

STATE OF FLORIDA

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**Public Service Commission**

**M-E-M-O-R-A-N-D-U-M**

DATE: October 11, 2000

TO: \_\_\_\_\_ DIVISION OF APPEALS  
\_\_\_\_\_ DIVISION OF COMPETITIVE SERVICES  
\_\_\_\_\_ DIVISION OF ECONOMIC REGULATION  
\_\_\_\_\_ DIVISION OF LEGAL SERVICES  
\_\_\_\_\_ DIVISION OF POLICY ANALYSIS & INTERAGENCY LIAISON  
\_\_\_\_\_ DIVISION OF REGULATORY OVERSIGHT  
xx \_\_\_\_\_ DIVISION OF SAFETY & ELECTRIC RELIABILITY

FROM: DIVISION OF RECORDS AND REPORTING (Lockard)

RE: CONFIDENTIALITY OF CERTAIN INFORMATION

DOCUMENT NO: 12940-00 (See DN 09534-00)

DESCRIPTION: Corrected Confidential Direct Testimony of John B. Crisp

SOURCE: Florida Power Corporation

DOCKET NO: 001064-EI

The above material was received with a request for confidentiality (attached). Please prepare a recommendation for the attorney assigned to the case by completing the section below and forwarding a copy of this memorandum, together with a brief memorandum supporting your recommendation, to the attorney. Copies of your recommendation should also be provided to the Division of Records and Reporting and to the Division of Appeals.

Please read each of the following and check if applicable.

- \_\_\_\_\_ The document(s) is (are), in fact, what the utility asserts it (them) to be.
- \_\_\_\_\_ The utility has provided enough details to perform a reasoned analysis of its request.
- \_\_\_\_\_ The material has been received incident to an inquiry.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for Determination )  
of Need of Hines Unit 2 Power )  
Plant )  
\_\_\_\_\_ )

DOCKET NO. 001064-EI

Submitted for filing: October 10, 2000

**CORRECTED  
CONFIDENTIAL  
DIRECT TESTIMONY  
OF JOHN B. CRISP**

**ON BEHALF OF  
FLORIDA POWER CORPORATION**

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**DECLASSIFIED**  
**CONFIDENTIAL**

DOCUMENT NUMBER-DATE  
12940 OCT 11 8  
FPSC-RECORDS/REPORTING

**IN RE: PETITION FOR DETERMINATION OF NEED  
BY FLORIDA POWER CORPORATION  
FPSC DOCKET NO. 001064-EI**

**CORRECTED CONFIDENTIAL DIRECT TESTIMONY OF JOHN B. CRISP**

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**I. INTRODUCTION AND BACKGROUND.**

**Q. Please state your name and business address.**

A. My name is John B. Crisp, and my business address is Florida Power Corporation,  
One Power Plaza, 263 13<sup>th</sup> Avenue, St. Petersburg, Florida 33701.

**Q. By whom are you employed?**

A. I am employed by Florida Power Corporation (“FPC” or the “Company”), as the  
Director of Integrated Resource Planning and Load Forecasting.

**Q. Are you filing non-confidential direct testimony in this proceeding?**

A. Yes.

**Q. Have you described your duties as Director of Resource Planning and other  
pertinent background information in that testimony?**

A. Yes, I have.

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FPSC-RECORDS/REPORTING

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

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

A. In response to the Company’s Request for Proposals (“RFP”), we received proposals from two bidders, (1) Panda Leesburg, L.L.C. (“Panda”) and (2) TECO Power Services Corporation (“TECO”) and Texaco Power and Gasification Global, Inc. (“Texaco”), acting through a joint venture called “Eagle Energy.” Both bidders requested confidential treatment of the terms of their proposals. We evaluated both proposals thoroughly, and we would like to describe these proposals and our evaluation of them for the benefit of the Commission. In deference to the requests for confidentiality by both of these bidders, however, we are referring to the bidders simply as Bidder A and Bidder B, respectively, in our non-confidential testimony and exhibits, and we do not describe the proposals or our evaluation of them in any detail in our non-confidential submissions. That being the case, I am filing this confidential testimony and supporting exhibits to describe the terms of the proposals and our evaluation of them.

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

A. Yes. I am sponsoring the following confidential appendix items to the confidential portion of our Need Study in this non-public portion of my testimony:

1	<b>(Confidential) JBC-3, App. 1</b>	<b>Panda proposal.</b>
	<b>(Confidential) JBC-3, App. 2</b>	<b>Eagle Energy proposal.</b>
	<b>(Confidential) JBC-3, App. 3</b>	<b>Composite exhibit of correspondence concerning required information and the Bidders' responses.</b>
	<b>(Confidential) JBC-3, App. 4</b>	<b>Composite exhibit of correspondence concerning supplementation and clarification of the Bidders' proposals.</b>
	<b>(Confidential) JBC-3, App. 5</b>	<b>Economic comparison in initial screening of Hines 2 and the Panda and Eagle Energy proposals.</b>
	<b>(Confidential) JBC-3, App. 6</b>	<b>Economic comparison in supplemental screening of Hines 2 and the Panda and Eagle Energy proposals.</b>
	<b>(Confidential) JBC-3, App. 7</b>	<b>Evaluation of non-price attributes of Panda proposal.</b>
	<b>(Confidential) JBC-3, App. 8</b>	<b>Evaluation of non-price attributes of Eagle Energy proposal.</b>

18       **III.    OVERVIEW OF PANDA AND EAGLE ENERGY PROPOSALS.**

19

20   **Q.    Please provide an overview of Panda's proposal.**

21   A.    In our RFP we had identified a long-term need for generating capacity equivalent to  
22       our next-planned 530 MW, 25-year combined cycle Hines 2 unit. In response,  
23       Panda proposed to enter into a 2-year system power purchase agreement with FPC  
24       for 250 MW, with options to extend for 1-year periods for up to three additional  
25       years (for a total possible contract period of five years). Panda proposed to support

1 this contract primarily from a planned 1,000 MW gas-fired, combined cycle  
2 generating plant – the Panda Leesburg plant – then the subject of a petition for  
3 determination of need before the PSC. (PSC Docket No. 000288-EU). Panda also  
4 expressed an ability to provide increased availability of the contracted capacity by  
5 providing energy from various sources, including its proposed Panda Midway plant,  
6 (another proposed 1,000 MW gas-fired, combined cycle plant), as necessary.

7 In the documentation describing its proposal, Panda indicated that it intended  
8 to commit no more than 500 MW of the total capacity of either the Leesburg Plant  
9 or the Midway Plant under firm power purchase agreements, operating the balance  
10 of the plants on a merchant basis. Panda proposed capacity payments starting at  
11 approximately \$81 per kw-yr, escalating at 5 percent annually after the base 2-year  
12 period, and Panda proposed an indexed energy rate.

