State of Florida

Public Service Commission

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

DATE: DECEMBER 7, 2000

TO: DIRECTOR, DIVISION OF RECORDS AND REPORTING (BAYÓ)

FROM: DIVISION OF SAFETY AND ELECTRIC RELIABILITY (FUTRELL, HAFF, WOODALL, MCNULTY, BREMAN, BOHRMANN)
DIVISION OF COMPETITIVE SERVICES (MAKIN)
DIVISION OF ECONOMIC REGULATION (LESTER, STALLCUP, HEWITT)
DIVISION OF LEGAL SERVICES (HART, WALKER)

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

AGENDA: 12/19/00 - REGULAR AGENDA - POST HEARING DECISION - PARTICIPATION IS LIMITED TO COMMISSIONERS AND STAFF

CRITICAL DATES: JANUARY 4, 2001 - ORDER TO BE SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO SECTION 403.507(2)(a)2, FLORIDA STATUTES

SPECIAL INSTRUCTIONS: PORTIONS OF THE RECOMMENDATION ARE BASED ON CONFIDENTIAL MATERIAL

FILE NAME AND LOCATION: S:\PSC\SER\WP\001064.RCM

CASE BACKGROUND

On August 7, 2000, Florida Power Corporation (FPC) filed a Petition for Determination of Need for its proposed Hines 2 power plant (Hines 2), a 530 MW natural gas-fired, combined cycle power plant using distillate oil as backup fuel. The plant would be located at the existing Hines Energy Complex (HEC) in Polk County, Florida, and is expected to be placed into service by November 30, 2003. FPC states that the existing infrastructure at HEC, including access roads, cooling pond, a fully sized natural gas lateral pipeline, and other common facilities and manpower resources, will allow FPC to build and operate Hines 2 with significant engineering, construction and operating savings. FPC has previously obtained Site Certification from the Florida Power

Plant Siting Board for the HEC site in order to build the Hines 1 unit and ultimately to locate up to 3,000 MW of generating capacity at the site.

The Commission's jurisdiction and the substantive considerations of this case are governed by Section 403.519, Florida Statutes, which contains the following five areas for review by the Commission in determining the need for an electrical power plant:

(1) the need for electric system reliability and integrity;

(2) the need for adequate electricity at reasonable cost;

(3) whether the proposed plant is the most cost-effective alternative available;

(4) conservation measures taken by or reasonably available to the applicant which might mitigate the need for the proposed power plant; and

(5) other matters within the Commission's jurisdiction which it deems relevant.

Separate public hearings will be held by the Department of Environmental Protection before the Division of Administrative Hearings to consider the environmental and other impacts of the proposed plant.

At the prehearing conference held on October 11, 2000, eight substantive issues were identified for resolution in this proceeding. Issue numbers one, two, and eight have been stipulated by the parties. Issue six was stricken by Order No. PSC-00-1933-PCO-EI.

Panda Energy International, Inc. (Panda), an unsuccessful bidder in FPC's request for proposals (RFP) process, was granted leave to intervene in this proceeding on October 24, 2000, and participated in the hearing. Panda has waived confidentiality of its data filed in this docket.

A hearing was conducted on October 26 and 27, 2000, and briefs were filed on November 15, 2000. Panda's brief includes references to confidential information. Late-filed exhibits that included confidential information were filed by FPC after the hearing. Having considered the testimony and exhibits, as well as the briefs

filed by FPC and Panda, staff makes the following recommendations on the issues.

DISCUSSION OF ISSUES

ISSUE 1: Is Florida Power Corporation an "applicant" within the meaning of the Siting Act and Section 403.519, Florida Statutes?

STIPULATED POSITION: Yes. FPC is an "applicant" within the meaning of the Siting Act and Section 403.519, Florida Statutes.

RECOMMENDATION: Staff recommends approval of the stipulation.

ISSUE 2: Is the output of the proposed Hines Unit 2 fully committed for use by Florida customers who purchase electrical power at retail rates?

