ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to Determine Need for Hines Unit 3 in Polk County by Florida Power Corporation	)	DOCKET NO.: 020953
	)	Submitted for filing: December 27, 2002

FLORIDA POWER CORPORATION'S POST-HEARING STATEMENT OF ISSUES AND POSITIONS AND BRIEF IN SUPPORT OF ITS PETITION FOR DETERMINATION OF NEED FOR AN ELECTRICAL POWER PLANT

AUS
CAF
CMP
COM 3
CTR
ECR
GCL
OPC
MMS
SEC 1
OTH

JAMES A. MCGEE
Associate General Counsel
PROGRESS ENERGY SERVICE COMPANY, LLC
100 Central Avenue
St. Petersburg, Florida 33733
Telephone: (727) 820-5184
Facsimile: (727) 820-5519

GARY L. SASSO
Florida Bar No. 622575
JILL H. BOWMAN
Florida Bar No. 057304
W. DOUGLAS HALL
Florida Bar No. 347906
CARLTON FIELDS, P.A.
Post Office Box 2861
St. Petersburg, FL 33731
Telephone: (727) 821-7000
Telecopier: (727) 822-3768

TABLE OF CONTENTS

FLORIDA POWER CORPORATION'S POST-HEARING STATEMENT OF ISSUES AND POSITIONS AND BRIEF IN SUPPORT OF ITS PETITION FOR DETERMINATION OF NEED FOR AN ELECTRICAL POWER PLANT

On September 4, 2002, pursuant to Section 403.519, Fla.Stats., and Rules 25-22.080-.081, F.A.C., Florida Power Corporation ("FPC" or the "Company"), petitioned the Florida Public Service Commission ("PSC" or the "Commission"), for an affirmative determination of need for its Hines Unit 3 power plant ("Hines 3"). The Commission conducted a hearing on FPC's petition on December 3, 2002. Based on the record in this case, FPC submits that Hines 3 meets all the requirements of Section 403.519. The undisputed evidence demonstrates conclusively that what determined the outcome of FPC's resource selection in this instance was the price, not the process. The Commission should therefore grant FPC's petition.

Pursuant to the Pretrial Order, FPC submits herein its Post-Hearing Statement of Issues and Positions and its Brief in Support of its Petition for Determination of Need for an Electrical Power Plant.

I. FPC'S POST-HEARING STATEMENT OF ISSUES AND POSITIONS

FPC's Basic Position.

* FPC needs Hines 3 commencing in winter 2005/06 to provide crucial power plant support for reliability reserves, to diversify generating resources, and to provide adequate electricity at a reasonable cost. FPC has examined demand side options and cannot mitigate this need through conservation. Hines 3 is FPC's most cost-effective alternative. *

Issue 1: Is there a need for the proposed Hines Unit 3, taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519, Florida Statutes?

FPC: *Yes. Through FPC's planning process, the Company identified Hines 3 as its next-planned generating addition. The Company needs Hines Unit 3 to meet its 20% Reserve Margin planning criterion for the Winter 2005/2006 and to appropriately balance its supply-side and demand-side resources. *

Issue 2: Is there a need for the proposed Hines Unit 3, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519, Florida Statutes?

FPC: *Yes. As proven through the evaluation of supply-side and demand-side alternatives, and FPC's evaluation of competing bids, Hines 3 provides the most cost-effective alternative providing customers with benefits associated with economies of scale with the Hines site and below-market equipment costs while meeting FPC's need. *

Issue 3: Has Florida Power Corporation met the requirements of Rule 25-22.082, Florida Administrative Code, "Selection of Generating Capacity"?

FPC: *Yes. FPC complied with all aspects of the "bid rule." After a thorough analysis of the bids it received in response to its Request for Proposals, FPC concluded that Hines Unit 3 was the most cost-effective supply-side alternative available to FPC to meet its need for power. *

Issue 4: Is the proposed Hines Unit 3 the most cost-effective alternative available, as the criterion is used in Section 403.519?

FPC: *Yes. FPC's detailed economic analysis of supply-side alternatives found Hines 3 to be over $ 92 million (2002 dollars) less expensive than the least cost alternative proposal. The least cost Greenfield Proposal (another combined cycle plant) was found to be more than $187 million (2002 dollars) more expensive than Hines Unit 3. *

Issue 5: Are there any conservation measures taken by or reasonably available to Florida Power Corporation which might mitigate the need for the proposed power plant?

FPC: *No. The Company has attempted to avoid or defer constructing the unit by considering and pursuing all demand-side options reasonably available to it, but the Company has nonetheless concluded that it cannot avoid or defer its need to build the unit. *

Issue 6: Has Florida Power Corporation adequately ensured the availability of fuel commodity and transportation to serve Hines Unit 3?

FPC: *Yes. Hines 3 will have the ability to obtain natural gas that is both economic and readily available from two interstate gas pipelines, and will also be constructed so that distillate oil can be used as back-up fuel. *

Issue 7: 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 3?

FPC: *Yes. For the foregoing reasons, as more fully developed in the testimony and exhibits filed by FPC in this proceeding and at the hearing, the Commission should grant FPC's petition for a determination of need for the proposed Hines Unit 3. *

Issue 8: Should this docket be closed?

FPC: *Yes, following the issuance of an affirmative determination of need for Hines Unit 3. *

II. BRIEF IN SUPPORT OF FPC'S PETITION

A. Introduction.

FPC has demonstrated that it is entitled to an affirmative determination by the Commission that Hines 3 is needed within the meaning of Section 403.519, Fla. Stat. Specifically, FPC needs Hines 3 to maintain the reliability and integrity of its system beginning in the winter of 2005/2006.

Hines 3 will enable the Company to honor its commitment to the Commission to maintain minimum planning reserves of 20% and will significantly improve not only the quantity of the Company's reserves, but also their quality as well. Specifically, Hines 3 will shore up FPC's physical reserves so that they will be sufficient to meet the loss of the Company's largest unit. This will reduce FPC's reliance on demand-side management, which in recent years has made up a majority of Florida Power's reserves. FPC's reliability need cannot be met by utilizing additional load management or conservation measures. As FPC has shown, only additional supply-side resources can adequately meet the Company's need to ensure the reliability of its system and to provide appropriate diversity in the Company's supply-side resource mix.

Hines 3 is a state-of-the-art combined cycle unit that will be highly efficient and environmentally benign. FPC can build the unit at a cost significantly below the current market costs for equivalent units. This was demonstrated through the Company's Request for Proposals ("RFP") to third-party power suppliers. Hines 3 will also increase

the fuel and operational diversity of FPC's system and will flexibly operate as an intermediate or baseload unit depending upon existing and future system requirements.

Hines 3 emerged as the most cost-effective option when compared internally to other supply-side alternatives and to supply-side generation alternatives available on the market. After conducting a thorough internal review of generation alternatives, the Company concluded that Hines 3 constituted the Company's best self-build alternative. Accordingly, the Company selected Hines 3 as FPC's "next-planned generating alternative." When Hines 3 was subsequently evaluated against resources available in the market through the Company's RFP process, Hines 3 proved to be the most cost-effective resource for FPC's ratepayers by a significant margin.

As we will discuss more fully herein, FPC has demonstrated conclusively that it needs Hines 3 for reliability, that Hines 3 will provide FPC's ratepayers adequate electricity at a reasonable cost, and that Hines 3 is the most cost-effective generation resource available to meet FPC's need. No competent and substantial evidence to the contrary exists in the record. It follows that FPC's petition for determination of need for Hines 3 should be granted.

B. FPC has Met the Applicable Statutory Standard for its Petition.

Section 403.519 governs FPC's petition for a determination of need. It provides that the Commission "shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, . . . whether the proposed plant is the most cost-effective alternative available . . . [and] the conservation measures taken by or reasonably available . . . which might mitigate the need for the proposed plant . . .." Section 403.519, Fla. Stats. As we show below, each element of Section 403.519

has been affirmatively established by the preponderance of the evidence—in fact, by undisputed evidence—in this proceeding. Accordingly, FPC's petition should be granted.