13 A copy of Panda’s full proposal is included as a confidential appendix item  
14 to FPC’s Confidential Section of its Need Study, App. 1 to (Confidential) JBC-3.  
15

16 **Q. Please provide a general overview of the Eagle Energy proposal.**

17 A. In its proposal, Eagle Energy chose a more complex operating technology from the  
18 Hines 2 natural gas-fired, combined cycle technology and proposed to build a much  
19 larger unit as well (exceeding our identified need by nearly 50 percent).

20 Specifically, Eagle Energy initially proposed to build an 809 MW power plant at the  
21 Hines Energy Complex, using petroleum coke (“petcoke”) feedstock (fuel source)  
22 and integrated gasification combined cycle (“IGCC”) technology. Eagle Energy  
23 subsequently revised its proposal, after further refining the plant design, offering to

1           construct a 740 MW and then a 750 MW plant. Eagle Energy proposed to place the  
2           plant in service in the spring of 2004 — several months after the RFP requested in-  
3           service date, after the proposed in-service date of Hines 2, and after the winter of  
4           2003/04 when additional capacity will be needed by FPC. Eagle Energy offered to  
5           contract with FPC for any capacity level between 500 MW and the full 750 MW  
6           capability of the Eagle Energy plant, at FPC’s discretion, for a 25-year period.

7                     Eagle Energy proposed to obtain the petcoke needed for the plant from Gulf  
8           Coast and Caribbean basin refineries. Eagle Energy would arrange to have the  
9           petcoke carried to Tampa Bay by ocean barges, and then from the port a third of the  
10          way across the state to the plant site requiring at least 250 tandem truck trips every  
11          day (averaging at least one truck every six minutes around the clock).

12                    The Eagle Energy proposal called for high capacity charges (approximately  
13          \$230 per kw-yr, escalated at two percent per year) and low energy charges  
14          (approximately \$3.53 per MWh, escalating at two percent) for the life of the  
15          contract. This magnitude of the proposed capacity charges was significant. Eagle  
16          Energy proposed a cap on capacity liquidated damages of ten percent of the capacity  
17          charges, meaning that FPC would be liable for exceptionally high capacity payments  
18          even in the event of non-performance.

19                    A copy of Eagle Energy’s full proposal is included as a confidential  
20          appendix item to FPC’s confidential portion of its Need Study, App. 2 to  
21          (Confidential) JBC-3.

1 **Q. Did you seek additional information from these bidders?**

2 A. Yes, we did. In both cases, the bidders failed to include information in their original  
3 submissions that we had required in our RFP. So our first step was to contact both  
4 bidders to ask for pertinent information that was requested in the RFP but was not  
5 submitted; this was information that was necessary to complete an objective and  
6 comprehensive evaluation of each proposal. Both bidders provided additional  
7 information in response to these requests. The correspondence between FPC and  
8 both bidders concerning our follow-up requests for information is included in FPC's  
9 Confidential Section of its Need Study, Appendix 3, (Confidential) JBC-3.

10 Following our preliminary review of the proposals, we then contacted both  
11 Panda and Eagle Energy to ask for additional information pertinent to the proposals,  
12 as indicated in Appendix 4 to FPC's Confidential Section of its Need Study,  
13 (Confidential) JBC-3.

14 In Panda's case, among other things, we advised Panda that no other bidder  
15 had offered a proposal that we could combine with Panda's 250 MW, 2- to 5-year  
16 contract proposal in order to reach our 530 MW, 25-year need. So we asked Panda  
17 whether it would be willing to increase its commitment of MWs and lengthen the  
18 contract duration to better match the need identified in our RFP. In response, Panda  
19 advised us that it would be willing to enter into a contract with FPC for a second  
20 block of power of 250 MW. The proposed capacity charges in the second block  
21 were \$109 per kw-yr, escalating at 3.5 percent annually after an initial two-year  
22 period, which was higher than the first block, which started at approximately \$ 81  
23 per kw-yr and escalated at 5 percent annually after the initial 2-year period. Both



1 blocks proposed had the same indexed, formula energy rate. In Panda's original  
2 proposal, the bidder had offered 29 MW of supplemental capacity, at the same  
3 capacity price per kW-yr, but with a significant heat rate penalty. With the second  
4 capacity block, Panda also offered an additional 1 MW of supplemental capacity to  
5 bring their total capacity offering to 530 MW, meeting FPC's capacity requirement.  
6 Panda stated that it was not interested in extending the contract term, however,  
7 though it would be willing to negotiate another contract at the end of the maximum  
8 5-year contract period, with no assurance that the contract would in fact be extended.

9 This was significant because it meant that FPC would have to build or  
10 purchase a 530 MW block of capacity (the equivalent of the Hines 2 plant) no later  
11 than the expiration of the contract option periods (i.e., no later than five years out  
12 from 2003), in addition to other units planned in FPC's Ten-Year Site Plan.  
13 Contracting with Panda would thus impose uncertainty and market risk on FPC that  
14 it would not have to face if it built the Hines 2 power plant, as planned, by the end of  
15 November 2003. The fact that Panda declined to commit beyond the 5-year period  
16 suggests that Panda may have a favorable view of opportunity sales in the post five-  
17 year time frame. FPC would be forced to enter the opportunity market at this time,  
18 having forfeited the hedging effect of a long-term generation resource in preference  
19 for Panda's short-term supply contract. In addition, FPC would lose the opportunity  
20 to exercise its previously negotiated agreement providing for a below-market price  
21 and other favorable contract terms with its equipment supplier if FPC did not move  
22 forward with Hines 2 in 2003. In all likelihood, FPC would have to pay  
23 considerably more to build even the same unit five years out. If FPC elected to

1 contract with Panda, FPC would lose its place in the queue with its equipment  
2 supplier and forfeit its below-market purchasing opportunity.

3 FPC requested clarification of a number of aspects of Eagle Energy's  
4 proposal as well. For example, Eagle Energy's proposal called for high capacity  
5 costs and low energy costs for the life of the contract. But the proposal omitted any  
6 parent performance guarantees to support the limited capacity performance  
7 guarantees provided by the joint venture subsidiaries. Further, the proposal provided  
8 for capacity liquidated damages not to exceed 10 percent of the capacity charges for  
9 the plant. What this meant was, if the plant were to go out of service for, say, nine  
10 months, FPC would be obligated to pay 90 percent (or more) of the high capacity  
11 charges during these nine months, even though no energy would be delivered. In  
12 addition, FPC would have to go to the market to replace up to 530 MW of capacity  
13 and energy, with no recourse against either TECO or Texaco. This was a significant  
14 concern because, among other things, there is only one (small 35 MW) petcoke  
15 IGCC plant generating electricity in the U.S. today (which happens to be operated  
16 by another Texaco subsidiary), and Texaco declined to provide FPC with proprietary  
17 performance data concerning that plant.