STIPULATED POSITION: Yes. The proposed Hines Unit 2 will be fully committed to helping FPC meet its obligation to provide reliable electric service to ratepayers at a reasonable cost. This does not preclude FPC from making wholesale sales inside and outside the state when it is in the best interests of FPC's retail ratepayers. The entire Hines 2 plant will count toward FPC's reserve margin.

RECOMMENDATION: Staff recommends approval of the stipulation.

ISSUE 3: Is there a need for the proposed Hines Unit 2, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

RECOMMENDATION: Yes. Florida Power Corporation has a need for additional capacity, but the need for Hines Unit 2 is primarily driven by cost-effectiveness as discussed in Issue 7. (Futrell, Haff, Woodall, Hewitt, Makin, Bohrmann)

POSITION OF THE PARTIES

FPC: Yes. Beginning in winter 2003/04 and continuing thereafter, FPC needs to add Hines 2 to its system to meet its minimum Reserve Margin planning requirements, to reduce its reliance on dispatchable demand-side resources, and to increase the amount of reserves that are comprised of hard assets.

PANDA: No. Only 37-130 MW of the 567 MW net winter peak capacity of Hines Unit 2 is necessary for Florida Power Corporation (FPC) to meet its agreed upon 20% reserve margin in the 2003-04 winter peak.

STAFF ANALYSIS: FPC has demonstrated a need for additional capacity to meet its 20 percent minimum reserve margin criteria. The decision to construct Hines 2 in the time frame sought, however, is driven primarily by economics, including its equipment arrangements, and the use of the existing Hines Energy Complex. This is discussed further in Issue 7. FPC is projected to grow into the capacity to be provided by Hines 2, particularly given the projected attrition in FPC's residential load management program.

LOAD FORECAST

FPC identifies and justifies its load forecast methodology via its models, variables, data sources, assumptions, and informed judgements. Staff believes that all of these factors have been accurately documented. (EXH 5, JBC-1, pp. 29-45, App. D) FPC utilized a combination of short-term econometric models, and an hourly and annual peak and energy end-use forecasting system. (Id. p. 38) The variables used were obtained from reputable sources and are representative of a valid load forecast model. (Id. p. 38)

FPC has traditionally been a winter-peaking utility. FPC's base-case winter firm demand forecast for the next ten years is projected to increase at an average annual growth rate (AAGR) of 0.51%, considerably below the actual 1990-1999 AAGR of 4.05%.

(Id. p. 18) FPC's base-case summer firm demand forecast for the 2000-2009 period is an AAGR of 0.76%. (Id. p. 15) Overall, FPC's load forecast is reasonable for planning purposes.

RESERVE MARGIN

In Order No. PSC-99-2507-S-EU, Docket No. 981890-EU, the Commission approved the stipulation reached by the peninsular Florida investor-owned utilities (IOUs). These IOUs agreed to implement a 20 percent minimum reserve margin criteria to be fully effective by the summer of 2004. Prior to this stipulation, FPC utilized a 15 percent minimum reserve margin criteria. (TR 125)

FPC's projected reserve margin in the winter of 2003/04 is 18.4 percent, if Hines 2 is not brought into service. (EXH 10, p. 65) FPC needs only approximately 130 MW to precisely reach a 20 percent reserve margin in the winter of 2003/04. FPC will violate its 20 percent minimum reserve margin criterion, in the winter of 2004/05, if Hines 2 is delayed. FPC, therefore, is only accelerating the proposed capacity addition six months in order to meet the stipulation. (TR 288; EXH 5, JBC-1, pp. 69-70, App. D)

Panda argues in its brief that FPC's need is even less (37 MW) if historical residential load management attrition rates are considered. (Panda's Confidential Brief pp. 9-12) Panda questions FPC's projections of residential load management attrition. FPC's projections, however, are based on modifications to its load management program as part of its DSM plan approved by the Commission in Order No. PSC-00-0750-PAA-EG issued April 17, 2000. (EXH 5, JBC-1, pp. III-28-31, App. K; App. L) As a result of these modifications, FPC's residential load management program will become a winter-only program for new participants. (TR 298-99)

FPC has made a corporate decision to meet and exceed the 20 percent minimum reserve margin by the winter of 2003/04. (TR 125, 287; EXH 5, JBC-1, pp. 40-41) This decision is based on a desire to rely more on firm resources to meet demand and on the economics of Hines 2.