1. Electric System Reliability and Integrity.

The undisputed evidence in this case demonstrates that the Company needs to place Hines 3 in service beginning in the winter of 2005/2006 to maintain system reliability and integrity and to serve firm load. As John B. Crisp, FPC's Director of Integrated Resource Planning, explained, FPC's need arises from (a) expected growth in demand from FPC's customers, (b) FPC's need to meet its 20% minimum Reserve Margin Planning Criterion, and (c) FPC's need to ensure appropriate diversity in the Company's supply-side resource mix and to balance its supply-side and demand-side resources. (Comp. Ex. 1, JBC-1, pg.75-76). This evidence is undisputed.

a. Hines 3 meets FPC's growing demand for electricity in its service area.

FPC projects that the average growth of the Company's firm load between 2002/03 and 2006/2007 will be approximately 159 MW per year. (Comp. Ex. 1, JBC-2). This projection is based upon FPC's demand and energy load forecast, which is developed annually for a ten-year planning horizon. (Comp. Ex. 1, JBC-1, p. 19). In making this projection, FPC relies on the research efforts of both internal and external independent sources to gather and analyze demographic information in the area, and FPC employs the latest long-term forecasting and short-term econometric models that are well accepted and widely used in the electric utility industry. (Comp. Ex. 1, JBC-1, p. 20). Thus, FPC projects that it will experience significant growth in firm demand for capacity

and energy over the Company's planning horizon, and this, in turn, imposes upon FPC a corresponding obligation to meet that demand with additional, adequate resources.

In the face of this evidence, the intervenor in this case, the Partnership for Affordable Competitive Energy ("PACE") asserts without substantiation that the Company is seeking to build Hines 3 not to serve firm load but to engage in speculative wholesale transactions.[1] PACE bases this claim on a press release that does not discuss or concern Hines 3 or the basis for this project. The actual evidence in this case demonstrates conclusively that the need for Hines 3 is driven by retail load growth as evidenced in FPC's Ten-Year Site Plan—not by any strategy to increase wholesale sales in the State of Florida. As explained by Mr. Crisp, FPC's need for Hines 3 has nothing to do with increasing wholesale sales. To the contrary, the need for Hines 3 is being driven by increased residential load, not wholesale load. (Tr. 71-73).

Further, the need for Hines 3 in 2005 was identified in FPC's Ten-Year Site Plan several years before FPC's recent announcement concerning increased wholesale sales, and, likewise, the Company's RFP was issued many months before that announcement. PACE's allegations in this regard are unfounded. (Tr. 84-85).

b. Without Hines 3, FPC will not be able to meet its 20% Reserve Margin planning criterion.

The Company made a solemn commitment to this Commission in the Reserve Margin Docket that it would adopt a 20% minimum Reserve Margin Planning Criterion no later than the Summer of 2004. (Comp. Ex. 1, JBC-1, p. 15 and App. E). The

[1] None of PACE's members who submitted a bid in response to the Company's RFP intervened in the proceeding to claim that it had offered a more cost-effective alternative than Hines 3.

Company needs to build Hines 3 to honor this commitment and to meet the concerns of the Staff and Commission in that docket concerning the quality and quantity of reserves in peninsular Florida. Without the addition of Hines 3, the Company's Reserve Margin will decrease to 17% in 2005/2006 and then to 14% by 2006/2007. Hines 3 will enable FPC to satisfy its commitment to maintain a minimum 20% Reserve Margin to meet unforeseen exigencies. (Comp. Ex. 1, JBC-1, p. 16, Table 3).

Table 3. Forecast of Winter Demand and Reserves With and Without Hines 3

	Net Firm Demand (MW)	Resources Without Hines 3 (MW)	Reserves Without Hines 3 (MW)	Reserve Margin Without Hines 3	Reserves With Hines 3 (MW)	Reserve Margin With Hines 3
2002/03	8,559	9,877	1,318	15%	1,318	15%
2003/04	8,583	10,459	1,876	22%	1,876	22%
2004/05	8,779	10,653	1,874	21%	1,874	21%
2005/06	8,966	10,507	1,541	17%	2,123	24%
2006/07	9,195	10,502	1,306	14%	1,888	21%

Notes: Average load growth (2002/03 – 2006/07) = 159 MW/Year.
Resources include the addition of Hines 2 in December 2003 and a combustion turbine in December 2004.

In stark contrast to the position advocated by independent power producers in the Reserve Margin docket, PACE suggested at the hearing that the Company may not need to maintain a minimum margin of 20% in planning reserves in order to maintain system reliability. Even putting aside the fact that this argument amounts to an attack on the existence of the need that PACE's members are supposedly eager to serve, PACE's contention is incorrect. FPC's agreement to move from a 15% Reserve Margin planning criterion to a 20% minimum Reserve Margin planning criterion was based on substantial and legitimate concerns voiced by the Commission's Staff in the Reserve Margin docket

that the reserves maintained by investor owned utilities ("IOUs") in Peninsular Florida were dangerously low. (Tr. 92-95).

Mr. Crisp testified that, as a matter of planning judgment, planning to a minimum 20% Reserve Margin planning criterion was appropriate for a utility like FPC operating in Peninsular Florida and that it provided FPC with important flexibility in managing unplanned contingencies, such as the loss of the Company's largest unit or extreme weather conditions. (Tr. 58, 94-95). Mr. Crisp also noted that the special nature of Florida's peninsular system created a need for generation inside the state to satisfy reliability concerns, as the Company had limited ability to draw upon resources outside the state. (Tr. 95).

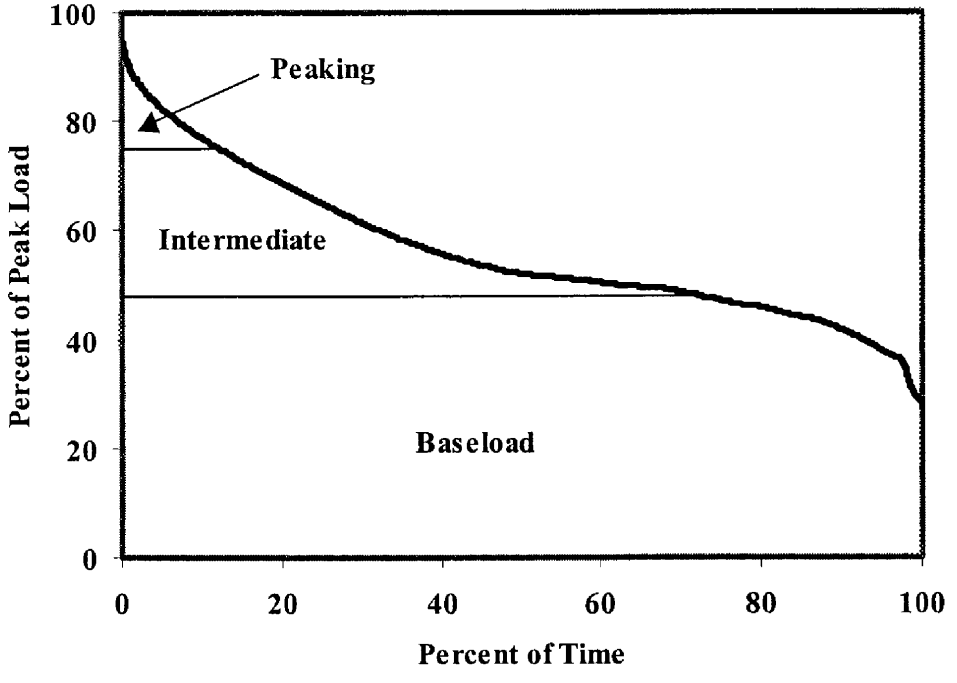
c. The addition of Hines 3 helps ensure appropriate diversity in the Company's supply-side resource mix and provides balance to its demand-side resources.

The Company's resource planning process demonstrated that a combined-cycle unit like Hines 3 best served the Company's intermediate and baseload need. Specifically, the Company determined that it had a need for an intermediate supply-side resource in the 2005/2006 timeframe. (Tr. 36). This may be seen by examining the Company's system load duration curve, which is a plot of annual hourly firm load in descending order of magnitude. For example, the graph below (Comp. Ex. 1, JBC-3) shows a typical curve representative of the 2005/2006 time frame for FPC's system. The graph depicts hourly load as a percentage of annual peak. Overlaid on the curve are the amounts of the Company's baseload, intermediate, and peaking resources available during the 2005/2006 time frame without the addition of Hines 3. A utility's load duration curve is important because it demonstrates the duration of any particular level of

demand (base, intermediate, or peaking). It is this duration of demand, as well as the level, that dictates the type of generating units the utility needs to meet its customer demand. (Id. at 36). In this case, the load duration curve shows a need to add intermediate capacity. Thus, adding Hines 3 to the Company's system will enable the Company to meet its 20% Reserve Margin planning criterion in the way best suited to the Company's system needs in the 2005/2006 time frame. (Tr. 37).