18 FPC asked Eagle Energy whether TECO's or Texaco's parent companies  
19 would be willing to provide guarantees and whether Eagle Energy would be willing  
20 to provide more meaningful capacity liquidated damages in the event of non-  
21 performance. Eagle Energy responded that it was not their intent to accommodate  
22 FPC in either respect.

23

1 IV. EVALUATION OF THE PROPOSALS.

2  
3 Q. Did FPC evaluate both proposals?

4 A. Yes, we did.

5  
6 Q. Please tell us what initial steps you took to conduct your evaluation.

7 A. As I explained, our evaluation actually began from the time we opened the bids.

8 Our first step was to ensure that we had all the information that we had requested in  
9 our RFP to enable a thorough evaluation of all proposals. After taking steps to  
10 acquire anything that was missing, we analyzed the proposals to make sure we  
11 understood what was being offered. As a part of this review, we wrote to and met  
12 with representatives of each bidder to make sure that we understood the proposals  
13 and to obtain clarifying information, as may be needed.

14 After we had fully explored each proposal with representatives of the  
15 bidders, and we were sure we understood what each bidder was offering, we  
16 conducted an analysis of both the price terms and non-price attributes of each  
17 proposal.

18 I should point out that, at the time these proposals were received, we had yet  
19 to receive the result of the Supreme Court's decision in the Duke appeal. Apart  
20 from any impact of that decision on the viability of either of these proposals, we  
21 conducted a full analysis of all other pertinent aspects of each proposal and  
22 concluded that, irrespective of the significant regulatory risk associated with each  
23 proposal, neither proposal would be a superior or even an equivalent alternative to

1 the Hines 2 power plant. Hines 2 appeared to be a significantly superior alternative  
2 to both proposals, even apart from the regulatory risks or prohibitions concerning the  
3 merchant aspects of both projects.

4  
5 **Q. Please explain how you analyzed the price terms of the proposals.**

6 A. The first thing we did was to put each proposal in its best light. Accordingly, in  
7 conducting an analysis of the price terms of the Panda proposal, we had to take steps  
8 to account for the fact that the Panda proposal offered a much shorter contract term  
9 than we needed. The proposal offered options for a contract term of two, three, four,  
10 or five years, for two separate blocks of 250 MW, each priced differently, with  
11 supplemental capacity up to 30 additional MW available to FPC on an incremental  
12 basis. To deal with the shorter contract term and the option of accepting either one  
13 or both of the two differently priced blocks, we used the PROVIEW optimization  
14 module of New Energy Associate's proprietary PROSCREEN modeling tool (1) to  
15 combine various components of the Panda proposal with various other options that  
16 we might pursue (for example, building peakers or combined cycles) to meet the  
17 capacity and term requirements of our need and (2) to compare economic outcomes  
18 based on comparative revenue requirements from a customer perspective (referring  
19 to a comparison of revenues required to support Hines 2 versus the other proposed  
20 scenarios). In optimizing the Panda proposal, the PROVIEW screening run  
21 indicated that the best expansion plan alternative involving a Panda proposal option  
22 would be to contract with Panda for 530 MW for two years (including the additional  
23 30 MW "supplemental" capacity), and then build (or contract for) a generating unit

1 equivalent to Hines 2 at the expiration of the 2-year contract term to meet our need  
2 after the Panda contract expired. Thus, at best, the Panda proposal would not allow  
3 FPC to avoid building Hines 2, but would merely defer the need for the plant (or its  
4 equivalent) by two years.

5 To evaluate the Eagle Energy project, we performed economic evaluations  
6 with PROVIEW based on assumptions that we would contract for either the 530  
7 MW we actually need or the full 750 MW of the proposed plant. In optimizing the  
8 Eagle Energy proposal, PROVIEW indicated that the best scenario involving Eagle  
9 Energy would be to contract with Eagle Energy for the 530 MW of the plant that we  
10 actually needed.

11 The next step was to use PROVIEW to compare the best Panda scenario and  
12 the best Eagle Energy scenario with Hines 2. In each case, Hines 2 proved to be the  
13 superior alternative. See Appendix 5 to (Confidential) JBC-3.

14 Even when both proposals were modeled in the best light, given FPC's  
15 system needs, neither one surpassed the Hines 2 resource option in the initial  
16 screening. FPC could have stopped there. But, because FPC had received only two  
17 proposals in response to its RFP, FPC elected to add an additional screening process  
18 to its evaluation of the two proposals, providing for an even more refined assessment  
19 of both the price and non-price attributes of the proposals. In this supplemental  
20 screening process, neither proposal was omitted, and both were again compared to  
21 the Hines 2 resource option.

22 In the supplemental screening process, we used Henwood Energy Services,  
23 Inc.'s proprietary PROSYM production costing model and an Excel proforma

1 financial spreadsheet to develop more detailed system revenue requirements  
2 comparisons between the options. In doing so, we were able to perform a more  
3 sophisticated comparison of the price attributes of the best Panda option with Hines  
4 2 and of the best Eagle Energy option with Hines 2. The results of these  
5 comparisons, the cumulative present worth revenue requirements (“CPWRR”) of  
6 each resource option, are reflected in Appendix 6 to the Confidential Section of  
7 FPC’s Need Study, (Confidential) JBC-3. This graph depicts the revenue  
8 requirements associated with Hines 2 as the baseline (the horizontal axis) and  
9 depicts the revenue requirements associated with the Panda and Eagle Energy  
10 proposals as the curves above the Hines 2 baseline when they are more expensive  
11 than Hines 2 (and below the line if they are less expensive).

12 As the graph shows, the best Panda scenario would impose revenue  
13 requirements over a 25-year period of at least \$66 million more than the projected  
14 Hines 2 revenue requirements. The projected revenue requirements of the best  
15 Eagle Energy proposal will exceed the projected revenue requirements of Hines 2 by  
16 at least \$302 million over the same 25-year period of time.

