the economic results of these optimization analyses.  
3 The costs are stated in terms of cumulative present value of revenue requirements  
4 for the total system. The top figure in the exhibit shows the total cumulative  
5 present value of revenue requirements associated with each alternative and the  
6 bottom figure shows the difference in cumulative present value of revenue  
7 requirements from a base case on an annual basis. The analysis shows that a  
8 resource plan built around Bidder E's proposal has the lowest future cost for the  
9 Florida Power customers of any of the responses we received to the RFP. We  
10 examined two alternative proposals from Bidder E: a five-year proposal and a 10-  
11 year proposal. The optimization analysis shows the five-year proposal to have  
12 lower costs than the 10-year proposal. Therefore, the detailed evaluation  
13 considered only the five-year proposal from Bidder E. For comparison purposes,  
14 the figures also show the costs associated with an optimal resource plan based on  
15 the addition of Hines 3. This analysis shows Hines 3 to be approximately \$90  
16 million less expensive than the least-cost proposal from Bidder E.

17

## 18 **VII. RFP PROCESS: EVALUATION – TECHNICAL EVALUATION**

19

### 20 **Methodology**

21 **Q. What was the purpose of the Technical Evaluation?**

22 A. The purpose of the Technical Evaluation was to assess the non-price attributes of  
23 the proposals by evaluating the quality of the proposals from a technical

1 perspective. There were two parts to the Technical Evaluation—one, the  
2 Minimum Evaluation Requirements and two, the Technical Criteria. (Note that  
3 these are different than the Threshold Requirements, discussed earlier in my  
4 testimony, which were designed to ensure that proposals contained all the  
5 information we needed to evaluate the proposals and that the proposals addressed  
6 the basic requirements of the RFP.) We used the Technical Evaluation to help us  
7 get to the Short List by ensuring that all the proposals that went to the Short List  
8 were technically viable.

9  
10 **Q. Briefly, what were the Minimum Evaluation Requirements?**

11 A. The Minimum Evaluation Requirements (MERs), which were provided in the  
12 RFP and are shown in Exhibit \_\_\_ (DJR-8), were the technical “must have”  
13 elements of a proposal. They were the components, or characteristics, the  
14 proposals had to have to move forward in the process. If a proposal did not meet  
15 one of the MERs, it would not make the Short List.

16  
17 **Q. How were proposals evaluated on the MERs?**

18 A. Each proposal was evaluated on each requirement on a “Go” / “No Go” basis.

19  
20 **Q. Briefly, what were the Technical Criteria?**

21 A. The Technical Criteria were characteristics (non-price attributes) we wanted  
22 proposals to have, and that would make a proposal more attractive to us. The  
23 criteria fell into three categories: operational quality, development feasibility, and



1 project value, as summarized in Exhibit \_\_\_\_ (DJR-9). While the Minimum  
2 Evaluation Requirements are the “musts,” the Technical Criteria are the “wants.”  
3 We didn’t necessarily envision that the Technical Criteria would eliminate anyone  
4 unless, of course, a proposal consistently ranked at the bottom of the pack. If a  
5 proposal didn’t have something we wanted or, perhaps, they had it but not to the  
6 quality we desired, we would ask the bidder about it, to see if they would be  
7 willing to improve their proposal in that respect.

8

9 **Q. How were proposals evaluated on the Technical Criteria?**

10 A. Each proposal was assessed on each criterion and the proposals were ranked  
11 relative to the other proposals. For criteria that only applied to Greenfield  
12 Proposals, the proposals were ranked from one to four; otherwise, they were  
13 ranked from one to five. In this ranking system, one is considered the best. This  
14 method of ranking the alternatives allowed us to see if any of the proposals were  
15 significantly better or worse than any of the rest, based on the Technical Criteria.

16

17 **Q. Did you use a weighting system to score the proposals?**

18 A. No, we did not.

19

20 **Q. If the criteria don’t have weightings and you don’t publish the weightings**  
21 **ahead of time, how were the potential participants to know what is important**  
22 **to you?**

1 A. For the Minimum Evaluation Requirements, since they were all “musts,” and  
2 since not having any one of them would keep a proposal from making the Short  
3 List, no one is more important than the others—they were all critical. In the  
4 discussion of the Technical Criteria in the RFP at pages IV-7 to IV-11, we stated  
5 our preferences with respect to each criterion. A successful RFP process will  
6 inform bidders to the maximum extent possible the preferences the evaluator has  
7 for each critical element. As examples, we stated that we preferred proposals that  
8 had no operating hours limits, and Bidders who had made greater progress in  
9 securing permits and approvals were preferred. Our objective was to balance the  
10 desirability of providing as much information about our preferences as possible  
11 with the opportunity to appropriately evaluate creative proposals and leave  
12 ourselves room to exercise our professional judgment. We believe that specifying  
13 a more prescriptive weighting and ranking scheme at the outset of the RFP  
14 process limits bidders’ flexibility to creatively add value to their proposals, thus  
15 distinguishing themselves from their competition.

16 I believe our RFP struck the right balance; we clearly stated the technical  
17 criteria and our preferences with respect to each one. Our ranking system allowed  
18 us to use our judgment to determine which proposals were better than the others  
19 for any given criterion. Looking at the rankings, we could determine if any  
20 proposal was significantly better than the others.

21

22 **Q. Who evaluated the proposals in the Technical Evaluation?**

1 A. We established separate teams staffed with personnel with expertise in the areas  
2 of development and construction, engineering (operations), environmental,  
3 financial viability, fuel, key terms and conditions, and transmission to review the  
4 proposals. Each of the teams received the executive summaries of the proposals  
5 and only those portions of the proposals that dealt with its area of expertise. The  
6 technical experts were instructed, to the greatest extent possible, to disregard  
7 anything they knew about the Hines Energy Complex. Only the economic  
8 evaluation team had access to the pricing proposals, since the other technical  
9 evaluators did not need to know the pricing proposals to perform the evaluation of  
10 the proposals on their technical merits. Thus, the technical evaluations were  
11 performed blind to the economics of the proposals. This was done to make the  
12 technical evaluation as impartial as possible.

13

14 **Minimum Evaluation Requirements**

15 **Q. Please explain the Minimum Evaluation Requirements in more detail. What**  
16 **were they and why were they important?**

17 A. There were nine MERs in six different categories: General Requirements,  
18 Environmental, Engineering and Design, Fuel Supply and Transportation Plan,  
19 Project Financial Viability, and Project Management Plan, as shown in Exhibit  
20 \_\_\_\_ (DJR-8). The MERs are what Florida Power feels are the most important non-  
21 price attributes of supply alternatives.

22 The general requirements MER was established to ensure the proposal was  
23 a valid proposal—it had to be reasonable and bona fide. There was no single item

1 the bidders had to provide to meet this requirement; rather, the proposal would be  
2 judged as a package on whether it was in keeping with the intent of the RFP and  
3 its terms and definitions.

4 The two requirements in the environmental category, that a preliminary  
5 environmental analysis had been performed and that a reasonable schedule for  
6 securing permits be presented to Florida Power, applied only to Greenfield  
7 Proposals. The purpose of these requirements was to ensure, to the greatest extent  
8 possible, the proposed project could obtain the necessary environmental permits.

9 There were also two requirements in the engineering and design category.  
10 The purpose of the requirements in this category was to determine if the proposed  
11 technology was viable from an engineering and operations perspective. To pass  
12 the requirements in this category, bidders had to provide an operation and  
13 maintenance plan indicating the project would be operated and maintained in a  
14 manner to allow the project to satisfy its contractual commitments, and bidders  
15 had to demonstrate the project technology would be able to achieve its operating  
16 targets.

17 For the fuel supply and transportation plan category, bidders of Greenfield  
18 Proposals had to provide a preliminary fuel supply plan that described the  
19 bidder's plan for securing fuel supply and transportation for delivery to the  
20 project. We evaluated the plans for reasonable assurance that the bidder had a  
21 plan and the experience necessary to implement the plan for fuel acquisition.

22 The purpose of the project financial viability MER was to ensure the  
23 bidder had the financial backing to construct and operate the project through the

1 term of the proposal. For Greenfield Proposals, evidence had to be provided that  
2 demonstrated the project would be financially viable. All proposals had to  
3 demonstrate that the bidder would have sufficient credit standing and financial  
4 resources to satisfy its contractual commitments.

5 The final component for the Minimum Evaluation Requirements applied  
6 to Greenfield Proposals only. Bidders of that type had to submit a construction  
7 management plan to show that the project could be built in time to serve Florida  
8 Power's need.

9  
10 **Q. How were the proposals evaluated with respect to the Minimum Evaluation**  
11 **Criteria?**

12 A. As I mentioned before, the proposals were judged on a "Go"- "No Go" (or Pass-  
13 Fail) basis. As discussed in the RFP Document, failure to demonstrate  
14 conformance with the MERs would be grounds for elimination from the process.  
15 Failing to meet a minimum requirement should result in the elimination of a  
16 proposal because it doesn't meet a minimum standard for a good project—one  
17 that Florida Power feels has a high probability of being able to get the necessary  
18 permits, approvals, financing, etc. to enable the project to be built in time to serve  
19 the needs of the Florida Power customers and one that will continue to be able to  
20 serve the customers over the term of the proposed contract.

21 For most of the requirements, the proposals were reviewed to see if they  
22 had the documents, schedules, or plans as I discussed above. For example, the  
23 fuel supply plan was to provide a description of the fuel delivery system to the

1 site, the terms and conditions of fuel supply and transportation arrangements, and  
2 the status of such arrangements. The project management plan required the  
3 bidders to provide a critical path diagram and schedule for the project that  
4 specified the items on the critical path and demonstrate that the project would  
5 achieve commercial operation by December 1, 2005. For requirements such as  
6 these, they either provided the information (and it was judged as acceptable), in  
7 which case they would pass; or they didn't provide the information (or it was  
8 deemed unacceptable), in which case they would fail. The evaluation teams used  
9 their years of knowledge and technical expertise to determine if the information  
10 provided was valid.

11

12 **Q. Did all of the proposals pass the Minimum Evaluation Requirements?**

13 A. All of the proposals, except one, passed the Minimum Evaluation Requirements.  
14 Bidder B did not meet the two requirements in the environmental category. In its  
15 proposal, Bidder B provided minimal environmental information. No information  
16 regarding the site was provided at all, because the site was under negotiation and,  
17 due to the nature of the negotiations, Bidder B would not disclose the exact site  
18 location.

19

20 **Evaluation of Technical Criteria**

21 **Q. Please explain the results of the second part of the Technical Evaluation, the**  
22 **evaluation of the proposals with respect to the technical criteria, in more**  
23 **detail.**

1 A. With respect to the Technical Criteria, the proposals were ranked relative to each  
2 other for each of the criterion. The proposals were evaluated in terms of 14  
3 technical criteria in three major areas: (1) operational quality, (2) development  
4 feasibility, and (3) project value. The evaluation criteria contained within these  
5 areas were identified in the RFP Document, and are included here as Exhibit \_\_\_\_  
6 (DJR-9). The RFP Document also discussed the purpose of each criterion and  
7 Florida Power's preferences.

8  
9 **Q. Please explain the operational quality factors you considered as part of the**  
10 **Technical Evaluation.**

11 A. The criteria that were evaluated in this area included:

- 12 • Minimum run-time constraint;
- 13 • Start time;
- 14 • Ramp rate;
- 15 • Maximum starts per year;
- 16 • Annual operating hours limit.

17 In general, these attributes measure the flexibility of the proposed unit to operate  
18 in ways that respond to changes in demand. Thus, we evaluated the proposals  
19 with respect to how long it would take to get the proposed unit started, how long  
20 it would take to get the unit up to the desired output level, how long the unit  
21 would have to run once it was started, the number of times in a year the unit could  
22 be started and stopped, and the number of hours in a year the unit could operate.

23

1 **Q. Please explain the factors you considered in development feasibility.**

2 A. This area of evaluation was our judgment of the bidder's ability to bring the  
3 proposed unit on line on time. We assessed the developer's plan to obtain the  
4 necessary land use and environmental permits, including a water supply, for the  
5 proposed project.