Florida Power System

Typical Load Duration Curve (2005-2006)



Apart from improving the quantity of the Company's planning reserves, Hines 3 will significantly enhance the quality of those reserves by providing sufficient physical

reserves to cover the loss of FPC's largest unit. (Tr. 58, 95-96). Although FPC does not employ a target percentage for balancing physical assets and demand-side programs, FPC is seeking to buttress its physical reserves in light of its recent experience with attrition from demand-side programs. As Mr. Crisp testified, FPC wishes to have a proportional amount of physical reserves to make its system sufficiently robust so that FPC can cover the loss of its single largest unit without interrupting customers through the use of its DSM programs. (Tr. 58).

d. Hines 3 can meet the FRCC's underfrequency requirements, and, in any event, the risk of a severe underfrequency event on FPC's system is de minimus.

Hines 3 will incorporate two Siemens Westinghouse combustion turbines. (Ex. 14.) During the course of this proceeding, the Commission Staff identified a potential concern that the Siemens Westinghouse CTs may not be designed for repeated underfrequency operation and that current relay settings for these CTs may cause them to shut down in .5 seconds given an extreme underfrequency event under 58 Hz. The Staff pointed out that the new FRCC underfrequency guidelines require a relay setting of 1.0 seconds for operation under 58 Hz. (Ex. 13).

In view of this concern, FPC has made a commitment to the Commission that when Hines 3 is connected to the Florida transmission grid it will be in compliance with the FRCC's underfrequency standards. In considering this issue, it is important to distinguish between two very different concerns: (1) the Staff's concern about compliance with FRCC guidelines designed to avoid interruptions on the grid, and (2) a concern about potential damage to the CTs, which does not threaten the reliability of the grid.

The Company can readily meet the first concern (i.e., avoiding violation of FRCC guidelines and interruptions on the grid) by taking the simple step of manually changing the relays on the Westinghouse CTs. As explained by Mr. James J. Murphy, FPC's Manager of Power Plant Construction, Hines 3 may be brought into compliance with FRCC standards simply by re-setting the relay in the CT, at zero cost. (Tr. 254). Thus, FPC is presently capable of bringing Hines 3 into compliance with FRCC standards, literally at the flip of a switch.

At the hearing, PACE spent a good deal of time asking questions that deal with the second issue, namely, the remote possibility that operating the CTs under extreme (and extremely improbable) underfrequency conditions might cause future damage to the CTs themselves, necessitating inspections or repairs. The actual evidence in this case, as opposed to speculation, establishes that this is not a concern.

First, Siemens Westinghouse has made a commitment to FPC that it will solve the technical issues relating to the potential operation of the CTs in underfrequency conditions before the CTs are placed into service. (Tr. 259, Ex. 14). Second, the likelihood of an underfrequency event below 58 Hz on FPC's system is so remote that the prospect of actual damage to the CTs from an underfrequency event is de minimus. Indeed, FPC has never experienced an underfrequency event under 58Hz on its system, and the last underfrequency event below 58Hz in the state occurred over 25 yeas ago on another utility's system. (Tr. 74, 246-247, 254).

Ultimately, the risk of damage to these CTs is negligible, manageable, and not different in degree from the risks inherent in <u>any</u> sophisticated power plant equipment. No CTs are perfect. (Tr. 74-75) For example, GE's CTs operate in Florida everyday with

a Z-notch blade problem, where the Z-notch joints can collapse and be ingested into the system. (Tr. 75) GE units also face failure with compressor blade tips and hydrogen leaks. (Id.).

The important point is that FPC can and will bring Hines 3 into service in compliance with the FRCC's underfrequency requirements in 2005, and it has several alternatives available to avoid even the second concern of potential damage to the CTs in extremely improbable circumstances.

In sum, FPC's need for 582 MW in the winter of 2005/2006 to ensure system reliability and integrity is established beyond dispute. With certainty, Hines 3 meets the growing demand on FPC's system and is correctly selected to meet FPC's overall intermediate-load system needs. FPC needs Hines 3 to meet its minimum 20 % reserve margin planning criterion and to balance its supply-side and demand-side resources. The undisputed evidence demonstrates that Hines 3 is needed to enhance FPC's electric system reliability and that its addition will positively, not negatively, impact the integrity of the system.

2. Adequate Electricity at a Reasonable Cost.

FPC has demonstrated by undisputed evidence that Hines 3 will provide its ratepayers with adequate electricity at a reasonable cost. To begin with, Hines 3 is a state-of-the-art, highly efficient, combined cycle unit. (Comp. Ex. 1, JBC-1, p. 6). Combined cycle units are the preferred technology of independent power producers and utilities alike engaged in developing electrical power plants today. The preference for this technology is demonstrated by the most recent need determination proceedings before this Commission, namely Florida Power & Light's Petition to build nearly 2000

MW of combined cycle capacity at that utility's Manatee and Martin sites. See, e.g., Order No. PSC-02-1743-FOF-EI, approving the self-build selection of combined cycle capacity to meet FP&L's needs for the Summer 2005 and 2006.

Similarly, in this docket, PACE's own members each proposed similar combined cycle units in response to FPC's RFP, albeit significantly more expensive Greenfield plants. (Ex. 10 and Tr. 42). Indeed, the least-cost Greenfield proposal would cost $187 million (2002 dollars) more than Hines 3. (Tr. 106).

Hines 3 will be located at the Hines Energy Complex and will consist of a two-on-one combined cycle unit, with two combustion turbines, two unfired heat recovery steam generators ("HRSG"), one steam turbine, and a closed-cycle cooling water system. (Comp. Ex. 1, JBC-1, p. 6). The plant's combustion turbines will be dual-fueled units capable of operating on natural gas or distillate oil. Natural gas will be the primary fuel available from either of two separate on-site gas pipelines. (Id.) Oil may be used as backup fuel in conditions where gas is either unavailable or uneconomic. (Comp. Ex. 1, p. 6). Hines 3 is intended essentially to replicate Hines 2 with a 91 % equivalent availability factor and a 3% forced outage rate. Hines 3 will also have an excellent heat rate, operating at an average full load summer and winter heat rate of 6900 Btu/kWh. (Tr. 229). This beneficial heat rate, as well as the high availability and responsiveness of Hines 3, along with other attributes, will provide the Company with a low-cost, highly flexible source of power. (Tr. 223, 232)

By locating Hines 3 at the Hines Energy Complex, FPC will obtain for its customers substantial economies of scale, contributing to the cost-effectiveness of Hines 3. (Tr. 222). For instance, Hines 3 will require the addition of only a handful of

employees, many fewer than would be needed at a Greenfield site. (Tr. 49). The $231 million dollar project cost for Hines 3 (without AFUDC) reflects (1) competitive equipment pricing because the Company was able to negotiate and preserve beneficial combustion turbine equipment pricing and other favorable contract terms (for example, performance guarantees and liquidated damages), and (2) the ability to share common site utilities and facilities with Hines 1 and 2, thus reducing or eliminating the site development and construction cost and associated facilities costs the Company would have otherwise incurred. (Tr. 228-229).

In addition, FPC has squarely established that sufficient natural gas transportation to the Hines Energy Complex will be available to meet the needs of Hines 3. (Tr. 275-278). The existence of two natural gas pipelines already running to the site will create greater competition and undoubtedly permit FPC to obtain sufficient gas for Hines 3 at a reasonable cost. (Tr. 275). Moreover, FPC's fuel forecast has been demonstrated to be appropriate and reasonable when compared to other widely recognized and generally accepted fuel forecasts, and the expected expansion of natural gas exploration in the United States gives FPC confidence that sufficient reasonably priced natural gas will be available to meet the requirements of Hines 3. (Tr. 273-276; Comp. Ex. 15, PRM-1).