17  
18 **Q. Please describe key assumptions and data that you used in making these**  
19 **comparisons.**

20 A. The Company’s forecasts of customers, energy sales, peak demand, fuel, and  
21 economic factors remained consistent with the key forecasts and assumptions used  
22 in the IRP update and Ten-Year Site Plan. Another critical component in the  
23 supplemental screening evaluation of the bids was the analysis of the capital

1 requirements associated with each bid and the Hines 2 resource option. This  
2 analysis allows us to assess both the costs associated with placing each resource  
3 option into service on FPC's system and the impact of those costs on the Company.  
4 One component in this part of our evaluation of the price terms of the bids was the  
5 recognition of the impact of the imputed debt that would be associated with each of  
6 the proposals. The financial community considers long-term contractual  
7 arrangements as analogous to debt obligations of the responsible company. In  
8 recognition of the financial obligation underlying a long-term contract, agencies,  
9 such as Moody's and Standard & Poors, that establish the financial ratings of  
10 companies like FPC will impute an appropriate level of debt in their evaluations of  
11 the company's financial condition representing the cost of the contract, thereby  
12 increasing that company's cost of capital. Consideration of such imputed debt is  
13 required by the PSC rules. Subsection 7 of PSC Rule 25-22.081 (concerning what a  
14 utility must show in its petition for a determination of need) states that "[i]f the  
15 generation addition is the result of a purchased power agreement between an  
16 investor-owned utility and a non-utility generator, the petition shall include a  
17 discussion of the potential for increases . . . in the utility's cost of capital . . . ."

18 When imputing a level of debt associated with a contractual arrangement, a  
19 rating agency will first determine a "risk factor" to be applied to the contract. This  
20 risk factor is statistically determined, based upon the underlying characteristics of  
21 the contract (for example, fixed versus variable payments, provisions for liquidated  
22 damages, etc.). The rating agency will then apply the risk factor to the cumulative  
23 net present value of the projected payment stream associated with the contract to

1 calculate the amount of debt that will be imputed. As a point of reference, Standard  
2 & Poors currently applies a 40 percent risk factor when imputing debt associated  
3 with the Company's existing unit power sale contract with the Southern Company.

4 In order to ensure that imputed debt was accurately reflected in our financial  
5 evaluation process, the Company contacted Standard & Poors to determine what risk  
6 factor the rating agency might assign to the proposals made by the bidders on this  
7 project. Panda's contract would involve a risk factor similar to the factor assigned to  
8 the Company's contract with the Southern Company (~ 40 percent), but the overall  
9 imputed debt would be very small because the contract term, even with the options  
10 included, would be so short. Eagle Energy's contract, however, would involve a  
11 higher risk factor (at least 50 percent and more probably 60 percent or higher),  
12 because it is a longer-term proposal and because it is structured as a "take or pay"  
13 contract. To be conservative (most favorable to Eagle Energy), we used a risk factor  
14 of 40 percent in our evaluations (the same risk factor used to impute debt for our  
15 existing contract with the Southern Company).

16 By multiplying that risk factor against the net present value of capacity  
17 payments under a long-term contract, we obtain the amount of debt that rating  
18 agencies reasonably will impute to the Company's balance sheets due to the  
19 contract. Since electric utilities, like other businesses, try to maintain a reasonable  
20 balance between debt and equity, the Company would need to raise an equivalent  
21 amount of equity (at an after tax cost of equity of roughly 12 percent) to offset this  
22 imputed debt. This is the manner in which a power purchase agreement will lead to  
23 increased capital costs for the Company, and this impact is reflected in Appendices



1 5, and 6, to the Confidential Section of the Need Study, (Confidential) JBC- 3.

2 When imputed debt is taken into account, Hines 2 is clearly superior to both  
3 proposals, on price-related factors alone.

4  
5 **Q. Did you perform any sensitivity analyses?**

6 A. Yes, we did. In addition to the base case analysis performed in the supplemental  
7 screening phase, we examined several sensitivities to identify variances, if any, that  
8 would warrant additional consideration in any of the scenarios. These sensitivities  
9 included a high-fuel price forecast case, a low-fuel price forecast case, and a case  
10 referred to as the "Gulfstream" sensitivity that represented a scenario in which that  
11 proposed competing gas pipeline was developed and lower cost transportation was  
12 available to us.

13 With respect to the Panda proposal, the difference in the CPWRR was  
14 slightly higher in all of the sensitivities, and was highest (\$84 Million) in the  
15 "Gulfstream" scenario, which presumes that Hines 2 would have access to the same  
16 gas transportation option as Panda was depending on.

17 The only case in which the margins narrowed for Eagle Energy was the high-  
18 fuel price forecast case. Since Eagle Energy's proposed energy price was fixed and  
19 all other fuels prices were increasing, the result was expected. However, even in this  
20 case, the Eagle Energy proposal was roughly \$234 Million more expensive than the  
21 Hines 2 option. In the "Gulfstream" scenario, the cost increased to roughly \$366  
22 Million.

1 Overall, the results from the sensitivity analyses were consistent with the  
2 results of the base case analysis, with Hines 2 remaining the least-cost option. The  
3 sensitivity studies helped confirm that Hines 2 was a robust option and that we  
4 should be confident in moving forward with the selection process.

5  
6 **Q. Did you evaluate the non-price attributes of both proposals?**

7 A. Yes, we did.

8  
9 **Q. Please describe your evaluation of the non-price attributes of the proposals.**

10 A. We had identified a number of non-price attributes in our RFP that we anticipated  
11 might be relevant and significant to the evaluation of competing proposals, though  
12 we made clear in our RFP and during the pre-bid meeting that we wanted to  
13 encourage creativity and innovation on the part of prospective bidders, on price and  
14 non-price aspects of any proposal.

15 We reviewed each proposal thoroughly to analyze the strengths and  
16 weaknesses of all non-price attributes of each proposal, and we developed a matrix  
17 reflecting the results of our analysis. We decided not to attempt to assign numerical  
18 values to these factors because (1) the analysis was often subjective, (2) the value of  
19 a particular factor, either pro or con, might differ in the context of different  
20 proposals, and (3) comparing one factor to another would be like comparing apples  
21 to oranges and thus could not be done on an exact numerical basis. The matrices we  
22 prepared reflecting the results of our evaluation of non-price attributes are included

1 as Appendix 7 (Panda) and Appendix 8 (Eagle Energy) to the Confidential Section  
2 of FPC's Need Study, (Confidential) JBC-3.