Hines 2 will contribute to FPC exceeding its minimum reserve margin over the six years following the in-service date. Winter reserve margins are projected to be between 13.9 and 18.2 percent if Hines 2 is not brought into service. (EXH 10, p. 65) The evidence in the record shows FPC will continue to grow and Hines 2 will contribute to the reliability of FPC's system.

FUEL REQUIREMENTS AND AVAILABILITY

FPC states that natural gas is expected to be the primary fuel for Hines 2. With the current and projected long-term supply of natural gas in the United States, natural gas is a readily available fuel source. Natural gas will be transported to Hines Unit 2 by gas pipeline. (TR 407) FPC expects Hines 2 to burn an average of 65,000 million British thermal units (MMBtu) per day, and 80,000 MMBtu per day during peak operations (TR 412).

Negotiations are ongoing with Florida Gas Transmission (FGT), Buccaneer, Gulfstream, and El Paso for natural gas transportation capacity to Hines 2. (TR 416; EXH 10, p. 38) Currently, there is no signed contract with any pipeline for transportation capacity and supply. (TR 414; EXH 10, p. 38) FGT currently serves Hines 1, and FGT is currently expanding its pipeline and has plans for future expansion. (TR 416) It is unknown at this time what entity will provide gas transportation service to Hines 2, and at what cost.

The existing backup fuel facilities for Hines 1 are to be shared with Hines 2. (TR 407-8; 427) Distillate oil is to be delivered by truck. Storage capabilities provide for up to three days operation at full load for Hines 2. (TR 408) FPC's reliability will be enhanced by the presence of a backup fuel supply in the event of natural gas interruptions or price spikes.

ISSUE 4: Is there a need for the proposed Hines Unit 2, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, Florida Statutes?

RECOMMENDATION: Yes. As discussed in Issue 3, Hines 2 will contribute to the reliability of FPC's system. The cost of the electricity to be provided by Hines 2 appears to be reasonable based on cost-effectiveness. (Futrell, Haff, Woodall)

POSITION OF THE PARTIES

FPC: Yes. Hines 2 is a highly efficient, environmentally benign combined cycle unit. It will provide ratepayers considerable cost benefits through substantial fuel savings, added diversity on FPC's system, economies of scale associated with the Hines site, and significant cost-effectiveness from an installed cost that is below market for equivalent units.

PANDA: No. Since only 130 MW of capacity is needed by FPC in 2003-04, construction of the Hines Unit 2 is not the option that supplies adequate electricity at a reasonable cost. Further, the relevant time frame over which to review the cost effectiveness of this plant is 2003 through 2005, the year in which FPC anticipates that this plant will be removed from rate base regulation. When this time frame is used PEII's lowest priced 250 MW block more closely matching FPC's reserve margin needs could be more cost effective.

STAFF ANALYSIS: FPC has demonstrated that Hines 2 will improve projected reserve margins such that FPC will exceed its minimum reserve margin criteria, as discussed in Issue 3. If Hines 2 is not brought into service, winter reserve margins for the years 2004-2010, will fall below the 20 percent minimum criterion. (EXH 10, p. 65) Thus, the addition of Hines 2 will contribute to the provision of adequate electricity to FPC's system.

Hines 2 will consist of two 170 MW Westinghouse 501F combustion turbines, two heat recovery steam generators, and one 190 MW steam turbine. (TR 425) The natural gas-fired unit is expected to have an equivalent availability factor of 94 percent. Hines 2 is expected to be dispatched as an intermediate unit with a projected capacity factor of 55-64 percent. (TR 429-430)

The total installed cost for Hines 2 is approximately $198,000,000 or $374/kW. (TR 432) This amount does not include approximately $5.6 million in transmission improvements and

additions. (EXH 5, JBC-1, pp. 58-59) FPC's generation equipment arrangement with Siemens Westinghouse has provided FPC with an estimated savings of between $20-$40 million over current market prices for similar equipment. (TR 462-64) FPC's ratepayers will also realize savings due to Hines 2 being built on the existing Hines site. These factors give Hines 2 a cost advantage over other generating technologies and alternatives evaluated pursuant to FPC's Request for Proposals (RFP). Hines 2 is expected to provide electricity at a reasonable cost due to it being the most cost-effective alternative, as will be discussed in Issue 7.