Finally, Hines 3 will provide significant environmental benefits. The plant will offer one of the cleanest sources of fossil generation available today. (Comp. Ex. 1, JBC-1, p.11) Since the Hines Energy Complex was originally certified for a total of 3,000 MW of ultimate site capacity, the Company will be able to reduce permitting costs. FPC need file only a supplemental site certification process, which will require less time and

expense than might be involved in obtaining approval to develop a Greenfield site. (Comp. Ex. 1, JBC-1, p. 11, Tr. 293).

Thus, FPC has demonstrated conclusively that Hines 3 will best enable the Company to provide its customers with adequate electricity at a reasonable cost. There is no evidence to the contrary, and indeed, there is evidence that to deny FPC's petition would actually result in increased system production costs in 2006 of $25 million dollars to the detriment of FPC's customers. (Tr. 44).

3. Most Cost-Effective Alternative Available.

The Company reached the conclusion that Hines 3 was the most cost-effective alternative available to it to meet its reliability needs only after an exhaustive internal review of both demand-side and supply-side options and a complete, critical, and fair evaluation of Hines 3 in comparison with the alternatives identified through FPC's RFP process. (Comp. Ex 1, JBC-1, pp. 28 – 74, App. J.)

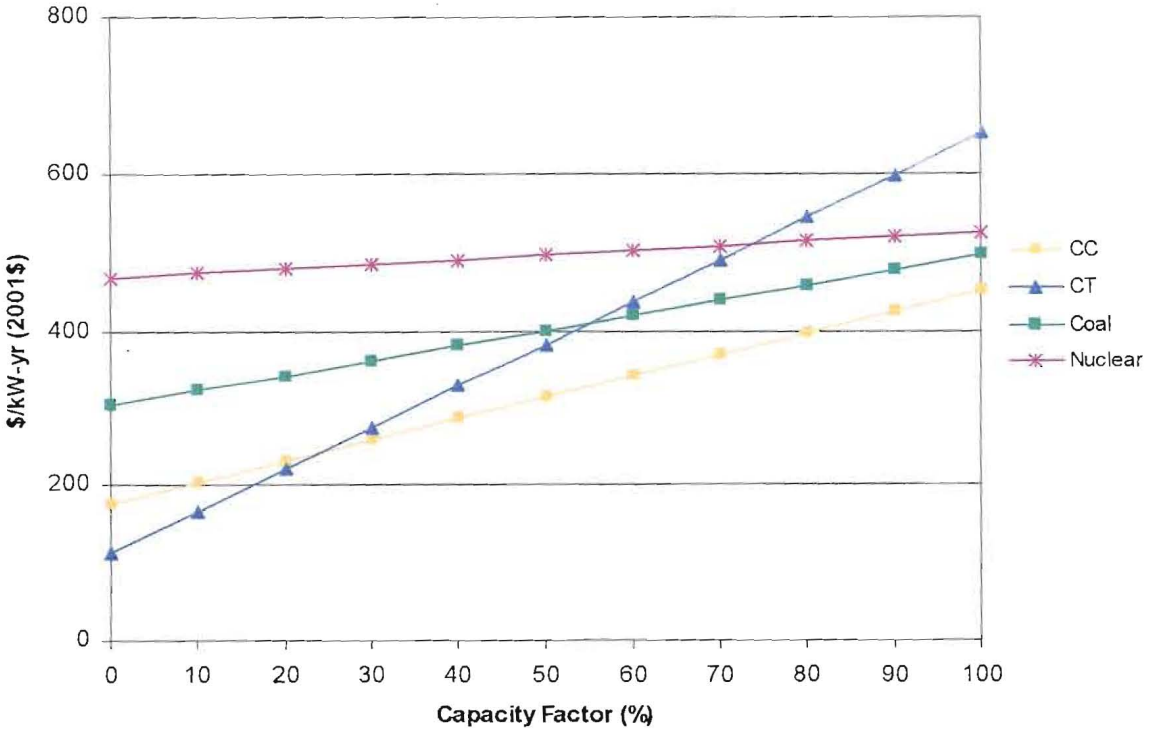
a. FPC's resource planning process demonstrated that Hines 3 is the most cost-effective alternative to meet FPC's need.

FPC selected Hines 3 as its next-planned generating alternative only after carefully evaluating its system needs and planning options through its ongoing resource planning process. (Tr. 48). Through this process, the Company assesses whether it has future capacity needs by examining its forecast for customer growth, energy consumption, and peak demand. (Comp. Ex. 1, JBC-1, pp. 15-36). Having identified a capacity need for the winter of 2005/2006 from this examination, FPC first evaluated a wide range of supply-side alternatives to meet that need. FPC's initial screening of supply-side alternatives narrowed the field to five technologies that were commercially and technically feasible, e.g., combined cycle, combustion turbine, pulverized coal,

fluidized bed combustion, and coal gasification combined cycle. (Comp. Ex. 1, JBC-1, pp. 29 – 34). These options were then evaluated in a cost model, PROVIEW, and ranked based on the costs. (Comp. Ex. 1, JBC-1, p. 34). The primary output of PROVIEW is a Cumulative Present Worth Revenue Requirements ("CPWRR") comparison of all the viable resource combinations that will satisfy Florida Power's reliability requirements. PROVIEW considers many tens or hundreds of thousands of combinations. (Tr. 33). This analysis resulted in a Base Generation Plan for FPC for both the 40-year study period and the ten-year planning horizon. (Id.). This process demonstrated that the Company needed Hines 3 in the winter 2005/2006. (Id.).

Moreover, as shown by the levelized busbar cost comparison explained by Mr. Crisp, a combined cycle unit when compared to other technologies is favored for both intermediate and baseload operation (i.e., units operating with capacity factors above approximately 20% annually). (Tr. 39; Comp. Ex. 1, JBC-1, pp. 34-35.)

Levelized Busbar Cost Curves



Based on its thorough evaluation of self-build alternatives, FPC selected Hines 3 as its "next planned" supply-side "generating alternative."

FPC then conducted sensitivity analyses to evaluate this selection using the PROVIEW production cost model that included high and low load forecasts; high and low fuel forecasts; and varying financial forecasts reflecting high and low economic case scenarios. (Comp. Ex. 1, JBC-1, pp. 37-38). This process confirmed that FPC's Base Expansion plan was robust and that there was no need to depart from the base assumptions used in the assessment. (Id. p. 38).

Once FPC evaluated its potential supply-side alternatives to meet its need, and before proceeding with its RFP, FPC conducted a careful screening of demand-side resources reasonably available to determine if its need might be mitigated in whole or in part through use of FPC's demand-side management ("DSM") resources. FPC's best demand-side alternatives from its DSM plan were analyzed with its best supply-side options in a production cost program that optimized the available demand-side and supply-side options to develop a plan that provided for the lowest revenue requirements while still providing reliable, efficient, service. (Comp. Ex. 1, JBC-1, pp. 28-29). As a result of this analysis, it was clear that FPC's capacity needs for the winter of 2005/2006 could not be mitigated through demand-side alternatives. (Id. at p. 29; Tr. 44).

As further pointed out by Mr. Crisp in response to questions by Staff counsel, DSM programs lose their cost-effectiveness if used excessively. (Tr. 83-84). Thus, the Company appropriately concluded that adding supply-side resources to meet its projected

need was the most cost-effective means to meet that need. (Tr. 81). The Company's determination remains undisputed in this proceeding.

Although DSM is an important resource that may be available to reduce load if needed, it cannot be used as often or as long as physical generation without eventually affecting customer participation levels, as was demonstrated by the customer attrition experience of 1998 and 1999. (Tr. 35). As the Company learned, when interruptions in service increase in frequency, customers are less willing to accept such service for lower rates. (Id.) For this reason, FPC is planning to rely more on additional physical reserves[2] to ensure a reliable power supply. (Tr. 35). Based on its projected load growth, the addition of Hines 3 will increase the Company's share of physical reserves to approximately one half of total reserves (which includes DSM) in the winter of 2005/2006, a level of physical reserves sufficient to maintain coverage of an unplanned outage of the fleet's largest unit. (Tr. 36).

Given all of these considerations, FPC's exhaustive Resource Planning process demonstrated that its Base Generation Plan, calling for the addition of Hines 3 in the winter of 2005/2006, is the most cost-effective resource plan available to FPC to meet its system needs.

b. FPC's RFP and bid evaluation process demonstrated that Hines 3 was the most cost-effective alternative available to meet FPC's need.