3 Apart from the clear regulatory risks (or prohibitions) associated with each  
4 proposal, each presented a number of significant non-price detractions. For  
5 example, the Panda proposal, among other things, allowed Panda to walk away from  
6 the project without recourse as late as September 2001 if Panda could not obtain  
7 financing for any reason. This would severely jeopardize FPC's project timetable  
8 and require that we keep alive the prospect of building Hines 2 in the meantime,  
9 which would require continuing costs for regulatory approval, equipment, and other  
10 uneconomic measures. In addition, Panda proposed no backup fuel capability for  
11 the Panda Leesburg power plant. Although Panda indicated it would obtain natural  
12 gas from Gulfstream to serve the Panda Leesburg plant, Panda stated that it would  
13 be able to obtain backup fuel for the plant by having Gulfstream backhaul gas from  
14 FGT's proposed connection with a second 1,000 MW plant Panda proposed to build,  
15 called the Panda Midway plant. This backup fuel plan is unusual and a tenuous  
16 arrangement because it is premised on infrastructure technology – multiple pipelines  
17 and pumping stations – that does not exist in the State of Florida.

18 Additionally, we could see from Panda's documentation that it has begun an  
19 aggressive international development campaign, proposing to grow rapidly from  
20 under 500 MW in operation to almost 9,000 MW in advanced development. Given  
21 that Panda's documentation also indicated that Panda was a relatively new entrant  
22 into generation technology, we were concerned that the development program  
23 apparently underway might tax Panda's ability to successfully finance and operate

1 all of its new generation assets, including the one proposed in its bid to us. On top  
2 of this, we had a history of litigation with Panda regarding contract execution,  
3 interpretation, and implementation, which, while in no way a determinative factor in  
4 our analysis, did cause us to view contractual arrangements with Panda in the future  
5 with caution.

6 The Eagle Energy proposal presented a number of drawbacks as well. For  
7 example, Eagle Energy proposed to place the plant in service in March 2004, while  
8 we expect to place Hines 2 in service at the end of November 2003 to meet our  
9 reliability need in the winter of 2003/04. Notably, the proposal includes a 10  
10 percent cap on liquidated damages, with no parent guarantees, which would shift the  
11 risk of a relatively immature technology and ultimately the performance of the plant  
12 to FPC and its ratepayers. In the absence of parent guarantees, Eagle Energy's  
13 performance assurances did not adequately mitigate significant risks of failure to  
14 meet the in-service date, equipment failure, or failure to perform. The proposal  
15 further allowed Eagle Energy to walk away without recourse as late as the spring of  
16 2002 if financing were not obtained for any reason. Finally, the specific design that  
17 was being proposed, involving petcoke gasification and multi-train units, from all  
18 accounts is a relatively immature and unproven technology, a fact borne out by  
19 TECO's lack of experience with it and Texaco's experience limited to only one 35  
20 MW petcoke IGCC-type unit currently in operation.

21  
22 **Q. What conclusions did FPC reach on the basis of this evaluation?**

1 A. FPC determined that the Hines 2 alternative was clearly superior on price- and non-  
2 price attributes to either the Panda or Eagle Energy proposal. After our thorough  
3 evaluation of both competing proposals, FPC decided to proceed with obtaining the  
4 necessary regulatory approvals to build Hines 2.

5

6 **Q. Does this conclude your confidential testimony?**

7 A. Yes, it does.

8

# THE NEED STUDY

## IN SUPPORT OF FLORIDA POWER CORPORATION'S PETITION FOR DETERMINATION OF NEED OF HINES UNIT 2 POWER PLANT

### CORRECTED CONFIDENTIAL SECTION

#### VI. FPC's Request for Proposals ("RFP").

##### D. RFP Proposals.

FPC received two proposals, one from Panda Leesburg, L.L.C. ("Panda"), and the other from Eagle Energy. Panda is a subsidiary of Panda Energy International, Inc. Eagle Energy is a joint venture project between Texaco Power and Gasification Global, Inc. ("Texaco"), an indirect subsidiary of Texaco, Inc., and TECO Power Services Corporation ("TECO"), an indirect subsidiary of TECO Energy Inc.

In its RFP, FPC asked for supply-side alternatives to its 25-year, 530 MW next-planned generating plant. In its original response to the RFP, Panda proposed to enter into only a two-year system power purchase agreement with FPC for 250 MW, with options to extend for one-year periods for up to three additional years (for a total possible contract period of five years). Panda proposed to support this contract primarily from a planned 1,000 MW gas-fired, combined cycle generating plant – the Panda Leesburg Power Partners, L.P. ("Panda Leesburg") plant – the subject of a presently abated petition for determination of need proceeding before the PSC. (PSC Docket No. 000288-EU). Panda also expressed an ability to provide increased availability of the contracted capacity by providing energy from various sources, including its proposed Panda Midway plant (another proposed 1,000 MW gas-fired, combined cycle plant that is also the

subject of an abated petition for determination of need), as necessary. In its proposal, Panda expressed its intent to commit no more than 500 MW of the total capacity of either plant under firm power purchase agreements, intending to operate the balance of the plants on a merchant basis. Panda proposed capacity payments starting at \$81 per kw-yr, escalating at five percent annually after the second year, and proposed an indexed energy rate. A copy of Panda's full proposal is in Appendix 1 to this Confidential Section of FPC's Need Study.

Eagle Energy proposed to build a significantly larger plant than Hines 2 – initially a net output of 809 MW – at the Hines Energy Complex, using petroleum coke (“petcoke”) feedstock (fuel source) and integrated gasification combined cycle (“IGCC”) technology. After submitting its initial proposal, Eagle Energy reduced the net output to 740 MW and then increased it to 750 MW as Eagle Energy moved through various design revisions. Eagle Energy proposed to place the plant in service in the spring of 2004 – several months after the proposed in-service date for Hines 2 and after the winter season of 2003/04 when additional capacity will be needed by FPC. Eagle Energy offered to contract with FPC for any capacity level between 500 MW and the full 750 MW capability of the Eagle Energy plant, at FPC's discretion, for a 25-year period.

Eagle Energy proposed to obtain the petcoke needed for the plant from Gulf Coast and Caribbean basin refineries. The petcoke would be carried to Tampa Bay by ocean barges, and from the port to the plant site by 250 truck trips a day (approximately one every six minutes, 24 hours/day, according to information supplied by Eagle Energy). The Eagle Energy proposal called for capacity charges of approximately \$230 per kw-yr, escalating at two percent per year, and energy charges of approximately \$3.53 per MWh, escalating at two percent per year for the life of the contract. Significantly, Eagle Energy capped capacity performance penalties at 10 percent of capacity charges, meaning that FPC could be forced to pay 90 percent of the (high)

capacity charges even if the plant failed to run for extended periods of time. A copy of Eagle Energy's full proposal is in Appendix 2 to this Confidential Section of FPC's Need Study.