A disadvantage of using the Hines site instead of contracting with Panda or some other provider is that FPC will need a new site that much earlier. The present worth costs of a new site were not factored into FPC's analysis.

Panda argues that Hines 2 exceeds the amount of megawatts needed by FPC to precisely achieve its 20 percent reserve margin. This amount may be lower, Panda states, if historical attrition rates for residential load management are used. However, FPC will violate its reserve margin criterion in succeeding years if Hines 2 is not brought into service when proposed. FPC's projected attrition of residential load management is appropriate to be considered, given that the program has been modified as a winter-only program for new participants. FPC's need for Hines 2 in November 2003 is driven primarily by economics.

Panda also states that the relevant time frame to evaluate the need for Hines 2 is two years (2003-2005), and that if this period is used, Panda's 250 MW block could be more cost-effective. FPC has assumed in its planning process that its ratepayers will be obligated for the costs of Hines 2 for 25 years. In fact, its evaluation of alternatives was based on an analysis of present worth revenue requirements (PWRR) over a 25-year period. Panda suggests that Confidential Exhibit 6, page 26, provides evidence that a two-year evaluation period should be used. Staff disagrees, and believes this exhibit provides evidence of FPC's effort to evaluate Hines 2 if conditions were to change at a point in the future. (TR 299) Staff believes an overall evaluation comparing the effect of each alternative on FPC's system cost over a long-term period is the appropriate tool to evaluate alternatives.

FPC's evaluation of Hines 2 against Panda and the other respondent to FPC's RFP, confidential Bidder B, shows Hines 2 to be more cost-effective. (Confidential EXH 6, pp. 6-8; EXH 10, p. 30) Specifically, in the years 2003 and 2004 Panda's proposal is more costly, as well as over the 25-year evaluation period. This

analysis shows Hines 2 will provide reasonable cost electricity because it is the most cost-effective alternative available.

ISSUE 5: Has Florida Power Corporation met the requirements of Rule 25-22.0826, Florida Administrative Code, "Selection of Generating Capacity," by conducting a fair bid process?

RECOMMENDATION: Yes. FPC's bidding process complied with Rule 25-22.0826, Florida Administrative Code. Whether the bid process was fair is subjective. (Futrell, Haff, Woodall, Lester)

POSITION OF THE PARTIES

FPC: Yes. FPC's RFP and bidding process complied with the PSC's bid rule. The RFP was well crafted to encourage competitive bids, and FPC administered the process and evaluated the resulting bids fairly and appropriately.

PANDA: No. FPC's RFP was biased toward its own self build option Hines Unit 2 for strategic reasons totally unrelated to FPC's ratepayer's interests. Bid evaluation procedures were so vague as to be violative of Rule 25-22.082(4)(d), F.A.C. Key data and PWRR runs were not verified by independent sources. Evaluation time periods were too long. PWRR analyses improperly modeled PEII projects to PEII's detriment.

STAFF ANALYSIS: On January 26, 2000, FPC issued its RFP to solicit proposals for alternatives to Hines 2. (TR 135) FPC met the requirements of Rule 25-22.082(3), F.A.C., by providing notice and disseminating the RFP to the electric industry at large. (EXH 5, JBC-1, p. 53) The RFP provided a detailed description of Hines 2, including the data and information required by Rule 25-22.082(4)(a), F.A.C. (EXH 5, JBC-2, p. 26) The RFP also included the schedule of critical dates for solicitation, evaluation, screening of proposals and any subsequent contract negotiations pursuant to Rule 25-22.082(4)(b), F.A.C. (EXH 5, JBC-2, pp. 1-2) FPC's RFP also listed the price and non-price attributes that would be evaluated, and offered that other non-price attributes not listed were encouraged. (EXH 5, JBC-2) The RFP also included a description of FPC's evaluation methodology for each proposal. (EXH 5, JBC-2, pp. 10-11)