To identify opportunities to beat its self-build alternative, FPC issued an RFP under the Commission's Bid Rule. The Company's RFP was well crafted, clear, fair to

---

[2] FPC considers firm purchase power agreements as equivalent to physical reserves, and would have been satisfied to accept a firm purchase power agreement even given its concern about increasing physical reserves, had a more attractive proposal than Hines 3 been presented by a bidder. (Tr. 96).

all interested bidders, and designed to encourage their participation in the RFP process. (Tr. 106-112, 121-122, 133-134, 170-171, 184-185; Comp. Ex. 1, JBC-1, pp. 38-46). The unrefuted evidence demonstrates that FPC complied with all aspects of the Commission's Bid Rule, and that its bid evaluation process was thorough, fair, and appropriately based on standard industry analytical methods. (Comp. Ex. 1, JBC-1, pp. 47-74).

As the evidence demonstrates, Hines 3 was $92 million (2002 dollars) less expensive that the least cost alternative proposal. And Hines 3 was $187 million less expensive than the least-cost Greenfield proposal (another combined cycle plant). (Tr. 106). This is true without taking into account the potential impact of a power purchase agreement (sometimes described as "imputed debt") on FPC's cost of capital. (Tr. 166.) It is no surprise then that no bidder intervened in this proceeding to contend that it had offered a more cost-effective alternative than Hines 3.

Hines 3 offers a number of advantages over any of the third-party proposals advanced by the bidders. As explained by Mr. Crisp, FPC was able to negotiate a favorable equipment option on combustion turbines when it was first developing Hines 1. (Tr. 49) FPC prudently exercised that option and was able to designate those units for use at Hines 3 during the RFP process and thus improve the Company's capital cost estimate to $231 million dollars. (Tr. 228). Second, FPC is building Hines 3 at the Hines Energy Complex where it can take advantage of the existing infrastructure, shared facilities, and a shorter, less-expensive permitting process, reducing the costs of Hines 3. (Tr. 49; 214, 228, 302). Significantly, by operating Hines 3 in combination with Hines 1 and 2, FPC will be required to add only a handful of additional employees for Hines 3,

many fewer than would be required for a typical Greenfield project. (Tr. 49). Finally, FPC has good or better credit standing than independent power producers resulting in lower financing costs for the project. (Tr. 49).

The total projected cost for the Hines 3 unit is approximately $231 million (excluding AFUDC) in actual dollars. This cost was developed on the basis of replicating the design and layout of Hines 2, which is presently under contract and in the construction phase. (Tr. 228). As Mr. Murphy testified, FPC's Hines 3 cost estimates are based on specific construction and equipment cost estimates from vendors, the contracted price for the combustion turbines, the heat rate guarantees provided in connection with the construction of Hines 2 that FPC reasonably expects it can replicate in an EPC contract for Hines 3, and operating cost estimates based upon FPC's actual operational experience with Hines 1. (Tr. 228, 240, 256-257). Mr. Murphy further testified that current market conditions and indicators now show that FPC may be able to obtain an even more favorable EPC price for the construction of Hines 3 than when the $231 million dollar estimate was made. (Tr. 258).

Additionally, during the RFP process, FPC conducted several sensitivity analyses in comparing the cost of Hines 3 to the bids. (Tr. 145). The first analysis assumed higher fixed O&M costs for Hines 3—double what FPC actually expects to incur. This resulted in an increased cost of only $10 million dollars on a cumulative present value of revenue requirements basis (2002 dollars). This would reduce the advantage of Hines 3 over the next best alternative from $92 million to $83 million. (Tr. 145).

The second sensitivity analysis assumed that the direct construction costs for Hines 3 would be 10% greater than expected (approximately $23 million more).

(Tr. 146). This assumption increased the total construction costs of the unit by approximately $26 million and increased the cumulative present value of revenue requirements by almost $27 million (2002 dollars). (Id.). Still, Hines 3 was over $65 million more cost effective than the next most-attractive alternative. (Tr. 192, 193). Even combining the impact of these two sensitivities, Hines 3 would still be $56 million dollars more cost effective than next-lowest proposal (Id.).

At the hearing, Mr. Daniel J. Roeder, Project Leader for the RFP process, testified that a sensitivity analysis using a higher full load heat rate for Hines 3 of 7100/mmbtu/kwh, wholly unexpected by FPC, would result in only a $20 million increase on a cumulative present value basis (using PACE's own numbers), still showing Hines 3 to be $72 million less expensive than the most cost-effective alternative. (Tr. 193, 194). Thus, even combining this additional sensitivity with the ones originally performed by FPC, Hines 3 would still be the clear winner by $36 million dollars—without taking into account the potential impact of an "equity penalty."

(1) FPC's RFP and RFP process complied with the Bid Rule, 25-22.082 F.A.C., and was fair.

FPC initiated its RFP process by announcing its proposed solicitation using several methods, beginning with a press release on November 19, 2001. The press release was then published or referenced in articles by a number of news services, both in print and on line, including the *Southeast Power Report*, *Dow Jones Energy Services*, the *Tampa Tribune*, *Yahoo!Finance* and *Morningstar.com*. (Tr. 109-110). FPC also published public notices as required by the bid rule in newspapers of state and national circulation such as the *Lakeland Ledger*, *Tampa Tribune*, *St. Petersburg Times*, *Orlando Sentinel*, and *The Wall Street Journal* between November 20-22, 2001. (Id. at 110.) In

addition 55 individual parties that had previously expressed an interest in other RFPs in the state of Florida were sent an electronic copy of the public notices, via e-mail. (Id. at 110).

The RFP package itself was issued on November 26, 2001 and was available for downloading from the RFP web site created by FPC. (Tr. 110). By December 19, 2001, 60 copies of the RFP package had been downloaded. (Id.) The RFP was also filed with the Commission as required by the Bid Rule on December 20, 2001. (Id.)

The RFP document was divided into five sections. (Comp. Ex 1, JBC-1 pp. 39-40 and App. H). Section I identified the "the next planned generating alternative" and also provided a detailed schedule of the RFP process, including dates for the solicitation, evaluation, contract negotiations, and regulatory filings, and identified the official RFP contact person, namely Mr. Roeder, giving his name and address. Section II provided key definitions.

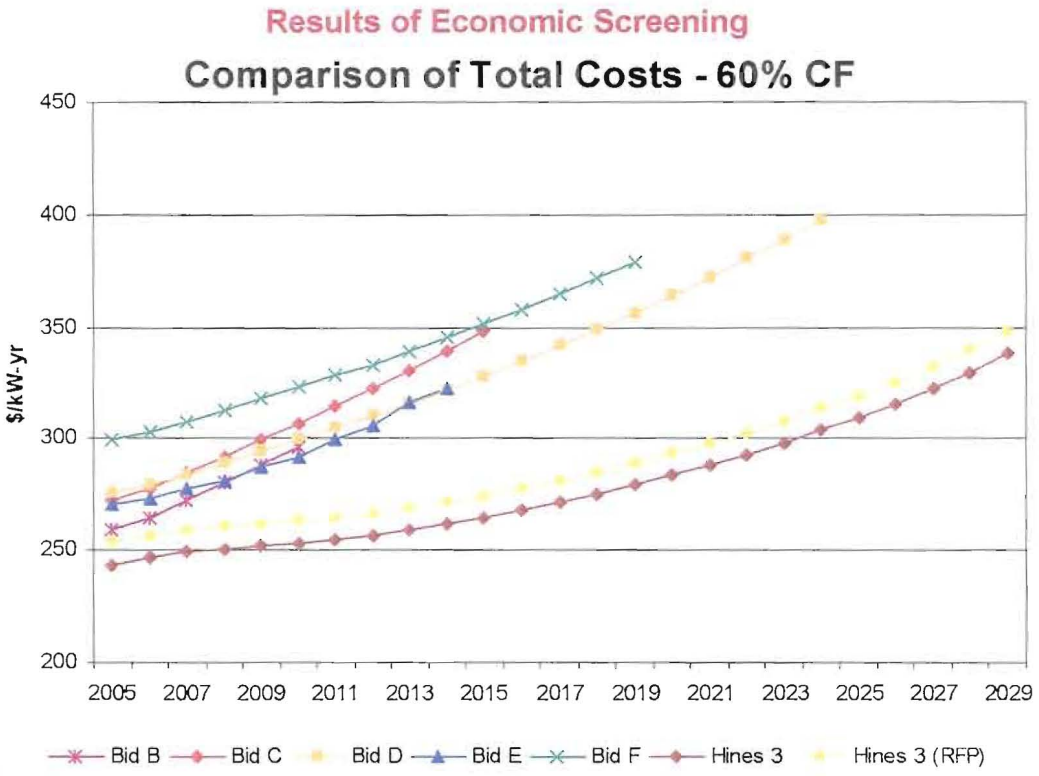
Section III provided instructions to the bidders for submitting proposals, including the submission date, proposal fees, in-service date, and term requirements, contract flexibility provisions, security requirements, permitting requirements, and other requirements. Section IV provided a detailed description of the FPC's multi-phase solicitation process, including the evaluation process. Each of the seven steps of the process to be used in evaluating generating proposals on the basis of price and non-price attributes was discussed. Section V provided a detailed description of Hines 3, including the then-current estimates of construction and operating costs and the financial assumptions and parameters associated with the unit. (Comp. Ex. 1, JBC-1, pp. 42-43) The criteria specifically listed in the bid rule were all included. (Id. at 43). Finally,