6 Another aspect of project feasibility is the developer's financial viability.  
7 We focused on the developer's financial capability and credit. If the bidder was  
8 proposing to obtain project financing for its proposal, we would focus on the  
9 financial viability of the proposal. If the bidder indicated it would be providing  
10 equity to the project or would be self-financing the project, we would also assess  
11 the bidder's ability to provide the required equity or financing.

12 We also evaluated the likelihood of the project coming on line on time by  
13 evaluating the developer's planned permitting, licensing, and construction  
14 milestone schedules.

15 Finally we considered the bidder's experience in successfully developing  
16 and operating a project of the magnitude proposed.

17

18 **Q. Please explain the factors you considered in project value.**

19 A. We evaluated five factors that fall within this category:

- 20 • Acceptance of key terms and conditions;
- 21 • Fuel supply and transportation reliability;
- 22 • Impact of a purchased power agreement on the Company's cost of  
23 capital;



- 1           • Flexibility provisions;
- 2           • Reliability assessment.

3           These are all factors that will ultimately affect the cost and flexibility of the  
4           project that we wanted to consider to see if one project provided a clearly better  
5           deal.

6

7   **Q.    To what key terms and conditions are you referring?**

8    A.    The RFP document included a set of terms and conditions of a power purchase  
9           agreement that would be critical to Florida Power. Bidders were instructed to  
10          mark the terms and conditions for any changes that they would like to make. We  
11          then evaluated the proposals on the extent to which the proposed deal was  
12          contingent on changing the key terms and conditions. The terms and conditions  
13          are too numerous to detail in my testimony but they cover subjects one would  
14          customarily expect to see addressed in a power purchase agreement and, as I  
15          mentioned, they were provided to the bidders as an integral part of the RFP.

16

17   **Q.    Didn't you evaluate fuel supply and transportation as part of the Minimum**  
18          **Evaluation Requirements?**

19    A.    Yes, we did. As I mentioned before, the MER was that they provide us a  
20          preliminary fuel supply plan. Here, we judged the quality of the plans and ranked  
21          the proposals relative to each other. We looked at matters such as the quality of  
22          the supply acquisition plan, their transportation plan, and the planned physical  
23          connection to the plant.

1 **Q. Please discuss your evaluation of the impact of a purchase on the Company's**  
2 **cost of capital.**

3 A. The impact of a purchase from a bidder on Florida Power's cost of capital was a  
4 criterion because of the requirement of Rule 25-22.081 for utilities to evaluate this  
5 impact if the capacity that is the subject of a Need Determination petition is the  
6 result of a purchased power agreement. The RFP requested bidders to provide a  
7 discussion of the potential for increases or decreases in Florida Power's cost of  
8 capital. Our task in this evaluation was to review and judge the bidders'  
9 discussion.

10

11 **Q. Was an "Equity Penalty" used in your analysis of each proposal?**

12 A. No. However, since most of the bidders said there would be no impact on the cost  
13 of capital, we felt we needed to supplement our review of the bidder's discussion  
14 to comply with the Rule. The bids were simply ranked based on the fixed costs (in  
15 terms of \$/kW-yr), the capacity of the project, and term proposed by the bidder.

16

17 **Q. How did you evaluate the contractual flexibility of each proposal?**

18 A. We considered the extent to which the bidder's proposal offered us flexibility in  
19 such areas as the number of years that could be contracted, the possibility of a  
20 buyout option, and the bidder's willingness to negotiate changes to other existing  
21 contracts with Florida Power. We also considered features of the projects  
22 themselves, such as having multiple delivery points, interconnections with more  
23 than one pipeline, and whether the project would be dual-fueled.

1 **Q. What did you examine in your reliability assessment?**

2 A. Here we considered the guarantee the bidder offered for the availability of the  
3 unit; that is, what percentage of time the bidder would guarantee that the unit  
4 would be there if we called on it. Specifically we did this by ranking the bidders  
5 based on the equivalent forced outage rate (EFOR) they offered to guarantee.

6

7 **Q. What did you find in your evaluation?**

8 A. The technical evaluation of the proposals uncovered some issues that needed  
9 further clarification from all of the bidders. With one exception, most of the issues  
10 were relatively minor. However, Bidder B's proposal had a number of issues that  
11 were critical in the areas of environmental permitting certainty, commercial  
12 operation date certainty, and financial viability.

13 Overall, the Greenfield Proposal results were mixed—no proposal was  
14 clearly the best proposal for all of the criteria. Furthermore, with the exception of  
15 the Bidder B proposal, the quality of each of the proposals was acceptable.

16

## 17 **VIII. THE RFP PROCESS: SELECTION OF SHORT LIST**

18

19 **Q. So far, you have explained the Threshold Screening analysis, the initial**  
20 **economic analysis, and the Technical Evaluation. Were you then ready to**  
21 **announce your Short List?**

22 A. Based on the results of the economic screening and optimization analyses, it may  
23 have been possible to exclude one or more of the proposals from the Short List

1 because of cost. However, because of the number of proposals remaining after the  
2 threshold screening, we decided not to eliminate any proposal at that point in the  
3 evaluation process based solely on economics.

4 The results of the Technical Evaluation, on the other hand, showed four of  
5 the five proposals to be technically viable. As mentioned before, Bidder B's  
6 proposal failed to meet two of the Minimum Evaluation Requirements in the  
7 environmental category. Furthermore, Bidder B also failed to demonstrate site  
8 control and did not provide a transmission plan, both of which were Threshold  
9 Requirements. These Threshold Requirements were initially suspended in the  
10 hope that Bidder B would be able to provide the required information later in the  
11 process. However, by the time the Short List was to be announced, Bidder B  
12 could not provide sufficient documentation. Thus, Bidder B was found to be  
13 inferior to the other proposals, and was not placed on the Short List.

14  
15 **Q. When did you notify the short-listed bidders of this decision?**

16 A. Bidders C, D, E, and F were notified on April 19, 2002 that they would be placed  
17 on the Short List. We officially announced the Short List on April 29, 2002.

18  
19 **Q. Did you tell the short-listed bidders anything else?**

20 A. These bidders were also provided with a list of questions for clarification or  
21 additional information derived from the technical evaluation of their proposals.  
22 The bidders were given 10 days to provide answers to the questions. At the same  
23 time, we informed the bidders that Florida Power was lowering the cost estimate

1 for Hines Unit 3 and that each of them could submit a revised bid, if they so  
2 desired, having full knowledge of the new lower value for the Hines 3 cost  
3 estimate. The Company encouraged the bidders to “sharpen their pencils” to see if  
4 they could reduce the prices in their proposals. Thus, each bidder on the Short List  
5 had an opportunity to beat the final cost estimate of Florida Power’s self-build  
6 option.

7  
8 **Q. Why did Florida Power lower the cost estimate of Hines 3?**

9 A. At the time the RFP was issued in November 2001, we did not have a detailed  
10 construction cost estimate from an EPC contractor. Thus, the costs and operating  
11 characteristics provided in the RFP represented the most current information we  
12 had at the time the RFP was issued, and were based on current market costs for a  
13 combined cycle unit based on “7F” gas turbine technology. After the RFP was  
14 issued, we received a detailed construction cost estimate from an EPC contractor  
15 based on using the gas turbines for which we held options. The operating costs  
16 and characteristics that were provided in the RFP were also revised for a  
17 combined cycle unit based on these gas turbines.

18  
19 **Q. Did the bidders have an opportunity to revise their prices?**

20 A. Yes, they did. During the Bidders’ Conference held in December, the bidders  
21 were told they could come in and lower their prices at any time during the  
22 evaluation process. When we provided them the new cost estimates for Hines 3 in  
23 April, we again invited the bidders to provide new prices. A 10-day time limit was

1 established. No bidder revised its prices within that time. However, one bidder  
2 (Bidder D) did provide a new price proposal 10 days after the expiration of the  
3 10-day time limit. Despite the untimeliness of the submittal, we used the new  
4 prices in our detailed evaluation.

## 6 IX. THE RFP PROCESS: EVALUATION – DETAILED EVALUATION

### 8 Methodology

9 **Q. Please describe the Detailed Evaluation analysis performed and the results of**  
10 **the analysis.**

11 A. The purpose of the detailed evaluation was to subject the proposals on the Short  
12 List to a more detailed assessment and compare them to Florida Power's self-  
13 build alternative, Hines 3, incorporating transmission cost impacts based on  
14 system impact studies. The detailed evaluation was performed using the most up-  
15 to-date information supplied by the bidders on the Short List. The bidders  
16 provided responses to the additional questions and clarification requests that, for  
17 the most part, pertained to the technical evaluation. However, in some cases, the  
18 clarification request included questions on the bidder's pricing proposal. Based on  
19 the bidders' responses, adjustments were made to the original pricing proposal to  
20 account for costs not included in the pricing sheets of the proposals, such as  
21 variable gas transportation costs.

22  
23 **Q. What were the tasks involved in the detailed evaluation?**

1 A. There were three main tasks: finalizing the Technical Evaluation, evaluating the  
2 transmission impacts of the proposed plants, and conducting the detailed  
3 economic analysis, which included detailed production costing and financial  
4 analyses.

5

6 **Finalized Technical Evaluation**

7 **Q. What did you do to finalize the Technical Evaluation?**

8 A. The Technical Evaluation of the proposals was updated based on the responses  
9 from the short-listed bidders to the requests for clarification and additional  
10 information. The bidders provided additional information that answered most of  
11 the Company's questions. However, a few questions remained. Florida Power  
12 then held conference calls with three of the four bidders to obtain final  
13 clarification on the remaining issues. After taking all the information into  
14 consideration, the Company revised the results of the technical evaluation. The  
15 Technical Evaluation of the short-listed proposals revealed no "show-stoppers."  
16 However, the ranking of the proposals on some of the criteria did change.

17 Finally, we also performed a self-assessment of Hines 3, and ranked it  
18 among the proposals. As can be seen in the final results, shown in Exhibit \_\_\_\_  
19 (DJR-10), Hines 3 ranked either first or second among the alternatives for each of  
20 the criteria. An evaluation of Hines 3 determined that it, like the short-listed  
21 proposals, would provide satisfactory operational quality. Because the Hines site  
22 was originally approved for 3,000 MW of generation and because environmental  
23 issues pertaining to development beyond Unit 1 were considered during the

1 original certification, many initiatives are underway or already completed. Thus,  
2 from an environmental perspective, the Hines site ranks highest among the  
3 alternatives. Compared to the other bidders on financial viability, Florida Power  
4 was ranked second and the same as Bidder F. Because of the existing site, which  
5 includes the presence of two gas pipelines, Hines Unit 3 ranks as the best  
6 alternative in terms of commercial operation date certainty. Relative to all of the  
7 alternatives, Hines 3 compares favorably on fuel supply and transportation  
8 reliability because of existing connections with two major pipelines. The Hines 3  
9 unit is considered to have “good” reliability, similar to that of the Bidder D and  
10 Bidder F proposals.

## 11 12 Transmission Analysis

### 13 **Q. Please describe the evaluation of the transmission impacts.**

14 A. Bidders of Greenfield Proposals were required to provide as part of their RFP  
15 Response Package detailed information regarding their proposed power plants to  
16 enable Florida Power to perform transmission system impact studies. The same  
17 types of studies were performed on the proposals as are performed when an IPP  
18 developer submits a generation interconnection request to Florida Power through  
19 FLOASIS. These studies included load flow, stability, and short circuit analyses  
20 and are necessary to determine the impacts on the transmission system of building  
21 the proposed power plants at the proposed sites.

22 In the analyses performed by Florida Power, each proposed plant was  
23 placed into the transmission system (Hines 3 was not part of the system



1 configuration) and the performance of the system with and without the proposed  
2 plant was compared. If overload situations were encountered in the simulations,  
3 determinations were made as to what actions would be required to integrate the  
4 proposed plant into the Florida Power transmission system.

5

6 **Q. Would any of the proposals require changes to the transmission system?**

7 A. Only Bidder C's proposal required changes to the Florida Power transmission  
8 system. The construction cost to integrate the plant into the system was estimated  
9 to be \$20 million, and these costs were included in the detailed economic  
10 evaluation of the proposal.