Thirteen companies submitted notices of intent to bid on the project, and twelve attended an optional pre-bid meeting. (TR 136) Ultimately two entities submitted proposals, Panda Energy International, Inc., and confidential Bidder B. (TR 137) Panda's initial offering was for 250 MW for two years, with options to extend for one year periods for up to three additional years. (Corrected Confidential Testimony of John B. Crisp, p. 3) Panda supplemented its initial offering with an additional 250 MW block

of power following meetings with FPC. This was done at FPC's request to match FPC's needed capacity. Panda's second 250 MW block of power was more costly than the initial 250 MW offering. (Corrected Confidential Testimony of John B. Crisp, pp. 6-7)

FPC utilized the PROVIEW optimization model to determine the best alternative on a total system basis to compare against Hines 2. This was of particular significance to Panda due to the option to extend the two year period by up to three years. FPC ultimately determined that a two-year purchase from Panda was the best scenario to compare to Hines 2. (Corrected Confidential Testimony of John B. Crisp, p. 10)

FPC witness Crisp considered the effect of imputed debt in his analysis of generation alternatives. He notes that Standard and Poor's imputes debt based on purchased power contractual obligations. This affects FPC's level of common equity and can affect its cost of capital. Witness Crisp refers to the effect of imputed debt as a "penalty." (TR 308)

Imputed debt affects FPC's choice of Hines 2. FPC shows the effect of imputed debt on revenue requirements for Panda and Bidder B and contrasts that with the Hines 2 revenue requirement. (CONFIDENTIAL EXH 6, pp. 10-12; EXH 10, p. 6) Witness Crisp states that one version of the analysis of Bidder B shows a lower revenue requirement for Bidder B than for Hines Unit 2 when imputed debt is not considered. (TR 307, CONFIDENTIAL EXH 6, p. 11) Imputed debt rises with long-term contracts. Staff is uncertain if imputed debt rises with short-term (up to five years) contracts. The net effect of imputed debt was not a significant issue for the Panda proposal. (TR 264)

Staff believes that for long term debt, the Commission should allow some consideration of imputed debt. Imputed debt is an actual consideration by bond rating agencies. (CONFIDENTIAL PORTION OF EXH 5, JBC-3, pp. 9-11) Staff notes that the Commission has allowed limited consideration of imputed debt in past cases. In Docket No. 990249-EG, Standard Offer Contract for Florida Power & Light Company, the Commission allowed consideration of imputed debt but stated "the broader policy issue of who should bear the incremental cost of additional equity to compensate for purchased power contracts has not been addressed." (See Page 9 of Order No. PSC-99-1713-TRF-EG, issued September 2, 1999) With this qualification, staff believes FPC's consideration of imputed debt in this need determination is appropriate.

The cumulative present worth revenue requirements (CPWRR) analysis showed Hines 2 to be the most cost-effective alternative. FPC then performed a supplemental analysis utilizing PROSYM, which is an hourly dispatch model that provides more detailed CPWRR comparisons. (TR 208) This analysis again showed Hines 2 to be more cost-effective than Bidder B and Panda by approximately $66 million. (EXH 10, p. 30; Confidential EXH 6, pp. 6-8)

Panda argues extensively in its brief that FPC's RFP was biased toward Hines 2 for strategic reasons. Specifically, Panda states that FPC's equipment arrangements with Siemens Westinghouse dictated the timing and selection of Hines 2 and rendered the RFP a formality done to placate the Commission. FPC witness Major testified extensively that while its arrangement with Siemens Westinghouse provided a discount, it required FPC to commit to a production slot in order to achieve commercial operation by the end of 2003. (TR 441-50; 469-70) If FPC had forgone its option, it would have lost the cost advantage for the equipment. The Commission's bid rule requires the IOU to fully disclose its next generating unit. This requires the IOU to have such factors as its equipment cost confirmed.