**E. Requests for Required and Supplemental Information.**

FPC's first step in its evaluation of the RFP proposals was to ensure that it had all the information that it had requested in the RFP to enable a thorough evaluation of the proposals. FPC wrote to and met with representatives of each bidder to obtain clarifying information, as discussed herein.

Both Panda and Eagle Energy omitted information in their original submissions that FPC had required in its RFP. FPC contacted both bidders and asked them for the missing information, which was needed both to make the proposals complete and for FPC to evaluate them fully. Both bidders provided additional information in response to these requests. The requests for required information, and the bidders' responses to those requests, are contained in Appendix 3 to this Confidential Section of FPC's Need Study.

Following FPC's preliminary analysis of the proposals, FPC requested additional information pertinent to the proposals from Panda and Eagle Energy. These requests, and the bidders' responses, are contained in Appendix 4 to this Confidential Section of FPC's Need Study.

In Panda's case, FPC advised Panda, among other things, that no other bidder had offered a proposal that FPC could combine with Panda's 250 MW, 2- to 5-year contract proposal in order to reach FPC's 530 MW, 25-year need. FPC asked if Panda would consider increasing its commitment of MWs and contract duration to better match the need identified in FPC's RFP.

Panda responded with a proposal to enter into a contract with FPC for a second 250 MW block of power – at greater cost than the first 250 MW block. The first 250 MW block of power



was offered at capacity payments starting at approximately \$81 per kw-yr, escalating at 5 percent annually following the initial two-year base period. For the second block, capacity payments started at \$109 per kw-yr and escalated at 3.5 percent annually after the initial two-year period. The indexed formula energy rate was the same for both blocks of power. Additionally, Panda had initially offered to make another 29 MW of supplemental capacity available to FPC at the same capacity price per kW-yr, but with a significant heat rate penalty. In its second offering, Panda included an additional 1 MW of supplemental capacity on the same supplemental capacity terms with the first block to bring its total capacity offered up to 530 MW.

Although both blocks of power were supported by the same proposed plant, Panda Leesburg, Panda's representatives made it clear that Panda was offering a "system sale" where the overall reliability related to generation availability and fuel supply was contingent on construction of both 1,000 MW plants. Panda further made clear that it was not willing to extend the contract term, although it was open to negotiating another contract at the end of the maximum 5-year contract period, with no assurance that the contract would in fact be extended.

FPC requested clarification of a number of aspects of Eagle Energy's proposal as well. For example, Eagle Energy's proposal called for high capacity costs and low energy costs for the life of the contract. But the proposal included capacity liquidated damages capped at 10 percent of the capacity charges for the plant, and failed to provide any performance guarantees from the parent companies of either TECO or Texaco. This was a significant concern to FPC because, among other things, there is only one petcoke IGCC-type plant generating electricity in the United States today, and it is only a 35 MW plant, compared with Eagle Energy's proposed 750 MW plant. That 35 MW plant apparently is also operated by an indirect subsidiary of Texaco, Inc., and Texaco declined to provide FPC with proprietary performance data about the plant.

Further, TECO Energy owns and operates an IGCC plant that uses coal for feedstock, and it has operated at a much lower capacity factor than the 94 percent average projected by Eagle Energy for its proposed new plant. Operation at that capacity factor was therefore deemed uncertain. Yet, with the performance guarantees and liquidated damages structure proposed by Eagle Energy, FPC, not Eagle Energy, would bear the brunt of the financial risks of non-performance.

For this reason, FPC asked Eagle Energy if the parent companies of either TECO or Texaco would provide performance guarantees and if Eagle Energy would provide more meaningful capacity liquidated damages in the event of non-performance. For both requests, Eagle Energy responded that it was not their intent to accommodate these concerns.

**F. Evaluation and Analysis of RFP Proposals.**

After FPC had fully explored each proposal with representatives of the bidders, and FPC was sure it understood what each bidder was offering, FPC conducted an analysis of both the price terms and non-price attributes of each proposal. Before turning first to the evaluation of the proposals on price terms, however, it bears emphasis that, at the time these proposals were received, the Florida Supreme Court had not yet decided the Duke appeal. Independent of whatever impact the Duke decision might have on the legal viability of both proposals, FPC conducted a full analysis of all other pertinent aspects of each proposal. FPC concluded that, irrespective of the significant regulatory risk associated with each proposal, neither proposal would be a superior or even an equivalent alternative to the Hines 2 power plant. Put another way, Hines 2 appeared to be significantly superior to both proposals, even apart from the regulatory risks or prohibitions concerning the merchant aspects of both projects.

### **G. Initial Screening Analysis.**

With respect to the evaluation of the proposals on price terms, FPC began by conducting an individual evaluation of each proposal with the PROVIEW optimization module of New Energy Associate's PROSCREEN model, followed by an evaluation in PROVIEW comparing each proposal to Hines 2. In the initial screening evaluation using PROVIEW, the proposals were placed in the best light possible, given FPC's system requirements. In other words, the PROVIEW model "made the best of" the proposal by developing an optimal expansion plan around each proposal that produced the most cost-effective total plan rather than forcing the proposal to fit into FPC's existing ten-year expansion plan.

For Panda's short-term capacity proposal – 2, 3, 4, or 5-year contracts for two separate blocks of 250 MW, each priced differently, with supplemental, additional capacity of a total of 30 MW available on an incremental basis – this meant that steps were taken in PROVIEW to account for the fact that Panda's proposal offered capacity for a much shorter time period than it was actually needed. The PROVIEW model combined these various components of the Panda proposal with various other generating resource options that might be pursued to meet FPC's full need and arrived at the most cost-effective expansion plan involving the Panda proposal.

PROVIEW indicated that the best (least cost) expansion plan alternative involving a Panda proposal (i.e., the most favorable to the Panda proposal), was to enter into a contract with Panda for 530 MW for two years (including the 30 MW "incremental" capacity), and then to build (or contract for) a generating unit equivalent to the Hines 2 unit at the expiration of the 2-year contract term to meet FPC's additional capacity need after the Panda contract expired. The least cost determination and ranking in PROVIEW is based on cumulative present worth revenue requirements ("CPWRR").

Similarly, to evaluate the Eagle Energy project, FPC performed economic evaluations with PROVIEW based on assumptions that FPC would contract for the full 750 MW of the proposed plant or only the 530 MW that was actually needed. PROVIEW indicated that the best expansion plan involving an Eagle proposal was a contract with Eagle Energy for 530 MW of the Eagle Energy plant, equivalent to the 530 MW capacity FPC actually needed.