11

12 **Q. What kinds of actions were required to integrate the Hines 3 unit into the  
13 transmission system?**

14 A. In the final analysis, no changes were required to integrate Hines Unit 3 into the  
15 system. At the time the RFP was issued, transmission studies had shown that an  
16 upgrade to the Hines-West Lake Wales line, which was already in the  
17 transmission plan for 2007, would need to be advanced two years to be in service  
18 just prior to the unit coming on line. However, in mid-May the transmission  
19 planners determined that this upgrade was no longer required by the installation of  
20 the Hines 3 unit. This change was due to the commitment to the construction of a  
21 new 27-mile 230 kV line from the Florida Power Vandolah Substation to the FPL  
22 Whidden Substation, which is to be in service by the fall 2004. This new  
23 transmission line was associated with IPP transmission service contracts.

1 Specifically, the studies indicated that the installation of the Vandolah-Whidden  
2 230 kV line would push out the need for the Hines-West Lake Wales 230 kV line  
3 until at least Summer 2007. As such, the need for the Hines-West Lake Wales 230  
4 kV line was no longer attributable to Hines 3.

5

6 **Q. Did this change affect any of the proposals?**

7 A. Yes. Bidder D had proposed tying its plant into the Hines substation, thus having  
8 much the same impact on the transmission system as building Hines 3. Initially,  
9 we anticipated incorporating the same costs we were going to add to the Hines 3  
10 unit into our analysis of Bidder D. However, this change eliminated those costs  
11 from Bidder D's proposal also.

12

### 13 **Detailed Economic Analysis**

14 **Q. Please describe the detailed economic analysis of the proposals you**  
15 **performed.**

16 A. Detailed economic analyses were performed on all of the short-listed proposals  
17 and Hines 3. In contrast to the total system revenue requirements calculated by  
18 PROVIEW in the optimization analyses, in the detailed economic analysis we  
19 calculated the incremental system revenue requirements associated with each  
20 alternative.

21 The first step in the analysis was to perform detailed production costing  
22 analyses of the alternatives. Florida Power used the PROSYM model to perform  
23 the analyses. PROSYM is a detailed, chronological production costing model

1 (more detailed than the production costing model used in PROVIEW) that  
2 simulates each generating resource on the Florida Power system, both existing  
3 and future, and how it is used to serve the forecasted peak demand and energy  
4 requirements of Florida Power's customers. Each alternative (i.e., each of the  
5 proposals and Hines 3) was modeled as a separate case, which included the  
6 alternative and the future units as determined during the optimization analysis.  
7 We also modeled a "Base Case," which included a generic combined cycle unit  
8 with a December 1, 2005 in-service date. In order to treat all alternatives the same  
9 in the economic analysis, all cases were compared to the Base Case. The Base  
10 Case and the Hines 3 case were run through 2030, capturing the entire 25-year  
11 book life of a combined cycle unit. Since the resource plans reverted to the Base  
12 Case at the end of the terms of the proposals, the analysis of each proposal needed  
13 to be run only through the end of their respective terms.

14  
15 **Q. Fuel prices are usually a key assumption in these types of analyses. How did**  
16 **you handle fuel price assumptions?**

17 A. We used a combination of an initial price and an index to specify prices for fuel,  
18 fixed and variable O&M, and unit starts. Bidders were to provide an initial price  
19 (as of January 1, 2002) for each of these items and select an index that would be  
20 used to escalate the price they would receive such that it would track the  
21 appropriate cost. For evaluation purposes, we provided the escalation assumption  
22 in place of the index. Thus, for example, all alternatives using the gas index  
23 would escalate at the same rate. For payment purposes, the ratio of the actual

1 value of the index in the future to the value of the index in January 2002 would be  
2 used to escalate the initial price.

3

4 **Q. Why did Florida Power use such a pricing mechanism as opposed to just**  
5 **assuming all proposals using gas as the fuel have the same gas price forecast?**

6 A. Using an initial price and index mechanism for both evaluation and payment  
7 purposes benefits both the customers and the bidders by providing both specificity  
8 and flexibility. Bidders were required to “put a stake in the ground” and commit  
9 to an initial price (which should have been known or reasonably estimated at the  
10 time bids were to be submitted), yet were provided a way to take the guesswork  
11 out of trying to determine how costs would escalate in the future. The use of an  
12 index would allow a bidder to eliminate inflation and escalation risk from its  
13 proposal. If a bidder desired to take on inflation and escalation risk, it could  
14 specify a fixed escalation rate. The pricing mechanism employed in this RFP was  
15 designed to protect Florida Power’s customers and potentially eliminate a certain  
16 amount of risk for the bidders. More importantly, this approach would allow a  
17 bidder that felt its fuel procurement skills might be better than other potential  
18 participants to reflect that expertise in its proposal thereby bringing the value of  
19 that skill-set to Florida Power’s customers.

20

21 **Q. How were the results of the production costing analysis used?**

22 A. The results of the production costing analyses were incorporated into the financial  
23 analysis of each alternative. In addition to the production costs associated with

1 each alternative (that is, the energy charges of each proposal and the operating  
2 costs of Hines 3), the change in system production costs associated with each  
3 alternative, relative to the base case, were also a part of the financial analysis. The  
4 analysis must capture these costs because each alternative, due to its size, heat  
5 rate, proposed pricing, etc., causes the other resources of the Florida Power  
6 generation system to operate in a different manner, resulting in different total  
7 system production costs.

8  
9 **Q. Were any other cost impacts included in the analysis?**

10 A. Yes. The fixed costs of the alternatives (that is, the fixed charges of the proposals  
11 and the construction costs and fixed O&M costs of Hines 3) were captured in the  
12 financial analysis. As mentioned before, each alternative was compared to a Base  
13 Case that consisted only of generic future additions; thus, the fixed cost impact of  
14 changes to the base case resource plan had to be reflected in the analysis of the  
15 alternatives. In the Greenfield Proposals and Hines 3 cases, the changes in the  
16 resource plan were similar—they deferred the construction of a generic combined  
17 cycle unit until the end of the term of the proposal (or the end of the life of Hines  
18 3). The effect of Bidder E's 200 MW proposal was to advance a combustion  
19 turbine unit three years, defer one combined cycle unit one year, and defer  
20 another combined cycle unit one year.

21 The cost impacts of the changes in the resource plan were reflected in the  
22 financial analysis by way of an economic carrying charge, which is the same  
23 concept as the Value of Deferral used to determine standard offer rates. Because

1 the proposals had different contract lengths, using an economic carrying charge  
2 allows each of the alternatives to be evaluated consistently and eliminates  
3 problems associated with “end effects.” For the Greenfield Proposals and Hines 3  
4 cases, each received a credit for fixed cost savings equal to the economic carrying  
5 charge of a generic combined cycle unit (the unit being deferred in the Base Case)  
6 through the term of the proposal being considered. The economic carrying charge  
7 captured both the construction costs and fixed O&M costs of the generic  
8 combined cycle unit. Bidder E’s proposal received similar credits for the deferral  
9 of two combined cycle units for one year each; however, the additional cost of  
10 advancing a combustion turbine three years was also assigned to the proposal.

11

12 **Q. What were the results of the analysis?**

13 A. In terms of cumulative present value of revenue requirements, Hines 3 was found  
14 to be over \$92 million (2002 dollars) less expensive than the least-cost proposal  
15 (Bid E). Hines 3 was found to be more than \$187 million (2002 dollars) less  
16 expensive than the least-cost Greenfield Proposal (Bid D). The charts in Exhibit  
17 \_\_\_\_ (DJR-1) show the results of the analysis. The top chart in the exhibit shows  
18 the difference in the total cumulative present value of revenue requirements  
19 associated with each alternative compared to the Base Case. The bottom chart  
20 shows the difference in cumulative present value of revenue requirements  
21 compared to the Base Case on an annual basis. The results of the detailed  
22 financial analysis of the proposals and Hines 3 clearly demonstrate that Hines 3 is

1 the most cost-effective alternative for supplying generation to meet the needs of  
2 Florida Power's customers.

3

4 **Sensitivity Analyses**

5 **Q. Did you perform any sensitivity analyses?**

6 A. Two sensitivity analyses were performed on the proposals, both of which were  
7 done in an effort to make the third-party proposals appear more economically  
8 beneficial. One of the analyses was performed on Bid C and one was performed  
9 on Bid E.

10

11 **Q. Please explain the analysis performed on Bidder C's proposal.**

12 A. The sensitivity analysis performed on Bidder C's proposal postulated the effect of  
13 a tolling arrangement between the bidder and Florida Power. A tolling  
14 arrangement is one in which the party that is going to be taking the output of the  
15 plant also provides fuel to the plant. In this analysis, Bidder C's plant was  
16 assumed to be treated as a Florida Power asset for the purposes of fuel  
17 management. Thus, it was assumed to have the same fuel price as Hines 3 (which  
18 was lower than the fuel price quoted by Bidder C) and the same amount of firm  
19 gas transportation was reserved. The result of this analysis lowered the cost of  
20 Bidder C's proposal by \$63 million. Even with this assumed cost reduction, the  
21 cost of Hines 3 is lower than Bidder C's proposal by more than \$135 million.

22

1 **Q. Why was this analysis performed on Bid C? Could a tolling arrangement**  
2 **work for the other Greenfield Proposals?**

3 A. This sensitivity analysis was performed on Bidder C's proposal because they  
4 expressed an interest in a tolling arrangement with Florida Power. In theory,  
5 similar arrangements could be implemented with the other bidders as well, if both  
6 parties saw value in such arrangements. However, the other Greenfield Proposals  
7 quoted initial fuel prices that were lower than the fuel prices assumed for Hines 3,  
8 so assuming the same fuel prices as Hines 3 would have disadvantaged the other  
9 proposals.

10

11 **Q. What kind of sensitivity analysis was performed on Bid E?**

12 A. The sensitivity analysis performed on Bid E was the result of an alternative  
13 energy price forecast provided by Bidder E. In contrast to the Greenfield  
14 Proposals whose fuel price was tied to an index, Bidder E proposed a pass-  
15 through of the fuel portion of the energy price, based on the bidder's system  
16 average fuel and purchased power costs, as approved by the Florida Public  
17 Service Commission. Bidder E provided a forecast of its system average fuel and  
18 purchased power prices for Florida Power to use in the evaluation process. After  
19 Bidder E was placed on the Short List, Florida Power asked it questions regarding  
20 the assumptions used in the forecast of its system average fuel and purchased  
21 power prices. During this discussion, Bidder E requested to receive the natural gas  
22 price forecast Florida Power was going to use in its evaluation of the proposals.  
23 Florida Power provided this information to Bidder E. Several days later, Bidder E



1 provided the Company a new forecast of its system average fuel and purchase  
2 power prices that were based on Florida Power's natural gas price forecast. The  
3 new prices were approximately 10 percent lower than the original prices. Under  
4 the new price assumptions, the value of Bidder E's proposal improved by  
5 approximately \$2 million, resulting in Hines 3 being more than \$90 million less  
6 expensive.

7

8 **Q. Did you perform any sensitivity analyses on Hines 3?**

9 A. Yes, we did. We performed sensitivity analyses on the fixed O&M costs and the  
10 construction costs of Hines 3.

11

12 **Q. Please explain the analyses and the results.**

13 A. The first analysis assumed higher fixed O&M costs for the unit. The exact number  
14 of employees Florida Power plans to hire is uncertain at this time. Current  
15 expectations are between four and six, and four employees were assumed in the  
16 base analysis. Labor costs are the major component of fixed O&M costs. Thus, as  
17 a sensitivity, the fixed O&M costs were doubled, which would actually represent  
18 adding approximately eight employees. This was done just to be conservative.  
19 This assumption resulted in the cumulative present value of revenue requirements  
20 increasing by less than \$10 million (2002 dollars). This would reduce the  
21 advantage Hines 3 has over the next best alternative from \$92 million to \$83  
22 million.

1           The second sensitivity analysis assumed that the direct construction costs  
2 for Hines 3 were 10 percent greater than expected (approximately \$23 million  
3 more). This assumption increased the total construction costs of the unit by  
4 approximately \$26 million, and increased the cumulative present value of revenue  
5 requirements by almost \$27 million (2002 dollars). This would reduce the  
6 advantage Hines 3 has over the next best alternative from \$92 million to \$65  
7 million.