Attachment A to the RFP contained a set of proposed terms and conditions of a power purchase agreement that would be potentially negotiated with bidders. FPC invited bidders to comment on these terms and conditions as a part of their proposal. (Id.) As evidenced by the absence of filings by any bidder in this proceeding, not one single bidder complained about the RFP or claimed that FPC did not comply with the Bid Rule.

On December 10, 2001, FPC invited interested bidders to indicate their intent to bid by providing a Notice of Intent to FPC. FPC received seventeen Notices. (Tr. 111). Next, on December 18, the Company held a Bidder's Conference for the purpose of entertaining questions about the RFP. All of the bidder's questions were answered during the conference or were answered shortly thereafter in writing, with all questions and answers posted on the RFP web site. (Tr. 111). On February 12, 2002, the deadline for the submittal of bids in response to the RFP, the Company received seven bids. (Tr. 111). Five of the seven proposals were Greenfield proposals (new construction) and two were system proposals. (Tr. 112).

(2) The Bid evaluation was thorough and fair.

Over the next few months, the Company carefully evaluated these bids, initially eliminating only two bidders for failure to provide the necessary information to evaluate their bids. The Company then performed an initial economic screening analysis, comparing the five remaining proposals to each other in terms of $/kW-year based on the total prices proposed by the bidders and assumed capacity factors. (Tr. 116). The results of this initial economic screening may be seen in the following exhibit:



(Comp. Ex. 4, DJR-1).

Subsequently, the Company eliminated Bidder B based on its failure to demonstrate site control or to provide sufficient information for the Company to evaluate transmission questions. (Tr. 151). However, the Company continued its analysis of the remaining four bids, placing each of them on the short list. On April 19, 2002, FPC advised each of the Short-Listed bidders that it was being placed on the Short List. (Id.) FPC also advised the bidders at that time that the Company had revised its estimate for Hines 3 and provided these numbers to the Short-Listed bidders encouraging them to "sharpen their pencils" to beat the new estimates. (Id.) Only one bidder, Bidder D, responded with a new price proposal. (Id.)

FPC conducted a detailed evaluation of the bids and then compared the bids to its self-build option. (Tr. 152) The purpose of the detailed evaluation was to subject the proposals on the Short List to a more detailed economic and technical assessment and to compare them with FPC's self-build alternative, Hines 3, incorporating transmission cost impacts based on system impact studies. (Tr. 134). The detailed evaluation was performed using the most up-to-date information supplied by the bidders on the Short List. FPC asked bidders for additional information, as needed, concerning both the technical aspects of their bids and their pricing proposal. (Id.)

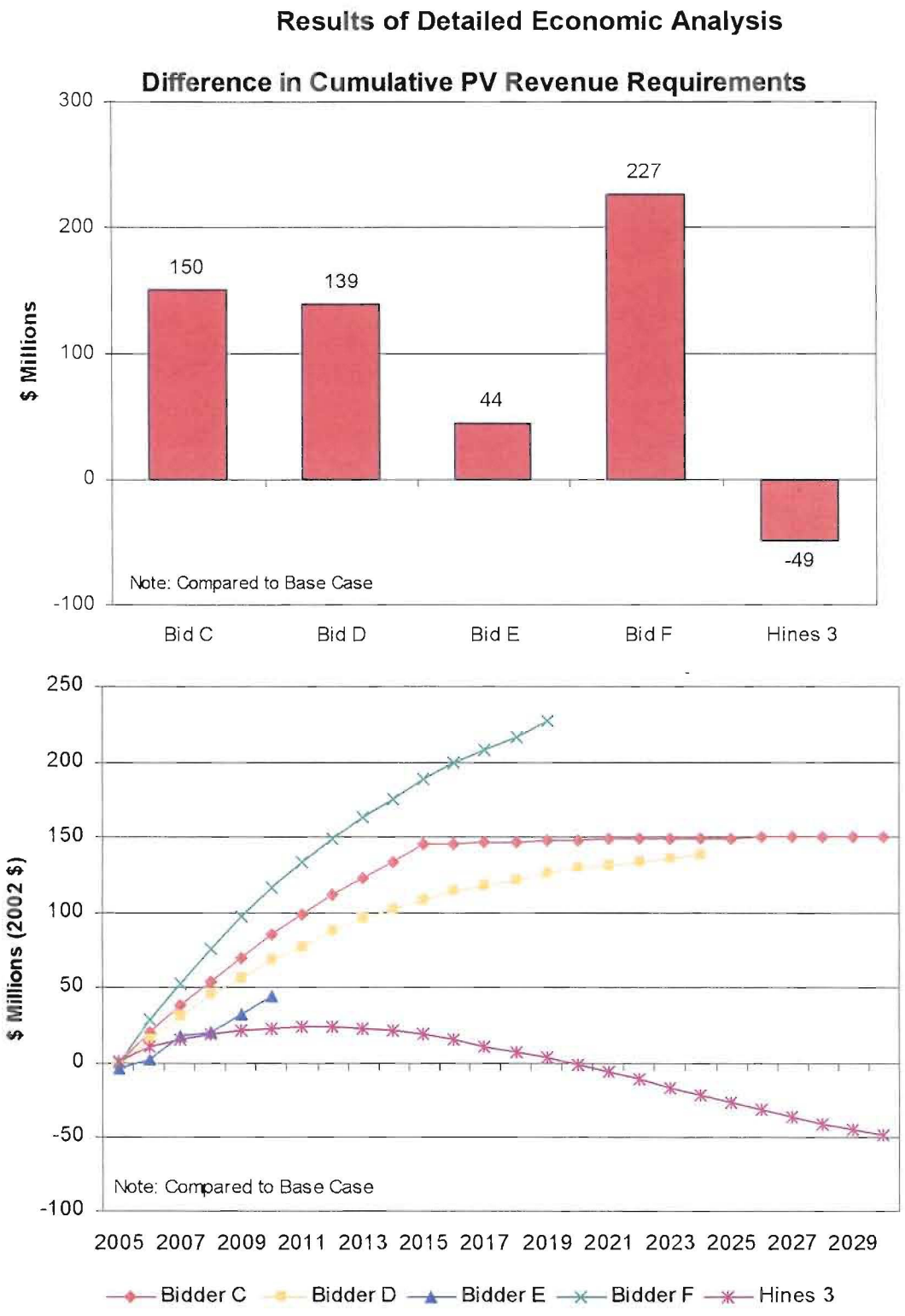
There were three main tasks involved in the detailed evaluation: finalizing the technical evaluation, evaluating the transmission impacts of the proposed plants, and conducting the detailed economic analysis, which included detailed production costing and financial analyses. (Tr. 135). In the end, the technical evaluation showed no "show-stoppers" and no Short-Listed bidder or Hines 3 was eliminated based upon the technical criteria, which included an evaluation of the permitability of each of the Short-Listed Greenfield plants and Hines 3. (Tr. 135-136). In the transmission analysis, each Greenfield plant was placed into FPC's system and studied for load flow, stability, and short-circuit impacts to FPC's transmission system. Only Bidder C's proposal required changes to FPC's transmission system at an estimated cost of $20 million dollars, and these costs were considered in the detailed economic evaluation. (Tr. 136-137).