For the final step in its initial screening evaluation, FPC took the best expansion plan incorporating the Panda proposal and the best expansion plan including the Eagle Energy options and, using the PROVIEW model, compared them with the Hines 2 expansion plan. In this way, FPC was able to compare the system costs for the best Panda and Eagle Energy resource plans to the Hines 2 expansion plan at the same time and rank them accordingly. In each case, Hines 2 proved to be the superior alternative. The results of these final PROVIEW model runs in FPC's initial screening analysis are contained in Appendix 5 to this Confidential Section to FPC's Need Study.

#### **H. Supplemental Screening Analysis.**

As indicated above, the proposed Hines 2 unit was the least-cost alternative from the initial screening analysis using PROVIEW. Instead of ending its analysis there, however, FPC elected to conduct an additional screening process. Because FPC received only two responses to its RFP, FPC decided to perform a supplemental screening of the two proposals, using the proprietary PROSYM production costing model and a pro forma financial spreadsheet to capture the total system revenue requirements in more detail by including all available information on the capital requirements of each proposal. The supplemental screening process started with the best Panda-based and Eagle Energy-based resource plans from the PROVIEW analysis and compared them to the Hines 2 resource plan in PROSYM, which culminated in a comparison of

the pro forma financial spreadsheets for each option. This part of the supplemental screening process provided FPC a more refined assessment of the price attributes of the two proposals.

The principal output of the PROSYM model is incremental production costs. PROSYM is a more detailed utility-system simulation model. Where PROVIEW simulates utility dispatch results using typical weeks for each month at a time, PROSYM is an hourly production cost model. As a result, PROSYM determines at what capacity a unit is used, for what period of time, and at what cost, based on its likely dispatch interactions with other system resources. The variable system costs generated by PROSYM, however, are only part of the total cost picture. The capital requirements for each proposal — for example, the capacity payments requested by the two bidders and other non-fuel revenue requirements — are taken into account by using a pro forma financial spreadsheet, to which the variable system costs generated by the PROSYM model are also added, in order to get the total revenue requirements for each resource proposal or alternative plan. The results of this analysis using the pro forma financial spreadsheet are developed in CPWRR. This analysis in FPC's supplemental screening of the two bids and the Hines 2 resource plan allowed FPC to assess both the costs associated with placing each resource proposal into service on FPC's system and the impact of those costs on the Company.

The comparisons of the Panda and Eagle Energy expansion plan proposals to the Hines 2 expansion plan from FPC's supplemental screening process is in Appendix 6 of this Confidential Section of FPC's Need Study. Appendix 6 contains a graph depicting the revenue requirements associated with Hines 2 as the baseline for comparison (the horizontal axis), and depicting the revenue requirements associated with the Panda and Eagle Energy expansion plan proposals, respectively, as the curves above (or below) the Hines 2 baseline. As these graphs show, the best Panda expansion plan scenario would impose revenue requirements over a 25-year period at least

\$66 million more than the projected Hines 2 revenue requirements. The projected revenue requirements of the best Eagle Energy expansion plan proposal will exceed the projected revenue requirements of Hines 2 by roughly \$302 million over the same 25-year time period.

In addition to energy price interactions in dispatch and fixed cost comparisons, another critical component of the capital requirements for each bid in FPC's evaluation of the price terms of the bids in both the initial and supplemental screening processes was the cost of imputed debt that would be attributed to each proposal. This assessment is required by the PSC rules and by sound business principles. See Rule 25-22.081(7), F.A.C. This rule, requiring the utility to address "the potential for increases . . . in the utility's cost of capital. . . ," refers to the impact of imputed debt, as assessed by rating agencies (and lenders and investors).

Rating agencies, such as Moody's and Standard & Poors, treat a substantial power purchase agreement, with its attendant commitment to make a stream of fixed payments over a period of years, like a debt obligation, which has a similar commitment to make fixed payments over a term of years. Electric utilities, more so than most other businesses, however, strive to maintain a certain balance between debt and equity on their books because it helps them maintain their credit rating with the rating agencies. The reason they want to maintain their credit rating is because the electric utility industry is a capital intensive industry; thus, funding to support the utilities' capital investments is frequently required. Maintaining their credit rating keeps the utilities' cost of raising such funds down. For when they become "debt heavy," lenders will charge more in fees and interest than they otherwise would and capital investors likewise will demand a greater return in dividends and capital appreciation than they otherwise would to account for the increased risk associated with the increased debt.

To account for this fact, rating agencies assign a “risk factor” to long-term contracts. For example, rating agencies have assigned a risk factor of 40 percent to FPC’s existing unit power sale contract with the Southern Company. The risk factor is statistically determined, based upon the underlying characteristics of the contract (for example, fixed versus variable payments, provisions for liquidated damages, etc.), and other factors that affect the likelihood that the fixed payments will be made over the entire contract period, such as the type of technology and fuel employed by the party contracting with the utility to generate the energy. The rating agency applies the risk factor to the cumulative net present value of the projected fixed payment stream associated with the contract to calculate the amount of debt that will be imputed.

FPC contacted Standard & Poors to determine what risk factor the rating agency might assign to the proposals made by the bidders in response to this specific RFP. Panda’s contract would involve a risk factor (~ 40 percent) similar to the risk factor applied to FPC’s existing contract with the Southern Company, but the overall imputed debt would be small because the contract term, even with the options included, would be so short. Eagle Energy’s contract, however, would involve a risk factor of at least 50 percent (and more likely 60 percent or higher), because it is a long-term, “take or pay” contract, with very high fixed payments. To be conservative (most favorable to Eagle Energy), FPC used a risk factor of only 40 percent in its evaluations. However, the analysts agreed that the Eagle Energy proposal requires much higher fixed capacity payments with less favorable risk of non-performance terms than FPC’s contract with the Southern Company, and thereby would ultimately warrant a higher risk factor.

FPC obtained the amount of debt that the rating agencies reasonably would impute to the Company’s balance sheet due to the Eagle Energy contract by multiplying the risk factor against the net present value of capacity payments, just as the rating agencies would do. To maintain a

reasonable balance between the debt and equity on its balance sheet with the added “debt” from the Eagle Energy contract, the Company would need to raise an equivalent amount of capital (at an after tax cost of equity of roughly 12 percent) to offset this imputed debt. This is the manner in which a power purchase agreement will lead to increased capital costs for the Company, and this impact is reflected in Appendices 5 and 6 to this Confidential Section of FPC’s Need Study. When imputed debt is taken into account, Hines 2 is clearly superior to both proposals on price terms alone.

In addition to the base case analysis performed in the supplemental screening phase, several sensitivities were also examined to identify variances, if any, that would warrant additional consideration in any of the scenarios. These sensitivities included a high-fuel case, a low-fuel case, and a case referred to as the “Gulfstream” sensitivity that represented a scenario in which the proposed competing gas pipeline was developed and lower cost transportation was available to FPC.