Panda states that the time periods for evaluation of proposals submitted pursuant to the RFP were too long. As discussed in Issue 4, staff believes a 25-year analysis of total system cost is appropriate. Isolating the analysis to a year-by-year basis shows Panda's proposal to be more costly in the first two years. (EXH 10, p. 30; Confidential EXH 6, p. 6)

Panda also contends that the RFP did not specifically state the models that would be used to evaluate proposals submitted. While Panda is correct, the universe of models used in the industry to evaluate production cost is small. Omitting explicit reference to the models in the RFP is not violative of the bid rule. Whether this is fair is a subjective argument.

ISSUE 6: Stricken pursuant to Order No. PSC-00-1933-PCO-EI.

ISSUE 7: Is the proposed Hines Unit 2 the most cost-effective alternative available, as this criterion is used in Section 403.519?

RECOMMENDATION: Yes. Hines 2 appears to be the most cost-effective alternative over the 25 years during which FPC's ratepayers will be obligated for the costs of the unit. FPC should be responsive to unforseen changes in its forecasts for load, energy, fuel prices, environmental factors and other changes in regulation which may affect continued cost-effectiveness of Hines 2. If the Commission wishes to further explore the policy of obligating customers for the 25-year life of a power plant, a rulemaking docket may be opened. (Futrell, Haff, Woodall, Breman, Lester)

POSITION OF THE PARTIES

FPC: Yes. FPC sought approval to build Hines 2 only after conducting a rigorous internal review of supply-side and demand-side options and after soliciting and thoroughly evaluating competing proposals submitted in response to its RFP. In the end, Hines 2 was the most cost-effective supply-side alternative to meet FPC's need.

PANDA: No, for the reasons discussed in response to Issue 4 and further discussed in Issue 5. Based on the PWRR analyses conducted by FPC, Hines Unit 2 is, at best, no more cost-effective than the PEII bid and at worst being built to satisfy the needs of FPC in a deregulated power market.

STAFF ANALYSIS: FPC's integrated resource planning process evaluates FPC's need for power, available alternatives, including DSM in order to determine its Integrated Optimal Plan. FPC evaluated a variety of traditional and non-traditional supply sources using PROVIEW. (EXH 5, pp. 30-35) In analyzing generation alternatives, FPC incorporated financial assumptions into its PROVIEW model. (EXH 5, pp. 20-21) One key assumption is the discount rate, which is 8.53%. Staff believes this rate is reasonable and notes that it is essentially the weighted average cost of capital that FPC reports in its earnings surveillance reports. (EXH 10, p. 6) The DSVIEW module of PROSCREEN was used to evaluate DSM options. (EXH 5, pp. 35-36)

FUEL PRICE FORECAST

FPC witness Niekum testified on the fuel price forecast FPC used in its Integrated Resource Planning (IRP) (TR 403-417). By agreement of the parties, Mr. Niekum's prefiled direct testimony was inserted into the record as though read, and cross-examination was waived. (TR 401, 418)

FPC's fuel price forecast is a primary input in the IRP process. FPC prepares short-term and long-term price forecasts for the various types and grades of fuels available to and used by FPC to supply its electric generation system. This fuel price forecast is prepared based on an extensive review and a rigorous analysis of available and relevant information and on the past experience of FPC, other Florida utilities, and gas consumers with respect to fuel prices (TR 406).

With assistance from Petroleum Industry Research Associates (PIRA), FPC derived its natural gas price forecast from estimates for the Gulf Coast market area (e.g., Henry Hub and Mobile Bay). (TR 410) FPC also compared PIRA's forecast with the natural gas price forecasts from the U.S. Energy Information Agency (EIA). (TR 410) FPC received quotes from natural gas suppliers who were willing to enter into long-term contracts for gas supplies as an additional input into the forecasting process. FPC estimated gas transportation rates from prevailing FGT tariff rates and expected rates from proposed new pipelines (TR 410). FPC also prepared natural gas forecasts assuming high-price, low-price, and alternative transportation. (EXH 5, p. 11). Staff believes that FPC's fuel price forecasts are reasonable for planning purposes.