Given the foregoing results, it was clear that the determining factor in the evaluation process was likely going to be economics. Thus, a detailed economic analysis was performed on all of the Short-Listed proposals and Hines 3. (Tr. 138). Using the PROSYM model, a detailed, chronological production-costing model, each of the Short-

Listed proposals and Hines 3 was modeled as a separate case. (Tr. 138-139). A Base Case was also modeled, using a generic combined cycle unit, so that each of the proposals and Hines 3 could be treated the same in the economic analysis. (Tr. 139). The evaluation also considered the fixed costs of the alternatives. (Tr. 141). In order to ensure that each bid was treated fairly, given the varying lengths of the proposals, these costs were captured through the use of an economic carrying charge, which allows each of the alternatives to be evaluated consistently and eliminated problems associated with "end effects." (Tr. 142).

The above methodology absolutely refutes any assertion by PACE that the use of "filler" units unfairly advantaged Hines 3 over the bids. To the contrary, FPC compared each of the bids and Hines 3 to the same generic base case—a true apples-to-apples comparison. And in any event, even taking "filler units" and "production cost modeling" out of the picture entirely, it is clear from the initial economic screening that Hines 3 was simply less expensive than the prices offered by the bidders. This is demonstrated by Comp. Ex. 4, DJR-6, shown above, which compares the direct costs of Hines 3 to that of the bidders. PACE's allegation about "filler" units falls victim to the fact that Hines 3 is plainly less expensive than the bids.

The results of the Company's detailed economic evaluation showed that Hines 3 was "hands down" the most cost-effective alternative and that all competing bids, as a matter of pure economics, were simply inferior to FPC's self-build option. As previously stated, in terms of cumulative present value of revenue requirements, Hines 3 was over $92 million (2002 dollars) less expensive than the least-cost third-party proposal (Bid E). Hines 3 was also more than $187 million (2002 dollars) less expensive than the least-cost Greenfield Proposal (Bid D), as reflected in the following chart:



(Tr. 142, Comp. Ex. 4, DJR-1)

PACE has argued that the heat rate used by FPC in the detailed economic evaluation of Hines 3 differed from the heat rate reported by the Company in its Ten-Year Site Plan and RFP. This is not correct. The 6900/mmbtu/kwh heat rate used for Hines 3 in the Company's evaluation was a full load heat rate, whereas the values in the RFP and Ten-Year Site Plan represented the appropriate values for Hines 3 at different operating levels. In the Ten-Year Site Plan, FPC showed a 7300/mmbtu/kwh average net operating heat rate for Hines 3. (Comp. Ex. 1, JBC-1, App. F). In the RFP, FPC showed a 7100/mmbtu/kwh 80% net operating factor heat rate for Hines 3. (Comp. Ex. 1, JBC-1, App. H). Each of these is accurate for the operating characteristic it describes, and no adjustment to FPC's economic analysis of Hines 3 is necessary. Indeed, as noted by Mr. Roeder, the detailed economic evaluation utilized a heat rate curve for Hines 3 based on the unit's operating characterizes under varying conditions. (Tr. 59-60, 185, 192-193).

As a final step, FPC performed two sensitivity analyses designed to advantage the third-party proposals economically to determine how Hines 3 might fare under pessimistic assumptions. (Tr. 143). As shown below, Hines 3 continued to emerge as the most cost-effective alternative.

In the first sensitivity analysis, FPC postulated a tolling arrangement for Bidder C where Bidder C's power plant would have the advantage of being treated as an FPC asset for the purposes of fuel management. (Tr. 143). Thus, Bidder C was assumed to have the same fuel price as Hines 3—which was lower than the fuel price quoted by Bidder C—and was further assumed to have the same amount of firm gas transportation reserved. The results of this analysis lowered the cost of Bidder C's proposal by $63 million. However, even with this assumed cost reduction, the cost of Hines 3 was still

lower than Bidder C's proposal by more than $135 million. (Tr. 143). This analysis was not performed for the other bidders because they quoted initial fuel prices that were lower than the fuel prices assumed for Hines 3; so assuming the same fuel prices as Hines 3 would have disadvantaged the other proposals. (Tr. 144).

FPC's second sensitivity analysis was performed in connection with Bidder E, who, unlike the Greenfield proposals who proposed a fuel price tied to an index, had proposed a pass-through of its system average fuel costs. After Bidder E was placed on the Short List, FPC asked the bidder questions regarding the assumptions used in the forecast of its system average fuel and purchase power prices. During this discussion, Bidder E requested to receive the natural gas price forecast FPC was going to use in its evaluation of the proposals, which the Company provided to Bidder E. (Tr. 144). Several days later, Bidder E provided FPC with a new forecast of its system average fuel and purchase power prices that was based on FPC's natural gas price forecast. The new prices were approximately 10% lower than the original prices. (Tr. 144-145). Under the new price assumptions, the value of Bidder E's proposal improved by approximately $2 million, but it was still $90 million more costly than Hines 3. (Tr. 145).

As described above (p. 21-22), FPC also performed sensitivities that assumed substantially higher construction and O&M costs for Hines 3. In each case, Hines 3 still beat all bids by a clear margin. Indeed, in order to eliminate the $92 million dollar advantage that Hines 3 had over the next-best alternative, the direct construction costs of Hines 3 would have to increase by $79 million dollars, or, assuming also that the fixed O&M costs for Hines 3 doubled, the direct construction costs would have to increase by $71 million. (Tr. 145). In each of these cases, Hines 3 would have the same cost-

effectiveness as the next-best alternative (a system proposal) without including imputed debt in the analysis, and would still clearly beat each Greenfield proposal offered by PACE's members. (Tr. 142, 146).

PACE attempted to establish during the hearing that FPC applied criteria to evaluate the bidders' proposals not identified in the Company's RFP, including competitive considerations. This contention is baseless. PACE has pitched this argument on fragments from worksheets taken out of context. The actual evidence confirms that no bidder was eliminated or disadvantaged in the selection process by any criterion not identified in the RFP. The RFP was extensive, thorough, detailed, included all information required by the Bid Rule and was fairly applied during the selection process. The undisputed evidence demonstrates conclusively that what determined the outcome was the price, not the process.

In the end, the detailed economic analysis and the sensitivity analyses demonstrated in no uncertain terms that FPC's clear choice was to select its significantly less-expensive self-build alternative in order to bring to its customers the most cost-effective supply-side alternative available.

(3) FPC's cost estimate for Hines 3 was appropriate and accurate.

FPC's cost-estimate for Hines 3 is appropriate and reasonable. It is based on specific construction and equipment costs from vendors, the contracted price for the combustion turbines, the heat rate guarantees for Hines 2 (increased to allow for degradation) that FPC fully expects to be able to replicate in an EPC contract for Hines 3, and its experience with actual operating costs at Hines 1. (Tr. 228, 239-245, 257). See also the discussion at p. 14-15 above. Moreover, FPC is well aware that the Commission

will keep in mind the cost estimates provided in this proceeding when FPC seeks to place Hines 3 into its rate base.

PACE claims nonetheless that FPC has underestimated the cost of Hines 3 because: (1) FPC failed to evaluate the potential costs of the underfrequency issue; (2) FPC used an overly aggressive heat rate estimate when evaluating the costs of Hines 3; and (3) FPC failed to consider the potential for increased costs to obtain cooling water for Hines 3. The evidence adduced at hearing demonstrates that PACE is incorrect in every instance.

First, with regard to the underfrequency issue, PACE's hypothesis is incorrect for a number of reasons. (1) FPC can reset the relays on the Westinghouse CTs' to meet the FRCC requirements at no cost. (2) Siemens Westinghouse, not FPC, has committed its own resources and promised to correct the technical issues with regard to the remote prospect of damage to the CTs (which does not threaten the reliability of the grid) from underfrequency operation of the turbines. (3) Again, given that the contingency at issue has never occurred on FPC's system and has not occurred in the state for 25 years, PACE's allegation that FPC has failed to consider a significant potential cost associated with this issue is plainly meritless. (See detailed discussion at p.11-13 above).