**Panda:** With respect to the Panda proposal, the difference in the CPWRR was slightly higher in all of the sensitivities, and was highest (\$84 Million) in the “Gulfstream” scenario, which presumes that Hines 2 would have access to the same gas transportation option as Panda was depending on.

**Eagle Energy:** The only case in which the margins narrowed for Eagle Energy was the high fuel case. Since Eagle Energy's proposed variable cost was fixed and all other fuels prices were increasing, this result was expected. However, even in this case, the Eagle Energy proposal was roughly \$234 Million more expensive than the Hines 2 option. In the “Gulfstream” scenario, the cost increased to roughly \$366 Million.



Overall, the results from the sensitivity analyses were consistent with the results of the base case analysis, with Hines 2 remaining the least-cost option. The sensitivity studies helped confirm that a robust option preference had been identified and that FPC should be confident in moving forward with the selection process.

**I. Non-Price Attributes.**

FPC carefully evaluated the non-price attributes of the Panda and Eagle Energy proposals as well in its supplemental screening analysis. While encouraging innovative proposals, FPC identified in its RFP a number of non-price attributes that might be significant to the evaluation of competing proposals. FPC reviewed each proposal thoroughly to analyze the strengths and weaknesses of all non-price attributes of each proposal. FPC developed a matrix reflecting the results of its analysis. This matrix representing the non-price attributes evaluation for both the Panda and Eagle Energy proposals is included in Appendix 7 and 8 to this Confidential Section of FPC's Need Study.

Apart from the clear regulatory risks (or prohibitions) associated with each proposal, each proposal presented a number of significant detractions from the standpoint of non-price attributes. For example, the Panda proposal, among other things, allowed Panda to walk away from the project without recourse as late as September 2001 if Panda could not obtain financing for any reason. This would severely jeopardize FPC's project timetable and require that FPC keep alive the prospect of building Hines 2 in the meantime, requiring FPC to incur continuing costs for regulatory approvals, equipment, and other uneconomic measures.

In addition, Panda was not proposing any backup fuel capability whatsoever for the Panda Leesburg power plant (or, for that matter, the Panda Midway power plant). Although Panda was proposing to obtain natural gas from Gulfstream to serve the Panda Leesburg plant,

Panda indicated that it would be able to obtain backup fuel for the plant by having Gulfstream backhaul gas from FGT's proposed connection with the Panda Midway plant. This backup fuel plan is unusual and a tenuous arrangement because it is premised on infrastructure technology — multiple pipelines and pumping stations — which does not exist in the State of Florida.

Background documentation that Panda provided FPC with its proposal also disclosed that Panda had begun an aggressive international development campaign. Panda proposed to grow rapidly from a company with under 500 MW in actual operation to almost 9,000 MW in advanced development. The background documentation also demonstrated that Panda was a relatively new entrant into generation technology development and operation. Taken together, these facts caused the Company concern regarding Panda's ability to successfully finance and operate all of its new and proposed generation assets, including the generation proposed in its bid to FPC, as part of the ambitious development program Panda had underway. To add to this concern, the Company had a litigation history with Panda that caused the Company to call into question Panda's contract execution, interpretation, and implementation practices.

The Eagle Energy proposal presented a number of drawbacks as well with respect to non-price attributes. For example, Eagle Energy proposed to place the plant in service in March 2004, after the winter peak period, while FPC expected to place Hines 2 in service at the end of November 2003 to meet its reliability needs in the winter of 2003/04. The proposal also included a 10 percent cap on capacity liquidated damages, with no parent guarantees. This shifted nearly the entire risk of non-performance for any reason to FPC and its ratepayers, a particularly significant risk given the relatively complex and immature technology (from a commercial utility perspective), that Eagle Energy proposed to employ at the plant. The specific design proposed by Eagle Energy, involving petcoke gasification and multi-train units, is a

relatively unproven technology. Indeed, TECO had no experience with it, and Texaco's experience is limited to only one 35 MW petcoke IGCC-type unit currently in operation, for which it declined to provide performance information. In the absence of parent guarantees, Eagle Energy's performance assurances did not adequately mitigate the significant risks of failure by Eagle Energy to meet the in-service date, encounter equipment failure, or simply fail to perform at the level promised.

The Eagle Energy proposal further allowed Eagle Energy to walk away without recourse as late as the spring of 2002 if financing were not obtained for any reason. Again, FPC would have to incur significant expenses to maintain throughout that period its ability to pursue other options to meet its additional capacity needs.

Finally, Eagle Energy's petcoke-to-syngas-to-electrical energy plan using IGCC technology presented several community- and environment-related drawbacks. Petcoke fuel deliveries would require an around-the-clock convoy of trucks from Tampa Bay to the HEC site in Polk County, at least 250 truck trips a day from Eagle Energy's own proposal, thereby adding significantly to the already congested roadways between Tampa and Polk County as a result of TECO's truck deliveries of coal to its existing Polk plant and heavy traffic from the mining operations in the area. In addition to the petcoke deliveries, more trucks would be required to transport the distillate oil, slag, sulfuric acid, and other potentially hazardous chemicals either required for the operation of the IGCC plant or generated by it. This adds to the transportation difficulties presented by the proposal and raises further difficulties associated with the transport, storage, or disposal of hazardous chemicals.

Eagle Energy's IGCC plant would further require significant amounts of water, which is a scarce resource in central Florida. Yet, Eagle Energy placed the burden of finding the water

necessary to operate the Eagle Energy plant on FPC. In FPC's experience, the water sources suggested by Eagle Energy are less likely to supply water for the proposed IGCC plant than Eagle Energy anticipates. Moreover, FPC would have to add an expensive water treatment system to its cooling ponds earlier than anticipated at the site, which is a cost that Eagle Energy did not take into account in its proposal. These non-price attributes, among others, weighed heavily against the Eagle Energy proposal.

Overall, the Hines 2 plant proved superior to both the Panda and Eagle Energy proposals with respect to non-price attributes.

**J. Conclusion.**

FPC concluded, based on a thorough analysis of numerous other supply-side generation alternatives and the two bids FPC received in response to its RFP, that the Hines 2 power plant is the most cost-effective supply-side alternative available to FPC.

Hines 2 was clearly superior on both price- and non-price attributes to either the Panda or Eagle Energy proposal. After FPC's thorough evaluation of both competing proposals, FPC decided not to short-list either one of the bidders, informed both bidders of that decision, and decided to proceed with obtaining the necessary regulatory approvals to build Hines 2.