While preparing its fuel price forecast, FPC recognized that the spot price of natural gas has recently increased. Although it accepts that price volatility has and will continue to exist, FPC believes that natural gas prices should decrease from current levels over the long term (TR 411). Before expending substantial capital dollars, FPC should review its assumptions periodically to ensure that its fuel price assumptions still reflect real world conditions.

FPC provided price forecasts for natural gas, coal, residual oil, and distillate oil for the forecast period, 2001 through 2020 (EXH 10, pages 8-14). FPC also provided historical prices for these fuels for the period 1980 through 1999 (EXH 14). Staff notes that FPC's base case forecast for natural gas prices falls within the range of price forecasts created by the other sources during the first 10 years after Hines Unit 2 becomes operational. After

2013, FPC forecasts lower natural gas prices than the other sources. However, staff recognizes that price forecasts generally become less precise further out into the future. Staff believes that FPC's fuel price forecasts are reasonable for planning purposes.

EQUIPMENT/SITE IMPACTS

FPC's equipment contract with Siemens Westinghouse plays a critical role in the cost advantage Hines 2 enjoys over the RFP respondents. FPC originally contracted with Siemens Westinghouse to provide the equipment for Hines 1. An option for additional units was included in the original contract, however FPC was required to bring the unit(s) into commercial service by the end of 2003, or forego a favorable pricing discount. (TR 432; 441-450) The contract provides FPC with a discount which is estimated to be between $20-$40 million over current market prices for similar units. (EXH 5, JBC-1, p. 47)

FPC also has a cost advantage over the RFP respondents because it plans to site Hines 2 on the existing Hines site in Polk County. This will require minimal additional site preparation costs compared to a greenfield site which Panda and Bidder B were proposing.

COST-EFFECTIVENESS EVALUATION

FPC's Integrated Resource Planning process established a resource plan with Hines 2, with an in-service date of November 2003, as the least cost plan. (EXH 5, JBC-1, p. 37) This analysis was based on FPC's internal review of alternative technologies, as well as DSM, for meeting FPC's need for power. Once this plan was finalized, FPC issued its RFP in January 2000. (TR 135) As discussed in Issue 5, Panda and confidential Bidder B responded to the RFP. FPC analyzed the proposals, requested additional information to clarify the bids, and performed a detailed evaluation of the impact on FPC's system cost for each bid. As discussed in Issue 5, FPC evaluated purchasing from Panda over a two year period, and then adding units after termination of that contract. The comparative system cost of the Hines 2 option and Panda are as follows:

Year	Hines 2 ($000)	Panda ($000)	Differential ($000)	Cumulative Differential ($000)
2003	$1,253,420	$1,257,585	($4,165)	($4,165)
2004	$1,259,440	$1,275,621	($16,181)	($20,346)
2005	$1,364,272	$1,362,961	$1,311	($19,035)
2006	$1,397,331	$1,400,088	($2,757)	($21,792)
2007	$1,528,628	$1,539,727	($11,099)	($32,891)

(EXH 10, p. 30; Confidential EXH 6, p. 6) Note, Panda has waived confidentiality of its data filed in this docket.

The comparison of Hines 2 to Panda over a 25-year period shows Panda to be more costly by approximately $66 million. Bidder B was considerably more costly than Panda. (Confidential EXH 6, pp. 7-8) FPC's analysis of its RFP responses is appropriate and shows Hines 2 to be the most cost-effective alternative available.

FUTURE REGULATORY TREATMENT OF HINES 2

Staff Witness Dickens suggests that the advent of electric generation restructuring and economic uncertainty raise potential risks for Florida ratepayers. (TR 505, 512) Mr. Dickens encourages the Commission to consider future trends about institutional change, generation technologies, and fuel prices in determining the cost-effectiveness of a need proposal. (TR 512) To do so, Mr. Dickens recommends establishing a short-term prudence review which would periodically evaluate the cost-effectiveness of electric generating units like Hines 2. (TR 513) Rebuttal Witness Cicchetti agrees that the future with regard to regulation is uncertain and that change is inevitable. (TR 628) Dr. Cicchetti asserts, however, that Mr. Dickens proposal would fundamentally change the regulatory compact as Florida practices it. (TR 513-514) The question of whether and how the Commission should factor the reality of coming changes, into the decision on FPC's petition is clearly a point of disagreement between the witnesses.