8           Assuming that both the fixed O&M costs doubled and the direct  
9 construction costs increased by 10 percent, the revenue requirements of Hines 3  
10 would increase by approximately \$36 million. This would reduce the advantage  
11 Hines 3 has over the next best alternative from \$92 million to \$56 million. The  
12 result of these sensitivity analyses, even when taken together, is that Hines 3 is  
13 still the most cost-effective alternative.

14  
15 **Q. Did you perform any other analyses?**

16 A. Yes. We used the goal seek function of Excel to determine what the construction  
17 cost of Hines 3 would have to be such that Hines 3 would have the same impact  
18 on revenue requirements as the next best alternative. To eliminate the \$92 million  
19 cost advantage that Hines 3 has over the next best alternative, the direct  
20 construction costs of Hines 3 would have to increase more than \$79 million, or  
21 approximately 35 percent. If fixed O&M costs are assumed doubled, the  
22 construction cost of Hines 3 could increase more than \$71 million (or 31 percent)  
23 and Hines 3 would have the same cost-effectiveness as the next best alternative.

1

2 **Q. Did this complete your economic analysis of the proposals?**

3 A. Yes, it did.

4

5

#### X. THE RFP PROCESS: SELECTION OF FINAL LIST

6

7 **Q. What was the final step in the Florida Power RFP process?**

8 A. The seventh and final step in the process was to select the Final List. However, as  
9 discussed previously and as stated in the RFP Document, in the event none of the  
10 proposals was clearly superior to Florida Power's self-build alternative, a Final  
11 List would not be selected. As I have demonstrated, all of the proposals were  
12 clearly inferior to Hines 3, and Hines 3 is the most cost-effective generating  
13 alternative. Thus, on June 7, 2002, Florida Power announced that it would build  
14 Hines 3 to meet the needs of its customers.

15

16 **Q. Does this conclude your testimony?**

17 A. Yes, it does.

1 BY MR. SASSO:

2 Q Have you prepared a summary of your testimony?

3 A Yes, I have.

4 Q Would you please give that summary to the Commission?

5 A Yes, sir.

6 Good morning Commissioners. Again, my name is Dan  
7 Roeder, and I am a project leader in the System Resource  
8 Planning Section of the System Planning and Operations  
9 Department for Florida Power and Carolina Power and Light. I  
10 served as the project leader and the official contact for the  
11 Hines 3 RFP.

12 After determining the need for additional capacity,  
13 as Mr. Crisp described, we started the RFP process. We  
14 followed this Commission's Bid Rule, 25-22.082, in developing  
15 and implementing the RFP. It all started on November 19th,  
16 2001, when we announced our intent to issue the RFP by  
17 distributing a press release which was published or referred to  
18 in articles in a number of news services. We also published  
19 public notices in newspapers of state and national circulation  
20 as provided for by the rule.

21 We issued the RFP a week later on November 26th,  
22 2001. At that time we made it available for downloading from  
23 our website. The first major activity for bidders was to  
24 submit a notice of intent to bid. We asked bidders to submit  
25 this form by December 10th, 2001, but we did not make this

1 mandatory.

2           We then held a bidders conference on December 18th,  
3 2001, at the Tampa Airport Marriott. The purpose of this  
4 conference was to give interested parties the opportunity to  
5 ask questions and seek additional information or clarification  
6 about the solicitation process. I made a brief presentation  
7 and then opened the floor for questions. I provided answers  
8 and promised to follow up if I could not give answers at the  
9 time. I posted all the questions and answers on our website  
10 shortly after the bidders conference. I updated the Q and A  
11 section of the website as additional questions were posed and  
12 answered.

13           On February 12th, 2002, we received proposals from  
14 seven bidders. We labelled the bids A through G based on the  
15 order in which they were opened. Five of the seven proposals  
16 were greenfield, in other words, new construction proposals,  
17 and two were system power proposals. All five greenfield  
18 proposals involved building new combined cycle units of  
19 approximately 500 megawatts.

20           We then began our evaluation process. The first step  
21 was threshold screening using the threshold requirements  
22 identified in the RFP. The threshold requirements represented  
23 minimum requirements that we expected all the proposals to meet  
24 in order to be evaluated. It provided a preliminary sanity  
25 check on the proposals. Only two of the proposals initially

1 passed the threshold screening process without any  
2 deficiencies, and all of the proposals required some  
3 clarification.

4           Two of the proposals were significantly deficient.  
5 The proposal by Bidder G included only the schedules for the  
6 forms and did not answer any of the questions posed in the RFP  
7 and they did not provide any of the required supporting  
8 information or pay the proposal submittal fee. Bidder A  
9 provided only some of the forms and had a minimal amount of  
10 supporting information. We informed each of the bidders of any  
11 deficiencies in their bids and requested additional clarifying  
12 information.

13           Five of the seven bidders submitted clarifications  
14 and additional information sufficient to pass the threshold  
15 screening. Bidders A and G chose not to do so and we  
16 eliminated them from the process. In fact, Bidder A withdrew  
17 its proposal and we returned its submittal fee. Bidder G, like  
18 I said, never submitted a submittal fee in the first place.

19           As it turns out, one of the two system proposals was  
20 not really a system proposal at all. It was based on a single  
21 existing plant and a number of proposed and under construction  
22 plants. Hence, the bidder did not have an existing system of  
23 power plants sufficient to supply 500 megawatts and was  
24 actually proposing to develop greenfield plants. We suggested  
25 that the bidder resubmit a greenfield proposal, and it did.

1           We put the proposal through our threshold screening  
2 evaluation and it failed to demonstrate sufficient site control  
3 or sufficient transmission plan. But based on the assurances  
4 by the bidder that they were being developed, we kept the  
5 bidder's proposal in the process.

6           We proceed to conduct an additional economic  
7 evaluation and technical evaluation of the five remaining  
8 proposals using the criteria we set forth in the RFP. Bidder B  
9 was never able to provide the missing information about site  
10 control or transmission, so we excluded them from further  
11 analysis.

12           On April 19th, 2002, we notified Bidders C, D, E, and  
13 F that we were placing them on our short list. At the same  
14 time we requested additional information and advised them that  
15 we had been able to obtain revised cost estimates for Hines 3  
16 lowering the projected cost of the unit. We were able to  
17 revise these estimates based on information we received from an  
18 EPC contractor and from the vendor of our combustion turbines.

19           We advised each of the bidders that they could submit  
20 a revised bid if they chose to do so with the benefit of the  
21 information about the new lower cost estimates for Hines 3. In  
22 fact, we encouraged them to go back and sharpen their pencils.  
23 Only one bidder, Bidder D responded by providing a new price  
24 proposal.

25           At that point we conducted a detailed evaluation of

1 all the bids and compared them to our self-build alternative,  
2 Hines 3. In terms of cumulative present value of revenue  
3 requirements in 2002 dollars, Hines 3 was found to be over \$92  
4 million less expensive than the least-cost proposal which was  
5 the true system proposal submitted by Bidder E. Hines 3 was  
6 found to be more than \$187 million less expensive than the  
7 least-cost greenfield proposal from Bidder D. Even after  
8 conducting sensitivity runs that favored the bidders, Hines 3  
9 was hands down the most cost-effective choice for our  
10 customers.

11 In conclusion, our objective going into this process  
12 was to pick the very best option for our customers, whether  
13 that option came from Florida Power or a third-party supplier.  
14 I believe we followed this Commission's bid rule carefully and  
15 we met the objective I described. Thank you.

16 MR. SASSO: We would make Mr. Roeder available for  
17 cross-examination at this time.

18 COMMISSIONER DEASON: Mr. Moyle.

19 MR. MOYLE: Thank you.

20 CROSS EXAMINATION

21 BY MR. MOYLE:

22 Q I want to follow-up on a few things that you had  
23 mentioned in your opening statement and then I will get into  
24 some issues you addressed in your testimony. Am I correct you  
25 all received seven bids in response to the RFP?



1 A Yes, sir.

2 Q And that was one of the corrections you made to your  
3 testimony to clarify that seven were received?

4 A No, sir. One of the corrections I made had to do  
5 with notice of intent forms that we received. And the  
6 testimony originally said we received notice of intent forms  
7 from 17 bidders. And I corrected it to say we had 17 NOI forms  
8 that we received.

9 Q Okay. So at the end of the day seven folks submitted  
10 bids?

11 A Yes, sir.

12 Q How did that comport with any expectations you had  
13 about the response to the RFP?

14 A That's a hard thing going into an RFP to try and  
15 figure out how many will we get. You hope for a lot so you get  
16 a good representation of alternatives. We didn't have any  
17 preconceived idea of how many we might expect. We saw Florida  
18 Power and Light had quite a few responses.

19 Q How many did they have, was it something like 17 or  
20 18?

21 A I don't know the answer to that, sir.

22 Q Were you surprised that you received only seven bids?

23 A Again, we didn't have any preconceived idea of how  
24 many we were going to get. I guess I would say I was surprised  
25 in that if you compare it to what Florida Power and Light got,

1 that we didn't get that many.

2 Q You eliminated one proposal because it didn't meet  
3 the technical evaluation requirements, and I asked Mr. Crisp  
4 about that and I think he punted to you. So you are the  
5 recipient of the ball, and let me ask you that same question.  
6 You eliminated one proposal because it didn't meet certain  
7 technical evaluations, is that correct?

8 A Yes, sir, that is correct.

9 Q And it didn't demonstrate site control?

10 A Yes, sir, that is correct. It neither had site  
11 control or a transmission plan.

12 Q Do you know was it a situation where they were just  
13 unwilling to tell you where the project was located for  
14 competitive reasons or they simply did not have site control,  
15 do you know?

16 A I don't know that it was because of competitive  
17 reasons. They told us -- when we asked for additional  
18 information from them, they told us the approximate location of  
19 it, but they also said that they were working with -- it may  
20 have been the Florida Department of Environmental Protection on  
21 that site, that there was going to be some site remediation that  
22 needed to be done. But in their statement they said something  
23 to the effect of they did not even have anything in writing yet  
24 as to the agreement that they would have to get that site. So  
25 they basically said this is where we are trying to put it, but

1 we don't even know if we -- we don't have any agreement on  
2 actually using that site yet.

3 Q So it wasn't a situation where they said we have  
4 control of it, but we don't want to tell you where it is at  
5 this point?

6 A That is not the case, no. They just did not have  
7 control of it.

8 Q I got you. Now, with respect to this frequency  
9 issue, underfrequency issue, are you conversant with that  
10 topic?

11 A No, sir.

12 Q You were the point person in charge of the RFP,  
13 correct?

14 A Yes, sir, that is correct.

15 Q And it was -- the RFP was developed by you, Mr.  
16 Sasso, who is a lawyer, and another FPC lawyer, and Mr. Crisp,  
17 is that right?

18 A That's correct.

19 Q And this was modeled after an RFP that Carolina Power  
20 and Light had conducted?

21 A Yes, sir, that is correct.

22 Q You are also sponsoring the resource selection  
23 portion of the need study, is that correct, Pages 38 to 44?

24 A I believe that is Section 4 or 5, maybe. Let me  
25 check.

1 Q Why don't you tell me what section of the need study  
2 you are sponsoring?

3 A I believe my testimony says what that is. Section 4,  
4 resource selection. The 2005 request for proposals, RFP.

5 Q There is attached to your testimony the last exhibit,  
6 it is DJR-10?

7 A Yes, sir.

8 Q Let me direct you to that. See under the technical  
9 criteria down there toward the end of the page?

10 A Yes, sir.

11 Q You ranked, I guess, bids C, D, E, F, and Hines on a  
12 one to five basis essentially, correct?

13 A They were ranked one to five if all five of them --  
14 if a certain criteria was applicable to all five of them.  
15 There are some where you can see N/A. And if there was like,  
16 for example, on permitting certainty, the first one, there is  
17 only four of the alternatives would apply to that criteria, so  
18 they would have been ranked one to four.

19 Q Is one the best?

20 A One is the best; yes, sir.

21 Q Who put these numbers -- who assigned these numbers  
22 to the bids?

23 A The numbers were assigned by the RFP team.

24 Q Okay. And that was the team you were in charge of?

25 A Yes, sir.

1 Q So at the end of the day would it be fair to say that  
2 you reviewed the assignment of these numbers and concurred in  
3 how they were ranked and rated?