Second, PACE attempted at the hearing to suggest that the heat rate used for Hines 3 was too aggressive and could not be achieved, arguing that had Hines 3 been modeled with a higher heat rate, the Company's cost estimate would be higher. As demonstrated by the unrefuted evidence, however, PACE's assertions are wrong. As explained by Mr. Murphy, the 6903 full load heat rate used for modeling Hines 3 was in line with heat rate guarantees FPC obtained for Hines 2. FPC fully expected to replicate

the Hines 2 heat rates for Hines 3. (Tr. 243). Moreover, as noted by Mr. Roeder, the heat rate used for Hines 3 cannot be compared meaningfully to the heat rates contained in the bidder's proposals. This is because the bidders specify heat rates as a contract mechanism (not expected operational characteristic) for the purpose of calculating and ensuring full recovery or over-recovery of fuel costs to the benefit of their shareholders. (Tr. 188). Thus, the heat rates contained in the bids do not offer an appropriate yardstick to measure the estimated operating heat rate for Hines 3, and PACE has offered no evidence to the contrary.

Mr. Roeder also testified that, even if a 7100 full load heat rate had been used for Hines 3 (which would not be accurate or appropriate), the costs of Hines 3 would increase by only $20 million (using PACE's numbers), which would not have changed the outcome of the RFP process. Hines 3 would still be $72 million less expensive than the least-cost alternative, and $167 million less expensive that the least-cost proposal offered by any PACE member. Simply put, PACE's allegations about FPC's allegedly over-aggressive heat rate are belied by the facts, and even if assumed to be true, fail to establish that any bidder, let alone any of PACE's members, offered a bid actually superior to Hines 3.

Finally, PACE contended that preliminary filings by the South West Florida Water Management District ("SWFMD") in the Hines 3 Supplemental Site Application proceeding and in an unrelated docket should give the Commission cause for concern about FPC's ability to obtain cooling water for Hines 3 and the costs of such water. The Original Site Certification for the Hines Energy Complex, however, contained an unrestricted allotment of ground water for use in cooling Hines 3 totaling up to 5 million

gallons of water a day. (Tr. 308, 314, 325) Although FPC is required to investigate alternative sources of water as a condition of moving forward to use the permitted groundwater, FPC has done so, and neither FPC, SWFMD, nor PACE for that matter, has been able to locate any alternative sources of water for use as cooling water for Hines 3. (Tr. 326).

Moreover, as explained by Mr. John J. Hunter, a lead environmental specialist for FPC, even if an alternative source of water had been identified, there is no reason to believe at this point that FPC would bear the additional costs of utilizing the alternative water source as there is a potential for SWFMD co-funding and an economic feasibility condition associated with requiring FPC to use an alternative other than the already-permitted ground water. (Tr. 327).[3]

In the end, Hines 3 has emerged as the most cost-effective alternative to meet the future needs of FPC's customers by a wide margin. FPC is pleased to be able to bring the benefit of this cost-effective unit to its customers.

4. Hines 3 Will Have Adequate Fuel Supply and Fuel Transportation.

As Ms. Pamela R. Murphy, the Director of Gas & Oil Trading for both FPC and CP&L testified, natural gas is the primary fuel planned for Hines 3 and is a readily available and economical fuel source for the unit. (Tr. 271).[4] Indeed, the natural gas exploration and production industry, in this country and in Canada, is engaged in

---

[3] As noted, PACE has attempted to inject in the need proceeding a totally unrelated objection filed by SWFMD in a site modification proceeding relating to Hines 1 and 2, not Hines 3. It is absolutely irrelevant to this need case, the cost of Hines 3, or FPC's ability to obtain supplemental site certification for Hines 3. (Tr. 309, 311, 328-329, 335).

[4] Ms. Murphy has 27 years of experience in the gas supply industry, and following the Company's merger with CP&L is now procuring natural gas, residual fuel oil and distillate oil for both CP&L and FPC. (Tr. 268-269).

aggressive efforts to maintain and expand the North American natural gas reserve base, spurred both by greater demand and higher natural gas prices. (Tr. 275). Florida, in particular, is well situated close to significant existing and potential gas reserves in Louisiana, Mississippi, and Alabama. (Id.) In addition, there is a substantial amount of exploration and development activity going forward in the deep waters of the Gulf of Mexico, where large new gas reserves have been and are expected to be discovered and developed. (Id.) These supply sources have access to the two pipelines (FGT and Gulfstream) that are already connected to the Hines Energy Complex. (Id.)

Importantly, natural gas will not only be available but it will be a competitively-priced fuel source for Hines 3 compared to other types of fuel and generation technologies, based on the forecast of natural gas price trends compared to oil and coal price trends. (Tr. 271).

Hines 3 will require approximately 55,000 MMbtu's of gas per day during average operation and 97,000 MMbtu's during peak operation. With the ability to obtain gas from two interstate gas pipelines, the expected need for backup fuel is minimal; nevertheless, Hines 3 will be designed to operate alternatively on distillate oil, which is also a readily available fuel source. (Tr. 275). Hines 3 will share an on-site oil storage tank with Hines 1 and 2 that would allow each of the three units to operate for approximately two days by burning only oil with no re-supply to the tank. (Tr. 235-236, 286).

Although FPC has not entered into contacts yet for a firm gas supply for Hines 3, the Company has relationships with a number of gas producers and marketers and is confident that it will be able to negotiate contracts at competitive prices closer to the in-

service date. (Tr. 279). It would not be cost effective to execute those contracts now since most suppliers would require significant up-front and standby payments to reserve supply this far in advance. (Id.). Instead, FPC plans to enter into gas supply arrangements approximately six to eight months before the in-service date, and in all likelihood, will negotiate a portfolio of contracts with varying terms to obtain the lowest fuel costs while still ensuring reliable availability. (Tr. 279-280).

Likewise, with two natural gas pipelines already connected to the Hines Energy Complex, FPC is confident that it will be able to obtain transportation service to Hines 3 on the FGT and/or Gulfstream pipelines. (Tr. 280). FPC is currently in discussions with both companies regarding its requirements for firm gas transportation capacity for Hines 3 and expects to negotiate rates for gas transportation service that are no higher than the rates current charged by FGT under its FERC natural gas tariff. (Id.).

Based on the foregoing, it is clear that FPC will be able to ensure an adequate fuel supply and transportation to Hines 3 in plenty of time to meet the plant's scheduled in-service date.

5. Possible Mitigation Through Conservation.

As explained above, FPC's Resource Planning process considered in detail conservation measures that the Company might reasonably take to avoid the need for new generation. However, as set forth in detail above (Tr. 47, 81-84, Comp. Ex. 1, JBC-1, p. 17-30), avoiding the need for Hines 3 through DSM is simply not possible or rational given the counterveiling economics and FPC's need for additional supply-side resources to balance out its mix of total reserves. (Tr. 47-48, 58, 81-84)

C. Conclusion.

For all the foregoing reasons, and based on the undisputed evidence presented at the hearing, the Commission should grant FPC's Petition for a Determination of Need for Hines Power Block 3.

Respectfully submitted,

JAMES A. MCGEE
Associate General Counsel
PROGRESS ENERGY SERVICE COMPANY, LLC
100 Central Avenue
St. Petersburg, Florida 33733
Telephone: (727) 820-5184
Facsimile: (727) 820-5519

GARY L. SASSO
Florida Bar No. 622575
JILL H. BOWMAN
Florida Bar No. 057304
W. DOUGLAS HALL
Florida Bar No. 347906
CARLTON FIELDS, P.A.
Post Office Box 2861
St. Petersburg, FL 33731
Telephone: (727) 821-7000
Telecopier: (727) 822-3768

CERTIFICATE OF SERVICE

I HEREBY CERTIFY THAT a true and correct copy of the foregoing has been served by U.S. Mail to counsel of record as listed below on this 27th day of December 2002.

Attorney

COUNSEL OF RECORD:

Lawrence Harris and
Marlene Stern
Legal Division
Florida Public Service Commission
Gunter Building
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Paul Lewis, Jr.
Florida Power Corporation
106 East College Avenue, Suite 800
Tallahassee, FL 32301-7740
Telephone: 850-222-8738
Facsimile: 850-222-9768

Jon Moyle, Jr.
Moyle Law Firm
The Perkins House
118 North Gadsden Street
Tallahassee, FL 32301
Telephone: (850) 681-3828
Facsimile: (850) 681-8788

James A. McGee
Associate General Counsel
Progress Energy Service Co., LLP
P. O. Box 14042
St. Petersburg, FL 33733
Telephone: (727) 820-5184
Facsimile: 727-820-5519