

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

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

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CONFIDENTIAL

SUPPLEMENTAL TESTIMONY
OF ALAN S. TAYLOR

ON BEHALF OF
FLORIDA POWER CORPORATION

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1 The Eagle proposal was for between 500 MW and 809 MW from an integrated
2 gasification combined-cycle project fueled by petroleum coke. The capacity was
3 proposed to be available beginning March 31, 2004 and extending for 25 years.

4
5 **Q. What steps were taken subsequent to receipt of the proposals to ensure fair**
6 **consideration of the bids?**

7 A. Once FPC had reviewed the bids, FPC staff held one-on-one meetings with the
8 bidders in order to fully understand the proposals and to offer the bidders
9 opportunities to clarify and/or revise the proposals and certain important particulars
10 to better address FPC's needs and the requirements of the RFP. At these meetings
11 and in earlier written communications, Panda was made aware that there were no
12 other proposals with which the Panda project could be combined to provide FPC
13 with the 530 MW specified in the RFP. As a result, through subsequent
14 communications, Panda offered a revised proposal of 530 MW.

15
16 **Q. Please describe the methodology by which FPC evaluated the submitted**
17 **proposals.**

18 A. As described in my public direct testimony, FPC utilized New Energy Associates's
19 PROVIEW resource optimization model to initially evaluate each of the proposals
20 and their variants. The Eagle project was evaluated at both the desired 530 MW and
21 also at the revised maximum of 750 MW in order to determine whether accepting
22 the offer of more capacity would lower overall system costs to FPC. The Panda
23 project was evaluated at both the 250 MW level (265 MW, with supplemental call)

1 initially proposed and at the 530 MW level offered in the subsequent revision; each
2 of these alternative capacity scenarios was considered under the 2-, 3-, 4- and 5-year
3 options proposed by the bidder.

4
5 FPC utilized the PROVIEW results to narrow the field of contending proposals or
6 variants of proposals. In order to provide added validity to the analysis, a more
7 detailed utility-system simulation model, known as PROSYM, was then utilized to
8 evaluate the remaining proposal variants. The PROSYM runs determined total
9 system costs under four unique scenarios defined by which proposed resource was
10 included in the mix:

- 11
12 (1) the 530 MW Hines 2 unit;
13 (2) the 530 MW, 2-year option for the Panda proposal;
14 (3) the 530 MW Eagle option; and
15 (4) the 750 MW Eagle option.

16
17 In short, the Hines 2 unit and both Eagle options were carried over for evaluation in
18 the PROSYM modeling stage. Only the 2-year Panda option was retained for
19 further modeling analysis since this was shown to be the least-cost alternative
20 among the Panda variations in the PROVIEW analysis.

21

1 In all four scenarios, each proposal was evaluated in the best light in that the optimal
2 long-term generation expansion plan that was developed in the PROVIEW
3 evaluation was incorporated into the PROSYM runs.

4 These results were then incorporated into a proforma spreadsheet analysis that
5 determined the anticipated total annual revenue requirements for each resource
6 scenario for each year through 2028.

7
8 **Q. What were the results of the modeling and proforma analysis?**

9 A. The analysis showed that under the base case Hines 2 was the lowest-cost alternative
10 from 2003, the first year the units would come on line, continuously through to the
11 end of the planning period in 2028. Relative to Hines 2, the Panda proposal was
12 more expensive in each of its two years; the present value of this option over the
13 study period was about \$66 million greater than Hines 2. The two Eagle options
14 were more expensive still, with present value costs of approximately \$302 million
15 and \$499 million above Hines 2.

16
17 As discussed in my public direct testimony, FPC conducted three sensitivity
18 analyses on each of the four resource scenarios. These sensitivities included a high-
19 fuel case, a low-fuel case, and a case referred to as “Gulfstream” that represented a
20 scenario in which the proposed Gulfstream gas pipeline was developed. Results
21 from the sensitivity analyses were similar to those of the base case analysis, with
22 Hines 2 clearly the least-cost option. Relative to the base case, the difference in the
23 present value of total costs between the Panda proposal and Hines 2 increased

1 slightly in all sensitivity cases. The Eagle proposals were more expensive than
2 Hines 2 in all of the sensitivity cases. In only one of the sensitivities — the high-fuel
3 sensitivity — was the cost differential between the Eagle proposals and Hines 2 less
4 than the base case cost differential, but even the least expensive of the two options
5 remained more than \$234 million more expensive than Hines 2 in present value
6 terms.

7

8 **Q. What do you conclude from this analysis?**

9 A. I conclude that the Hines 2 resource represents the least-cost resource for FPC's
10 ratepayers under a reasonable variety of scenarios.

11

12 **Q. Does this complete your confidential supplemental testimony?**

13 A. Yes, it does.