4 A Yes, sir, that is correct.

5 Q And in doing that did you review information that  
6 your team had prepared?

7 A I reviewed it, yes, and we talked about it in a  
8 meeting.

9 Q Okay. Just give me a general description about the  
10 kind of information that your team put together for your review  
11 and why that was done? I have seen some summaries of things  
12 that the team put together and they talked about the pluses and  
13 the cons of it. I presume that type of information went to you  
14 for your review?

15 A Yes, sir. I asked them to provide me summaries of  
16 their evaluation of the proposals.

17 Q And why did you ask that they do that?

18 A So we would -- I could have it altogether and use if  
19 we needed it in presentations or as for backup.

20 Q Okay. And you relied on that type of information,  
21 did you not, when you were reviewing the results of the  
22 technical evaluation team's consideration of the bids?

23 A I asked them to provide that information to me so I  
24 could also distribute it to the other team members so that when  
25 we had our meeting to discuss the technical evaluations

1 everyone would have the summaries together.

2 Q Okay. And those summaries were information you  
3 relied on, correct?

4 A That the team relied on, yes.

5 Q And you were the leader of the team?

6 A Yes, sir.

7 Q The fuel supply and transportation reliability  
8 agreement -- I'm sorry, the fuel supply and transportation  
9 reliability, Technical Criteria Number 7?

10 A Yes, sir.

11 Q FPC ranked number one in that?

12 A Yes, sir.

13 Q And did you agree with that ranking?

14 A Yes, sir.

15 Q Was that recommended to you by your fuel witness?

16 A No, sir. My fuel witness was not part of the RFP  
17 team.

18 Q Okay. I'm going to come back to that fuel question  
19 in a minute. But to move along, let me ask you a couple of  
20 questions about water. The ability to obtain water for the  
21 project, that was something that was considered in evaluating  
22 bids, correct?

23 A Yes, sir.

24 Q And who evaluated that aspect of the bids?

25 A The specific person or what area?

1 Q The specific person.

2 A That was Ms. Patricia West.

3 Q Okay. So, Mr. Hunter, the environmental witness  
4 today, he was not involved in that evaluation?

5 A He may have been involved in that, but Patty West was  
6 the point person on the environmental evaluation.

7 Q We had a chance to talk a few days ago in your  
8 deposition, do you recall that?

9 A Yes, sir.

10 Q And I asked you some questions at that time about  
11 water and you were not particularly knowledgeable about water,  
12 is that correct?

13 A Yes, sir, that is correct.

14 Q So as we sit here today you don't have any firsthand  
15 knowledge about the water supply for either the Hines 3 unit or  
16 the outside bids, do you?

17 A No, sir, not the technical details.

18 Q Okay. There has been some discussion already today  
19 about how the costs are assigned for certain facilities that  
20 are in place at the Hines Energy Complex. Do you remember  
21 hearing that conversation?

22 A Yes, sir.

23 Q And indeed there are a number of common facilities  
24 that are being used at the complex that will also benefit Hines  
25 3 as well as Hines 1 and 2, correct?

1 A That is correct.

2 Q Can you give me those facilities, name them?

3 A Pardon me?

4 Q Can you name those facilities that will be beneficial  
5 to all three?

6 A Well, I believe there is the general infrastructure  
7 that is there at the plant, so the plant site itself. Roads,  
8 probably some fuel handling equipment, things of that nature.  
9 I believe Mr. Murphy addresses that is in his prefiled  
10 testimony.

11 Q Okay. I may ask him some questions. But the fuel  
12 storage, that would be one that would be common, the oil  
13 storage facility?

14 A Yes, sir.

15 Q And the cooling pond, that would be another?

16 A Yes, sir.

17 Q Now, when we talked the other day you had not been  
18 out to the site. Have you had a chance to review the site  
19 since our deposition?

20 A No, sir, I have not.

21 Q So if I asked you questions about the cooling pond  
22 that would not be based on your having been to the site, it  
23 would be based on photographs or reading information about it?

24 A That is correct.

25 Q Did you consider ascribing any costs of the cooling



1 pond to the Hines 3 Unit when you were evaluating bids?

2 A Not the existing cooling pond, no, sir. That is a  
3 sunk cost and it is not germane to our evaluation on an  
4 incremental basis.

5 Q How about the oil storage facility?

6 A The oil storage facility itself, the tank, we did not  
7 include the cost of that tank either.

8 Q And for the same rationale?

9 A Yes, sir. We did include some cost for oil to go  
10 into that tank for Hines 3.

11 Q I'm sorry, could you clarify that.

12 A I said we included some of the cost of the oil that  
13 goes inside of the tank for Hines 3 in inventory.

14 Q How did you split that up?

15 A That was one-third of that tank, of the oil in that  
16 tank.

17 Q Using that rationale, would it also be fair to  
18 ascribe one-third of the cost of the water to the cooling pond  
19 that is in use at the facility in your opinion?

20 A The water itself or the cooling pond?

21 Q The water itself.

22 A I believe we did have as part of our variable O&M  
23 costs included costs of the water to some extent.

24 Q What were those costs?

25 A I do not know off the top of my head.

1 Q Can you look at something to give you that  
2 information?

3 A No, sir. It was not broken out separately in any of  
4 the information that I have.

5 Q So with respect to one-third of the cost of water  
6 that is going to be contained in that cooling pond, there is no  
7 document or no information you can give that represents that  
8 cost?

9 A No, sir, I don't think -- maybe I misspoke, or  
10 misrepresented it, or whatever, but it is not so much the water  
11 that is in the cooling pond, it is probably more related to the  
12 water that gets consumed. On the variable O&M costs, what we  
13 did was we know what the costs are for Hines 1, and what we did  
14 was we assumed those costs were the same for Hines 3 in terms  
15 of dollars per megawatt hour.

16 Q All right. Along this line of questioning I want to  
17 show you a document that is a confidential document. We will  
18 go ahead and have this introduced or provided to you and the  
19 Commissioners and Staff. And when we discuss this, if there is  
20 confidential information, I obviously don't want you to reveal  
21 that. You need to be careful as we walk through it.

22 And given your previous answer, your counsel may look  
23 at it and make a determination that it is or is not  
24 confidential. I would like to go ahead and have this marked as  
25 Exhibit 4.

1 COMMISSIONER DEASON: No, it will be identified as  
2 Exhibit 5.

3 (Exhibit 5 marked for identification.)

4 MR. SASSO: This has also been reclassified and  
5 reproduced as a nonconfidential document.

6 COMMISSIONER DEASON: Very well.

7 BY MR. MOYLE:

8 Q Mr. Roeder, I want to draw your attention to the  
9 second point in this e-mail. This e-mail, you received a copy  
10 of it, did you not?

11 A Yes, sir, I did.

12 Q And you are familiar with it?

13 A Yes, sir, I am.

14 Q Okay. It says for RFP evaluation purposes it would  
15 be appropriate to assume that one-third of the storage tank oil  
16 could be charged to a Hines PB3 project, correct?

17 A Yes, sir.

18 Q Was that done?

19 A Yes, sir, it was.

20 Q How much was that?

21 A We approximated that to be \$1 million.

22 Q Was there any other component that you are aware of  
23 where a portion of the cost was ascribed to Hines 3?

24 A Not that I am aware of.

25 Q It was just in this one instance that you are aware

1 of?

2 A Yes, sir.

3 Q And with respect to water, just so I'm clear, it is  
4 your testimony that some water costs were put into the RFP  
5 evaluation for Hines 3, it's just you are not sure of the  
6 dollar amount?

7 A In that the variable O&M charge for Hines 1 includes  
8 some cost of water and we use that number also for Hines 3,  
9 then that would be in there.

10 Q The evaluation process that you were in charge of, it  
11 had seven steps, correct?

12 A Yes, sir.

13 Q Describe for me Step Number 7, please?

14 A May I refer to my testimony?

15 Q Sure. I had it marked at Page 8.

16 A Okay. Step 7 was selection of finalists, and in this  
17 step Florida Power would identify those bidders with which it  
18 would begin contract negotiation. In the event that none of  
19 the proposals was clearly superior to Hines 3, a final list  
20 would not be selected. We also anticipated contract  
21 negotiations and an announcement of an reward list, but that  
22 was dependent on the results of the evaluation and would only  
23 take place if the proposal was superior to Hines 3. It  
24 probably should say were superior.

25 Q And did you ever get to Step 7 in your process?

1 A No, sir, we did not.

2 Q So you never had negotiations that were contemplated  
3 in this step?

4 A We never held any negotiations, no. Because we found  
5 that Hines 3 was at a minimum \$92 million on a cumulative  
6 present value of revenue requirements basis better than the  
7 next best proposal, we deemed it wasn't necessary to go to that  
8 step.

9 Q What would have had to have happened in your mind for  
10 a proposal to be clearly superior to Hines 3?

11 A They would have to show the economics would have to  
12 be better than Hines 3. On the technical side, they would have  
13 to show that it was as good as Hines 3, it was an acceptable  
14 proposal. It wasn't -- I think if the proposal ranked very  
15 poorly on the technical evaluation side, we would sort of look  
16 at the economics and kind of wonder, well, is that why it is so  
17 much better on the economic side.

18 Q Okay. So for a bid to be clearly superior the  
19 economics would have had to have been better and the technical  
20 aspects would have had to have been equal to or better than the  
21 Hines 3?

22 A They would have to be acceptable on the technical  
23 side, yes.

24 Q Now, with respect to the economics, I read your  
25 testimony and there was some reference in there to a cost of

1 capital which has also been called, and I think in your  
2 testimony you call it the equity penalty. Are you familiar  
3 with that concept?

4 A I am familiar with the equity penalty concept, yes.

5 Q And let me make sure I have this right. With respect  
6 to this RFP process, the equity penalty was something that you  
7 asked bidders to comment on, correct?

8 A Not specifically on equity penalty. We asked them to  
9 comment on the potential for increases or decreases in our cost  
10 of capital as a result of the PPA.

11 Q But you did not apply an equity penalty in your  
12 evaluation, correct?

13 A No, sir, we did not.

14 Q And you didn't do that because you didn't have to,  
15 right?

16 A That's right, because they were already -- Hines 3  
17 was already \$92 million better than the best.

18 Q Okay. So, assuming that there was a clearly superior  
19 bid as you described it, somebody that came in with economics  
20 that were better than Hines 3 and technical attributes that  
21 were equal to or better than Hines 3, at that point in time in  
22 your process would you have then applied the equity penalty to  
23 that clearly superior bid?

24 A Well, I think, when we would have been performing the  
25 economic evaluation if we had seen that the purchased power

1 agreements were better than Hines 3 we would have then gone  
2 through and started to do the rigorous analysis that is  
3 necessary to calculate an equity penalty such that those costs  
4 are also included in the evaluation, and then we would be able  
5 to determine, okay, what are all the costs and have we  
6 represented them all and is that other -- is the purchased  
7 power proposal still clearly superior.

8 Q But you did do a thorough economic analysis of the  
9 bids, correct, of the short-listed bids?

10 A Yes, sir, but I am referring to the equity penalty.  
11 There is a lot of work that goes into calculating equity  
12 penalty.

13 Q But in doing that thorough economic analysis of the  
14 short-listed bids, you did not assign an equity penalty to the  
15 bids, correct?

16 A Yes, sir, that is correct. We did not need to. It  
17 would only show that they would be even worse.

18 Q So it was something that you kind of held and didn't  
19 use at that point in time. If you needed to use it, you would  
20 have used it?

21 MR. SASSO: Mr. Chairman, I think we have covered  
22 this ground many times over, and I have a feeling we are  
23 getting into a little preview of bid rule material at this  
24 point. We would object to further questions along this line.

25 COMMISSIONER DEASON: Mr. Moyle, do you have more

1 questions in this area?

2 MR. MOYLE: That was the last one.

3 COMMISSIONER DEASON: Very well. Please proceed.

4 MR. MOYLE: Can he answer the question?

5 COMMISSIONER DEASON: I think the question has been  
6 asked and answered in previous -- I think the record will  
7 reflect that.

8 BY MR. MOYLE:

9 Q This savings, this \$92 million in savings, I asked  
10 the first witness about that. Do you have an idea with  
11 respect -- that is over the life of the plant, 25 years,  
12 correct?