Staff believes the Commission should point out to FPC that despite the uncertainty of the future, it is still the company's statutory responsibility to continually seek to provide the lowest cost service to its ratepayers. This includes monitoring the market for changes which could impact the cost-effectiveness of Hines 2 before and during the early stages of construction before

a substantial outlay of capital dollars. A rulemaking docket may be an appropriate vehicle for the Commission to further explore the policy issue of obligating customers to the 25-year life of a power plant.

ISSUE 8: Are there any conservation measures taken by or reasonably available to Florida Power Corporation which might mitigate the need for the proposed power plant?

STIPULATED POSITION: There are no conservation measures taken by or reasonably available to FPC which might mitigate the need for the proposed power plant.

RECOMMENDATION: Staff recommends approval of the stipulation.

ISSUE 9: Based on the resolution of the foregoing issues, should the Commission grant Florida Power Corporation's petition to determine the need for the proposed Hines Unit 2?

RECOMMENDATION: Yes. (Futrell, Haff, Woodall)

POSITION OF THE PARTIES

FPC: Yes.

PANDA: No. FPC has not demonstrated that it has a need for the 530 MW Hines Unit 2 in 2003 nor that Hines Unit 2 is the most cost effective means of meeting the 37-130 MW of need that it has provided support for in 2003. Florida ratepayers should not be asked to pay for a plant which is being constructed to serve FPC's predicted deregulated market needs.

STAFF ANALYSIS: FPC's petition for determination of need for Hines 2 meets the statutory requirements of Section 403.519, Florida Statutes, as discussed in prior issues and summarized here:

- The addition of Hines 2 will allow FPC to meet its 20 percent reserve margin given its projected attrition in residential load management.
- Hines 2 will help ensure that FPC does not violate its Commission-approved stipulation to increase reserves to at least 20 percent by the summer of 2004.
- Hines 2 will allow for a transition from reliance on load management to generation for reserves.
- The equipment supply arrangements for Hines 2 provides a benefit to FPC's ratepayers in that it is between $20-$40 million below current market costs.
- If Hines 2 is deferred additional cost of equipment may be added, in addition to cost of another RFP.
- FPC's evaluation of alternative supply options, DSM options, and its RFP analysis shows Hines 2 to be the most cost-effective option in the short-term and over the long-term.
- FPC should continue to monitor the market for changes which could impact the cost and ultimately the need for Hines 2.

- There are no conservation measures taken by or reasonably available to FPC which might mitigate the need for the proposed power plant.

Based on the discussion above, which summarizes other issues within this recommendation, staff believes FPC's petition satisfies the statutory criteria. Staff recommends, therefore, the FPC's petition for determination of need for Hines 2 be granted. FPC should continue to monitor the cost-effectiveness of Hines 2 prior to committing substantial capital dollars.

ISSUE 10: Have all requests for confidentiality been addressed?

RECOMMENDATION: Yes. (Hart, Walker)

STAFF ANALYSIS: All requests for specified confidential treatment filed prior to hearing have been addressed by order of the prehearing officer. FPC's request for confidential classification of Document No. 14201-00, FPC's Late Filed EXH 16, is pending. Panda's brief included references to confidential information, without a request for confidential classification. The treatment of Panda's brief was discussed at hearing and agreed that the confidential brief would be provided under seal, and a redacted brief would be the public record brief. Panda asserted in a letter dated November 30, 2000, that all references in the brief were to information already deemed confidential by the prehearing officer. Staff agrees that no separate request for confidential classification is necessary, and Panda's brief should be deemed confidential.

ISSUE 11: Should this docket be closed?

RECOMMENDATION: The docket should be closed after the time for filing an appeal has run.

STAFF ANALYSIS: The docket should be closed 32 days after issuance of the order, to allow the time for filing an appeal to run.