13 A Yes, sir.

14 Q And from a percentage basis, do you know what  
15 percentage that is as compared to the second place bidder, that  
16 92 million, what that represents?

17 A That 92 represents -- we did an incremental analysis  
18 where we looked at each bid compared to a base case, and  
19 compared to the base case, Hines 3 was, and I would have to  
20 look at my exhibit, I guess, Exhibit 1. Hines 3 was \$49  
21 million better than the base case. Bid E was \$44 million more  
22 expensive and, therefore, the difference subject to rounding  
23 was \$92 million. So I can't really answer your question.

24 Q Do you know the net present value of the revenue  
25 requirements for Hines 3?



1 A For all of the revenue requirements, no, I do not.

2 Q Now, I think there was a question asked at the bid  
3 conference, and you and I talked about it a little bit in your  
4 deposition, about allowing an IPP to locate on the Hines 3 site  
5 and submit a proposal using some of the advantages of the Hines  
6 Energy Complex. Do you recall that being a question at the bid  
7 conference?

8 A Yes, sir, I do.

9 Q And Florida Power Corporation is not predisposed to  
10 allow an IPP to submit a bid using the Hines Energy Complex,  
11 correct?

12 A Yes, sir, that was the statement that I made.

13 Q With respect to the criteria that was developed, you  
14 did consider assigning weights to the criteria, correct?

15 A We may have considered it at one point in time, but  
16 we decided we did not need to do that.

17 Q And that was because it would limit your flexibility?

18 A In general, in performing an RFP it limits our  
19 ability to take into account particular advantages or  
20 disadvantages of a proposal if we had to stick to a fixed  
21 weighting system.

22 Q Describe that for me. What do you mean in terms of  
23 considering advantages or disadvantages?

24 A The bidder, you know, we looked for bidders to be  
25 creative in the proposals that they provided to us, and so they

1 may put something in their proposals that doesn't fit into any  
2 of the technical criteria that we would want to be able to  
3 analyze and evaluate. And so if you fixed the criteria --  
4 excuse me, fixed the weighting ahead of time, you might  
5 disadvantage that proposal.

6 Q Okay. Based on the bids that you actually received,  
7 none of them had any kind of unique features that were out of  
8 the ordinary, correct?

9 A I believe I stated that in the deposition. And upon  
10 thinking about it some more, there were some -- I guess it's a  
11 matter of judgment in answering that question. There were some  
12 things in bidders' proposals that were unique to that one  
13 proposal that the other proposals did not have.

14 Q But with respect to your ability to have flexibility  
15 in evaluation, as we sit here today there weren't any projects  
16 that submitted bids that had those types of characteristics  
17 that you have talked about, correct?

18 A Could you repeat that question.

19 Q Sure. And it harkens back to the deposition that we  
20 discussed. And what I asked you there was were there any bids  
21 that were submitted that had unique features, that were out of  
22 the ordinary, and I think you answered no, correct?

23 A I did answer no. And I would go further to say that  
24 we had greenfield proposals that were combined cycle units,  
25 like I stated in my summary, of approximately 500 megawatts and

1 we had a system power proposal. On the surface those were not  
2 particularly unique or different than what I would have  
3 expected. We did have someone that was interested in making a  
4 proposal that I thought was rather unique that really came out  
5 of the blue, but they did not make -- they decided not to make  
6 a proposal.

7 Q Okay. Would it be fair to say that the goal of your  
8 evaluation was to perform an apples-to-apples comparison of the  
9 bids to the Hines 3 unit?

10 A Yes, sir.

11 Q And did you evaluate all the bids, including the  
12 Hines 3 unit, using the same criteria?

13 A Yes, sir.

14 Q And I think we already talked about this, but your  
15 evaluation team reviewed the proposals and drafted up papers on  
16 each proposal?

17 A Yes, sir, that is correct.

18 MR. MOYLE: Could I have a minute? I want to use a  
19 confidential document for counsel. It is FPC Document 2534 to  
20 2538.

21 BY MR. MOYLE:

22 Q Sir, I am showing you a confidential exhibit that we  
23 will mark for identification as Number 6, I believe.

24 COMMISSIONER DEASON: That is correct.

25 (Exhibit 6 marked for identification.)

1 Q And because it is confidential, I would ask you just  
2 to describe it in general terms.

3 A It looks to be a summary of the technical evaluation  
4 of bidders' responses, and this is from the environmental  
5 person.

6 Q And these are the types of reports that you received  
7 as the project leader and relied on in making your judgments?

8 A Yes.

9 Q Let me flip you to Page 4 of the document under  
10 Bidder D, and direct you to the second sentence of that page?

11 A Yes, sir. The highlighted portion?

12 Q That's correct.

13 A Okay.

14 MR. MOYLE: Maybe I can ask counsel if they consider  
15 that sentence confidential?

16 MR. SASSO: The reason this document was designated  
17 as confidential is because of the concern about bidder  
18 information. It contains a discussion in sufficient detail  
19 about each bidder so as to disclose the details of the bids.  
20 That is the reason it has been marked confidential. We haven't  
21 received any waivers from any of the bidders, so on that basis  
22 we would ask that this be treated as confidential.

23 MR. MOYLE: And all I wanted to do was either publish  
24 or refer to that sentence that is highlighted.

25 MR. SASSO: Well, perhaps --

1           COMMISSIONER DEASON: I think you can have the  
2 witness read that sentence to himself and then ask your  
3 question hopefully in a general way so as to elicit the answer  
4 without divulging any of the detailed information that could  
5 divulge the identity of a bidder. Is that possible?

6           MR. MOYLE: I think so.

7 BY MR. MOYLE:

8           Q     Could you read that highlighted sentence, please, the  
9 second sentence on FPC Document 2537?

10          MR. SASSO: To yourself, Mr. Roeder.

11          A     Yes, I have.

12          Q     And from this information it appears that the person  
13 evaluating this took into consideration what is contained  
14 within that sentence when preparing their summary to you,  
15 correct?

16          A     They wrote it down as information. Just, I guess,  
17 their opinion of that proposal. I can't say that they took it  
18 into consideration when she prepared her -- essentially what is  
19 on the summary on the first page.

20          COMMISSIONER DEASON: In your opinion is that  
21 statement relevant to the bid evaluation?

22          THE WITNESS: No, sir. That's why I said I think she  
23 wrote it in there as something maybe that she thought, but I  
24 don't believe that she took it into account when deciding for  
25 environmental purposes did we think this proposal was going to

1 be able to get their permits and any of the other technical  
2 criteria.

3 BY MR. MOYLE:

4 Q Do you know why it found its way into this summary  
5 evaluation, then?

6 A No, sir, I do not.

7 Q Let me ask you to flip to the next page under Bidder  
8 F, and read the first paragraph under Bidder F?

9 A Okay.

10 Q Is that a relevant consideration in your mind, what  
11 is set forth in that first paragraph?

12 A I don't believe it was relevant to her or that she  
13 relied on that to come up with her final results.

14 Q But you don't know that, do you?

15 A No, sir, I do not.

16 Q Was it relied on by you in your evaluation?

17 A No, sir.

18 Q Okay. Back on Page 4 there is another highlighted  
19 sentence under a section entitled water supply?

20 A Yes, sir.

21 Q I would ask you to read that sentence to yourself.

22 A Yes, sir.

23 Q You would agree that water supply is a critical issue  
24 for any power plant that competed in this bid process,  
25 including the Hines 3 unit, would you not?

1 A Yes, sir.

2 MR. MOYLE: I have another confidential document I  
3 want to provide you with. For counsel's benefit this is  
4 Confidential Document 2545.

5 COMMISSIONER DEASON: This exhibit will be identified  
6 as Exhibit 7.

7 BY MR. MOYLE:

8 Q Mr. Roeder, would you please identify this document  
9 in general terms, again, remembering that it is confidential?

10 A This is a summary of one of the proposals that was  
11 prepared by what is referred to as the T and C team, that's  
12 the terms and conditions team.

13 Q And was that part of the evaluation of the bids, this  
14 document?

15 A Yes, sir.

16 Q There is an opinion that is expressed in the second  
17 sentence there. I would ask you if you agree with that  
18 opinion?

19 A I'm not really qualified, I guess, to comment on that  
20 opinion that they were expressing there, but I guess I would  
21 further go on to say that this was the terms and conditions  
22 team, and the opinion that they are making here was outside of  
23 the -- I don't want to say exactly what it was, but it was  
24 outside the terms and conditions. It was really something that  
25 was being evaluated by a different part of the team. And so in

1 that part of the team's evaluation, this statement was not  
2 taken into account.

3 MR. MOYLE: I am going to show you one more  
4 confidential exhibit. For counsel's benefit it is FPC Number  
5 2649.

6 COMMISSIONER DEASON: Mr. Moyle, do you wish to have  
7 this identified?

8 MR. MOYLE: Please. Number 8?

9 COMMISSIONER DEASON: Exhibit 8, yes.

10 (Exhibit 8 marked for identification.)

11 BY MR. MOYLE:

12 Q Could you please in general terms identify this  
13 document?

14 A Yes, sir. It is an e-mail from the person that was  
15 responsible for doing the fuel evaluation. And the e-mail that  
16 he sent me was a revised summary of the proposals from a fuel  
17 perspective.

18 Q And the second part of the sentence there, that  
19 expresses a fact with respect to transportation, fuel  
20 transportation?

21 A Yes, sir.

22 Q You would agree that is consistent with the  
23 highlighted information I showed you on PACE Exhibit Number 7,  
24 correct?

25 A Okay. You will have to refresh me, which was 7?



1 Q The confidential document.

2 A And what do you mean by consistent?

3 Q It says the same thing, essentially?

4 MR. SASSO: I will object to counsel's  
5 characterization.

6 MR. MOYLE: All I'm trying to ask the witness is with  
7 respect to what is set forth in this e-mail that he received  
8 with respect to transportation, whether in his opinion that is  
9 consistent with the information that was on the previous  
10 Confidential Exhibit Number 7.

11 COMMISSIONER DEASON: You may answer the question.

12 THE WITNESS: Yes, sir. I think they refer to the  
13 same thing. They are about two different bidders. And, again,  
14 the last exhibit that you sent me, that was from our fuel  
15 evaluator, so that is what was used in the evaluation. And  
16 this other was from a different team and was not used.

17 BY MR. MOYLE:

18 Q Okay. Now, to get away a little bit from the  
19 confidential nature, because it is unwieldy working with those,  
20 but in your testimony, I believe, and in other places it is  
21 important, is it not, to have a fuel transportation agreement  
22 in place, is it not?

23 A In place at what point in time?

24 Q To have an agreement, to have a fuel transportation  
25 agreement?

1           A     In our evaluation it was important to have a plan to  
2 have a fuel transportation agreement. We did not require that  
3 bidders have fuel transportation agreements.

4           Q     Do those documents I showed you talk about a plan or  
5 a contract?

6           A     Well, the last one talked about that bidder -- I'm  
7 not certain what I can say or not say. It talked about a  
8 contract, but they were not required to have a contract. We  
9 asked them -- part of the instructions in the RFP were tell us  
10 about your fuel supply plan. If you have any contracts, tell  
11 us about those. If you don't, tell us about how you are going  
12 to go about arranging.

13          Q     Given that with respect to fuel transportation,  
14 Florida Power Corporation does not have a fuel transportation  
15 agreement in place, does it not, for Hines 3?

16          A     For Hines 3, no, it does not.

17          Q     It hasn't even identified the supplier of fuel for  
18 Hines 3, has it?

19          A     Not to my knowledge. We have fuel supply contracts  
20 for Hines 1 and 2.

21          Q     But for Hines 3 you haven't identified who is going  
22 to supply your gas, correct?

23          A     Not to my knowledge.

24          Q     In your Exhibit Number 10, Florida Power Corporation  
25 received a one with respect to fuel supply and transportation

1 reliability, correct?

2 A Yes, sir.

3 Q I'm going to ask the question that they taught me in  
4 law school not to, which is why?

5 A Why does it have a one?

6 Q Right.

7 A Because the fuel plan for Hines 3 was deemed to be  
8 the best fuel plan compared to the other proposals.

9 Q Why was it deemed to be the best? It didn't have a  
10 contract, it didn't have a supplier identified.

11 A Well, we did not require that a supplier or a  
12 contract be identified, and there were probably other  
13 considerations than just that one thing that went into the fuel  
14 supply and transportation reliability criteria.

15 Q What were they, the other considerations?

16 A They could have been are there two pipelines going  
17 into the project versus one. That is an example that I can  
18 think of off the top of my head. I would have to go back  
19 and --

20 Q Are you aware that other proposals had two pipelines  
21 coming into it?

22 A I believe there were others that had plans to have  
23 two pipelines going in there, or they could arrange to have two  
24 pipelines going in. But here in Hines we have got two  
25 pipelines going in, we didn't have to arrange interconnections

1 or anything like that.

2 Q Did you ultimately make that decision to score a one  
3 on fuel supply and transportation reliability?

4 A No, sir, that was the fuel person on the RFP team.

5 Q And you reviewed that and concurred with it?

6 A Yes, sir.

7 Q There was some back and forth with respect to --  
8 switching gears to another subject area -- some transportation  
9 issues, a \$20 million figure that was incurred at one point  
10 when you were doing transportation analysis. Could you explain  
11 that situation, please?

12 A Well, there are two \$20 million figures. Are you  
13 referring to Hines 3 or to one of the bids?

14 Q Hines 3.

15 A Hines 3. The \$20 million that was probably written  
16 in some evaluation somewhere, that was going to be the cost of  
17 the Hines West Lake Wales project that was already -- and \$20  
18 million is the cost of that project. That project was already  
19 in Florida Power's transmission plan, but it was in the plan  
20 for 2007. And initially if we were to build -- initially at  
21 the beginning of our evaluation process it looked as if when we  
22 put in Hines 3 that line would need to be accelerated to 2005.  
23 And when we got to the evaluation, what we would have captured  
24 was the timing difference of that \$20 million being in 2007  
25 versus 2005, so Hines would have incurred an additional cost,

1 but not that entire \$20 million.

2 Q Let me show you another confidential exhibit, which  
3 will be Number 8.

4 A Can I expand on my previous answer?

5 COMMISSIONER DEASON: Yes, you may. But I think the  
6 next exhibit would be Exhibit 9. You may expand on your  
7 answer.

8 (Exhibit 9 marked for identification.)

9 THE WITNESS: As I said, initially we thought we were  
10 going to have to move that line up. But as a result of some  
11 transmission work that was being done due to some IPP projects,  
12 that project, the Hines West Lake Wales line was no longer  
13 needed in 2005. That was, again, pushed out beyond 2005, and  
14 so it would not be needed if Hines 3 or one of the other  
15 proposals for that matter were to go in service in 2005. And  
16 that is covered in my testimony, also.

17 BY MR. MOYLE:

18 Q Let me refer you to a portion of this document, FPC  
19 Document 2611. It's an e-mail, I believe, from you to Mr.  
20 White dated April 30th, 2002. Do you see that?

21 A Yes, sir. This document actually has a series of  
22 e-mails, but I see mine a little bit down from the top.

23 Q I want to direct your attention to the paragraph that  
24 starts, "I am concerned," and ask you to read that to yourself.

25 A Okay.

1 Q What were you concerned about as you wrote this  
2 e-mail?

3 THE WITNESS: Commissioners, I'm having a little  
4 trouble. If I have to read it to myself, how can I discuss  
5 what my concern was because it is stated in that thing there?

6 COMMISSIONER DEASON: Repeat your question, Mr.  
7 Moyle.

8 BY MR. MOYLE:

9 Q I was trying to ascertain the reason for the concern  
10 expressed in this e-mail?

11 A The concern was what I explained earlier, that the  
12 way the report was originally written I believe it said that  
13 there was going to be \$20 million for the cost of the Hines  
14 West Lake Wales line, and I suggested that the person rewrite  
15 it to say that that line was already in the plan and the cost  
16 that would be incurred would be the cost to advance that line  
17 from 2007 to 2005. I just wanted them to clarify that.

18 Q And did they?

19 A Yes, they did.

20 Q Let me focus you back on your testimony. I have it  
21 on Page 30, the provision about contract flexibility. Do you  
22 recall your testimony talking about considering contract  
23 flexibility?

24 A Yes, sir.

25 Q Now, I guess you considered a bidder's willingness to

1 negotiate changes to other contracts with Florida Power as part  
2 of your evaluation process, is that correct?

3 A Yes, sir.

4 Q Now, that criteria was not applied to all bids?

5 A That was not a criteria, sir, that was a feature of  
6 their proposal.

7 Q That consideration obviously can only be applied to a  
8 bidder, too, correct?

9 A Can only be applied to a bidder --

10 Q To maybe a bidder who has a contract with Florida  
11 Power Corporation?

12 A Yes, sir.

13 Q How many bidders had contracts with Florida Power  
14 Corporation out of the seven?

15 A I can't answer that specifically. We may have  
16 contracts with some of the other bidders. I know we do  
17 business with some of the other bidders.

18 Q As we sit here today, how many are you aware that you  
19 have contracts with, just one?

20 A At least one. Two. Maybe even three.

21 Q Do you believe that is an appropriate thing to  
22 consider in evaluating bids, trying to do an apples-to-apples  
23 comparison whether there is a willingness to negotiate changes  
24 in other preexisting contracts?

25 A Well, like I said, that wasn't a criteria, that was

1 one of those features that we talked about earlier that we  
2 wanted to take into account that was something that was  
3 different than the other proposals. This bidder offered, hey,  
4 we have got some existing contracts with you, we are willing to  
5 talk about maybe renegotiating some of those things. And that  
6 was just a -- that got captured in our flexibility provisions  
7 criteria.

8 Q In your testimony you talk about lowering the cost  
9 estimate of Hines 3, do you recall that?

10 A Yes, sir.

11 Q How much was the estimate lowered by approximately?

12 A To the best of my recollection I think it was like  
13 \$15 million.

14 Q And why was that done?

15 A Because we had a better estimate.

16 Q Describe what you mean by a better estimate?

17 A Well, the original estimate that went into the RFP  
18 was stated in the RFP that this is based on our planning  
19 information, and so it more or less represented a market cost  
20 for a combined cycle. And then further on down the line we got  
21 a cost estimate that was -- we got additional information  
22 provided by our EPC contractor that we used to use for that new  
23 estimate in addition to the cost for the Westinghouse  
24 combustion turbines that were going to be used in Hines 3.

25 Q Was it planned that this additional information would



1 come in at this point in time in terms of the revised estimate?

2 A I believe at the bidders conference there was a  
3 question about are you going to revise your numbers, and I  
4 believe I said I think we are working on getting some new  
5 numbers, yes.

6 Q If those numbers had been higher than the original  
7 estimate, then you would have revised your numbers upward, is  
8 that correct?

9 A I would assume that we would have, yes.

10 Q Did you receive estimates on any other components of  
11 the Hines 3 complex during this process, revised estimates?

12 A Components of the capital costs or just components of  
13 the total cost?

14 Q Components of the total cost.

15 A Yes. We got new estimates for fixed and variable  
16 O&M. We got a new estimate for heat rate, also.

17 Q And did you use those new numbers?

18 A Yes, we did.

19 Q The heat rate, that number -- what was the revised  
20 number you received?

21 A The revised number that we received and that we  
22 provided to the short-listed bidders was a full load heat rate  
23 of I believe it was approximately 6,900 Btus per kilowatt hour.

24 Q And how did that change from the number previously  
25 provided?

1           A     The number previously provided was that 7,100 Btus  
2 per kilowatt hour at an 80 percent NOF, so we changed the  
3 representation of that number. And indeed it was not the same  
4 number. Because what I had received and what I put in the RFP  
5 was that 7,100 at 80 percent NOF, and that was how I actually  
6 received that information. I did not have a full load heat  
7 rate at the time of the RFP to put in there.

8           Q     So the number you used for modeling purposes was the  
9 6,900 number?

10          A     We used the full load heat rate, the 6,900, and we  
11 also used a heat rate curve to represent all the points between  
12 full load and minimum load.

13          Q     Were the numbers you used in the economic modeling  
14 guaranteed by the manufacturers of the equipment?

15          A     We do not have a heat rate guarantee at this point  
16 for Hines 3, but they were based on estimates provided to us by  
17 Westinghouse.

18          Q     For regulatory purposes, would you be willing to  
19 stand behind that heat rate number, that 6,900 number used in  
20 your economic modeling?

21               MR. SASSO: Objection, Mr. Chairman. He is calling  
22 upon this witness to agree to depart from the regulatory  
23 compact. I don't think it is a fair factual question.

24               COMMISSIONER DEASON: I think it is a fair question.  
25 If this witness has a basis to answer it, he may answer it.

1 THE WITNESS: Could you repeat, please.

2 BY MR. MOYLE:

3 Q For regulatory purposes, will you be willing to stand  
4 behind the 6,900 number that you used for economic modeling in  
5 evaluating the bids?

6 A I don't think it is appropriate for me to make that  
7 representation.

8 Q Why not?

9 A That is not my decision. And I think that like Mr.  
10 Sasso said, it is not part of the regulatory compact that we  
11 have. We come to the Commission when we seek to recover costs  
12 and they determine if those costs are prudently incurred or  
13 not. And if the heat rate that the plant actually can provide  
14 is better than that, then we pass those benefits on to the  
15 customer.

16 Q The 6,900 number is the number that you used to  
17 determine that Hines 3 was the winner of the RFP, correct?

18 A The 6,900 number was the full load heat rate that we  
19 used. But we also, like I said before, we also used a heat  
20 rate curve in our production costing analysis.

21 Q Isn't it true that this was the lowest heat rate  
22 number that you received?

23 A I believe it was, yes.

24 Q Do you know why that is?

25 A Well, I kind of have an idea, but I don't know for

1 sure because I did not go to the bidders and ask them why their  
2 numbers were what they were.

3 Q Tell me your idea.

4 A Well, the IPPs they can -- let me back up a second.  
5 Florida Power with Hines 3 and our other units, we recover --  
6 on the fuel side we recover the costs as they are incurred.  
7 With a contract, the bidders, they may have inflated their --  
8 and maybe inflated is not the best word, but they may have  
9 given us a heat rate that was actually higher than they  
10 suspected they could achieve. Therefore, they would ensure  
11 themselves that they would recover their fuel and maybe even  
12 make money for the shareholders on the fuel as opposed to  
13 passing through the fuel costs themselves. So they may have  
14 come in with a slightly higher than what they expected their  
15 heat rates to be.

16 Q Do you think it also could have maybe been because  
17 they were bidding their guaranteed heat rates?

18 A I would be surprised if that is what their guaranteed  
19 heat rates were from their manufacturers, because they were  
20 proposing, you know, the newest technology similar to what we  
21 have. I would expect their heat rates to be similar to ours.  
22 In fact, the one bidder that had the next best heat rate, their  
23 configuration was actually probably a little less efficient  
24 than the other configurations of combined cycles that we got,  
25 and that kind of doesn't make any sense to me.

1 Q With respect to the bids, the bidders had to lock in  
2 at a heat rate that they provided or guaranteed to Florida  
3 Power Corporation, correct, as part of their bid?

4 A We asked them as part of their bid to give us the  
5 guaranteed full load heat rate. Now, what actually winds up in  
6 the negotiations as far as heat rates at points other than full  
7 load, that would have all been part of the negotiation process.

8 Q Also, I guess your O&M cost came down a little bit,  
9 did it not?

10 A I believe that is correct.

11 Q Why did the cost of the O&M come down?

12 A Because we had better more up-to-date numbers for  
13 Hines 3 than what we used in the RFP. Excuse me, than what we  
14 published in the RFP.

15 Q Was this info that was planned to come to you or was  
16 it something that just kind of happened by happenstance?

17 A I don't know that it was planned, but when we had --  
18 when I received the new cost information on the construction  
19 costs, I wanted to -- I went out to the other people that gave  
20 us operating information that was provided in that document,  
21 and I wanted to get the most up-to-date numbers that we had to  
22 provide those to the bidders.

23 Q So this wasn't a strategy for you in terms of this  
24 RFP to publish a heat rate that was higher than the one that  
25 would actually be used, or publish a O&M cost that was higher

1 than the one that was actually used and change those numbers  
2 subsequently, was it?

3 A No, sir. As stated in the RFP on that one page,  
4 Section 5, that these are planning assumptions. I think it  
5 says that effectively.

6 Q With respect to the technical review criteria, if  
7 there was a proposal that did not meet FRCC reliability  
8 standards, would you have thrown it out of consideration  
9 because it didn't meet those requirements?

10 A Well, I think we would have gone back to the bidders  
11 and asked them questions about that to try and get comfortable  
12 with that situation to see what they would have done.

13 Q And if you went back to them and asked them questions  
14 and they said, listen, we think we can get there, but we are  
15 not sure, would you have felt comfortable proceeding with an  
16 agreement with that bidder?

17 A Since that is not my technical area of expertise, I  
18 would have -- first of all, I would have left that to the  
19 technical experts and I would let them determine how  
20 comfortable they were with that situation.

21 Q Okay. But you were the person who advised senior  
22 management at Florida Power Corp on this issue, is that  
23 correct, on the RFP?

24 A I was the messenger, yes, sir.

25 Q Okay. And you, I think, already testified to -- that

1 you asserted independent judgment on what your technical staff  
2 told you, correct?

3 A I don't know that -- it depends on what you mean by  
4 independent judgment. I did not take their evaluations and  
5 then say, oh, you're right; you're wrong. It needs to be this,  
6 it needs to be that. What they said was what I accepted.

7 Q So as we sit here today if there were a bidder who  
8 did not meet the FRCC reliability guidelines, would you  
9 recommend to your senior management that that bid be accepted?

10 A I think as I tried to explain, if the technical  
11 expert said that they -- we had discussed that issue with the  
12 bidder and they were comfortable with that bidder's response to  
13 our concern, then we would have evaluated it appropriately and  
14 proceeded from there.

15 Q If the response back from your technical people was  
16 we think we can work it out, but they are running tests in  
17 Berlin and we won't have the tests results back until the  
18 spring, would you feel comfortable making a recommendation to  
19 your management to proceed with entering into a contract with  
20 that bidder?

21 A Again, I think the bottom line goes to that technical  
22 expert. They are more closely familiar with that than I am.

23 Q Those are somewhat hypothetical questions. Back on  
24 the frequency issue. It is true, is it not, that there are  
25 tests being performed as we speak in Berlin on the

1 underfrequency issue?

2 A I have heard talk of that. I have no information on  
3 what is going on.

4 Q Mr. Murphy?

5 A Either Mr. Murphy or Mr. White.

6 MR. MOYLE: Can I just have one minute? I think I'm  
7 close.

8 (Pause.)

9 BY MR. MOYLE:

10 Q If your heat rate was 7,100, do you know how much  
11 that would affect the net present value?

12 A The 7,100 number was a representation of the heat  
13 rate at a certain operating characteristic. It was not a 7,100  
14 at a full load operation. So I think that is a clarification  
15 that needs to be made there. Are you saying if the full load  
16 heat rate was 7,100, what would the impact be?

17 Q Yes.

18 A I don't know off the top of my head what that impact  
19 would be. But if we go to -- I believe that you made a  
20 representation in one of the filings, and it talked about this  
21 7,306 number which is higher than the 7,100 number, and that  
22 that represented a 3 to \$4 million difference. Well, if that  
23 is the case and so we say 7,100 is halfway in between, so let's  
24 make it easy, \$2 million a year. On a cumulative present value  
25 basis that \$2 million a year is less than \$20 million.



1 MR. MOYLE: Thank you. If I could have just one more  
2 quick minute.

3 COMMISSIONER DEASON: So holding everything else  
4 equal, the utilization of a 7,100 heat rate at full load would  
5 not change the outcome of the economic analysis. Hines 3 would  
6 still be the most cost-effective unit?

7 THE WITNESS: Yes, sir. If you could hold everything  
8 else constant that 20 million would reduce the 92 to, let's  
9 say, 72. And Hines 3 would still be the clear winner.

10 MR. MOYLE: One more document I want to use with this  
11 witness if I could. And it's a confidential document. For the  
12 benefit of counsel, it is FPC Document 1861 through 1864.

13 COMMISSIONER DEASON: It will be Exhibit 10.

14 BY MR. MOYLE:

15 Q Are you familiar with what has been marked as Exhibit  
16 10?

17 A Yes, sir.

18 Q Describe in general terms what this document is?

19 A This is a document that is part of a spreadsheet that  
20 was used to perform the screening analysis.

21 Q And this spreadsheet shows the fixed costs for the  
22 various bids as compared to Hines 3, correct?

23 A It shows all the costs.

24 Q Correct?

25 A Yes, it shows all the costs identified in the

1 proposals. The line that you highlighted is fixed costs, yes.

2 Q Okay. Now, I have highlighted a couple of lines in  
3 here. Tell me why you believe that a particular bidder that is  
4 highlighted at the top, which when I add the numbers up over  
5 the period of time has a lower --

6 COMMISSIONER DEASON: I'm sorry, Mr. Moyle, I don't  
7 have any highlighting. So if you need me to follow along I  
8 either need a different version or else you need to identify  
9 the line.

10 MR. MOYLE: I apologize.

11 COMMISSIONER BRADLEY: Excuse me. What is this,  
12 again, Mr. Moyle?

13 MR. MOYLE: This is a spreadsheet that was run by  
14 Florida Power Corp that shows the relative costs of the bids  
15 compared to Hines 3, as I understand it.

16 COMMISSIONER BRADLEY: Okay.

17 BY MR. MOYLE:

18 Q Right, Mr. Roeder?

19 A Yes, sir.

20 COMMISSIONER BRADLEY: Where is the cost of Hines 3  
21 represented in the spreadsheet?

22 MR. MOYLE: It starts down on the bottom of the page  
23 where it says Hines 3 annual RR.

24 COMMISSIONER BRADLEY: Okay. I'm with you now.

25 MR. MOYLE: And then you flip over to the next page.

1 BY MR. MOYLE:

2 Q And I have highlighted total fixed costs, and I want  
3 to have a bit of a discussion with you with respect to the  
4 costs for a particular bidder that offered a particular term  
5 that is highlighted at the top relative to the Hines 3 costs.  
6 Given the questions and answers we have had with respect to the  
7 frequency and other issues, why did you not consider entering  
8 into an agreement with this entity for a short-term period of  
9 time as compared to moving forward with your Hines 3 Unit?

10 A Well, sir, that particular bidder was the bidder that  
11 did not have site control.

12 COMMISSIONER BRADLEY: Before we move on, I have a  
13 question. It says average capacity. Under Bidder B it says  
14 500 megawatts, is that correct?

15 THE WITNESS: Yes, sir.

16 COMMISSIONER BRADLEY: And under Hines 3 it says  
17 537.5.

18 THE WITNESS: Yes, sir.

19 COMMISSIONER BRADLEY: How does that megawatt  
20 difference factor into the differential as it relates to the  
21 cost of construction?

22 THE WITNESS: Well, you can't see it from looking at  
23 this one sheet of the spreadsheet, but it was taken into  
24 consideration in other spreadsheets that are not included. I  
25 don't believe they are included here. So it is hard to tell,

1 but when we -- again, this was a screening analysis which is  
2 similar, it's like one of the first spreadsheets that was used  
3 to develop DJR-6 in my prefiled testimony.

4 And in that analysis, that is on a dollar per kW a  
5 year analysis, but the capacity is used to convert the --  
6 actually I'm not sure if it is necessary to use the capacity in  
7 any of the calculations that do the screening analysis. It may  
8 have just been there just to have that information on that  
9 sheet. I'm not sure if I answered your question, sir.

10 COMMISSIONER BRADLEY: Well, I guess what I'm trying  
11 to figure out is how 500 megawatts could generate on the  
12 average of 7,500 average heat rate, and it would seem to me  
13 that 537 would generate more than 500.

14 THE WITNESS: Yes, sir. 537 is a higher capacity  
15 than what was being proposed by Bidder B. You mentioned the  
16 7,500 --

17 MR. SASSO: Mr. Chairman, we apologize for  
18 interrupting, but we would ask that the numbers not be  
19 published because of the confidentiality concerns.

20 COMMISSIONER DEASON: Yes. Commissioner, we probably  
21 shouldn't mention the exact numbers because it is confidential.

22 COMMISSIONER BRADLEY: Okay.

23 COMMISSIONER DEASON: But you can refer to the heat  
24 rate for Bidder B and then he knows what that number is because  
25 he can see it.

1 COMMISSIONER BRADLEY: Okay. Can you explain why the  
2 heat rate for Bidder B is more than the heat rate for Hines  
3 based upon the difference between the megawatts?

4 THE WITNESS: No, sir. I would say they are not  
5 directly related. The bidder, that was the heat rate they  
6 proposed that we use in their evaluation, okay, and the heat  
7 rate for Hines -- which Mr. Sasso, I believe, we can mention  
8 since we already -- the 6,903 number, that was the full load  
9 heat rate that we had estimated that we had for Hines 3.

10 COMMISSIONER DEASON: Let me get this clear. A heat  
11 rate, though, is not directly related to -- in other words,  
12 heat rate is Btus per kilowatt hour. So it is already on a  
13 common denominator. In other words, a larger unit wouldn't  
14 necessarily have a different heat rate unless there is certain  
15 efficiencies with having a larger or smaller unit.

16 THE WITNESS: That's correct.

17 COMMISSIONER DEASON: But heat rate itself is already  
18 in terms of a per kilowatt basis, correct?

19 THE WITNESS: Yes, sir. Per kilowatt hour basis.

20 COMMISSIONER BRADLEY: Okay. That explains.

21 BY MR. MOYLE:

22 Q I think I had asked you with respect to Bidder B and  
23 your Hines unit. Given the circumstances would you not have  
24 considered entering into an arrangement with Bidder B, and I  
25 think your answer was they didn't have site control. Assuming

1 they did have site control, would you have then considered and  
2 recommended entering into a short-term arrangement with them?

3 A Well, sir, you have highlighted on my sheet here one  
4 component of their cost, and we have to take into account all  
5 components of cost. In this screening analysis there is a line  
6 that shows variable dollars per megawatt hour, and B has a  
7 higher number than what Hines has. And so those things are  
8 going to cancel out. Or maybe not cancel out, but you have to  
9 take them all into consideration in doing the evaluation.

10 Q If you look at Bidder B, there is a number for  
11 starts, do you see that?

12 A Yes, sir.

13 Q If you look at Hines, there is a column for start  
14 price on Page 2. Can you explain the number for start price  
15 entered by Florida Power Corp?

16 A This was a screening analysis. And in the screening  
17 analysis we did not take into account start costs or number of  
18 starts because we would have had to have assumed a number of  
19 starts, and we decided we didn't need to do that for the  
20 purposes of the screening analysis.

21 Q But with respect to this screening analysis, it  
22 appears that the starts were all given dollar figures for the  
23 outside bids, were they not?

24 A Yes, sir. We pulled them in from their proposal  
25 spreadsheets into here.

1 MR. MOYLE: One second, please. (Pause.)

2 Thank you. I appreciate your patience. I'm done.

3 COMMISSIONER DEASON: Very well. We are going to

4 recess for lunch. We will reconvene at 2:00 o'clock.

5 (Lunch recess.)

6 (Transcript follows in sequence in Volume 2.)

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1 STATE OF FLORIDA     )  
2                             :     CERTIFICATE OF REPORTER  
3 COUNTY OF LEON        )

4  
5             I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter  
6 Services, FPSC Division of Commission Clerk and Administrative  
7 Services, do hereby certify that the foregoing proceeding was  
8 heard at the time and place herein stated.

9             IT IS FURTHER CERTIFIED that I stenographically  
10 reported the said proceedings; that the same has been  
11 transcribed under my direct supervision; and that this  
12 transcript constitutes a true transcription of my notes of said  
13 proceedings.

14             I FURTHER CERTIFY that I am not a relative, employee,  
15 attorney or counsel of any of the parties, nor am I a relative  
16 or employee of any of the parties' attorney or counsel  
17 connected with the action, nor am I financially interested in  
18 the action.

19             DATED THIS 9TH DAY OF DECEMBER, 2002.

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