

# BEGGS & LANE

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May 17, 1999

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Docket No. 990325-EI

Dear Ms. Bayo:

Enclosed for official filing in Docket No. 990325-EI are the following revised pages to the Need Study document attached to the petition in this docket dated March 15, 1999; the prefiled Direct Testimony of Robert G. Moore dated April 5, 1999; and the prefiled Direct Testimony of William F. Pope dated April 5, 1999:

Document	Revised Page
a. Need Study	Page 74
b. Testimony of R. G. Moore	Page 6
c. Testimony of W. F. Pope	Page 12

An original and fifteen copies of this letter and the revised pages have been enclosed for official filing. An extra copy of this letter has also been enclosed. Please acknowledge receipt of this filing by marking the extra copy of this letter with the date and time received by your office and returning same to me at your earliest convenience. If there are any questions concerning this filing, please contact me.

RECEIVED & FILED

FPSC BUREAU OF RECORDS

Very truly yours,

Jeffrey A. Stone  
For the Firm

DOCUMENT NUMBER-DATE

~~990325-EI~~ MAY 17 99

FPSC-RECORDS/REPORTING

JAS/js

Enclosures

AFA 3  
APP  
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Blanca S. Bayo, Director

May 17, 1999

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cc: Grace Jaye, Esquire  
FPSC, Division of Legal Services

Gail Kamaras, Esquire  
LEAF

R. A. Badders, Esquire  
R. D. Melson, Esquire  
W. F. Pope  
S. D. Ritenour

Smith Unit 3 will be located approximately 1,000 feet north of the existing Smith Plant substation. The unit's output will reach the Company's transmission grid by means of less than 1,000 feet of 230 KV bus. The existing transmission system out of Smith Plant is sufficient to handle the unit's output under normal peak operating conditions.

Smith Unit 3 will have an average annual output of 521 megawatts at an efficiency of 6,741 Btu/KWH. The unit will have the capability for power augmentation by steam injection to generate up to 540 megawatts of peaking generation at a reduced efficiency of 7,139 Btu/KWH. The costs for the necessary equipment associated with the power augmentation operation are included in the estimate below.

The following is a listing of some of the specific unit characteristics:

Forced outage rate	3.4%
Scheduled maintenance outage	2 weeks/year (Ave.)
Equivalent availability	92%
Expected average capacity factor	62%
Fuel consumption (full load)	3,900 MMBtu/hour
Annual fixed O & M (98\$)	\$2.84/KW-yr.
Variable O & M (98\$)	\$1.89/mWh

## 9.2 PROJECTED UNIT CONSTRUCTION COSTS

The following is a breakdown of estimated installed costs for Smith Unit 3, excluding any costs associated with the

1 transmission system out of Smith Plant is sufficient  
2 to handle the unit's output under normal peak  
3 operating conditions.

4 Smith Unit 3 will have an average annual output  
5 of 521 megawatts at an efficiency of 6,741 Btu/KWH.  
6 The unit will have the capability for power  
7 augmentation by steam injection to generate up to 540  
8 megawatts of peaking generation at a reduced  
9 efficiency of 7,139 Btu/KWH. Schedule 1 contains the  
10 operating characteristics of Smith Unit 3.

11 Q. What is the projected installed cost of Smith Unit 3?

12 A. The estimated installed costs for Smith Unit 3,  
13 excluding AFUDC and any costs associated with the  
14 construction of the natural gas pipeline is  
15 \$187,252,000. This estimate is based on a combination  
16 of actual vendor quotes and refined engineering cost  
17 analyses and includes the costs necessary to comply  
18 with all applicable environmental regulations. With  
19 respect to most of the components that comprise the  
20 project cost, this estimate can be considered  
21 relatively firm ( $\pm 10\%$ ). Schedule 2 contains a  
22 breakdown of the cost estimate.

23  
24 Q. Would you briefly explain the environmental  
25 considerations?

1 reaching the final results of this evaluation. The  
2 combined cycle cost figures that were used in this  
3 process were considered preliminary engineering cost  
4 figures.

5 Q. What were the results of the self-build analysis?

6 A. Considering all of the cost factors, including  
7 construction costs, fuel supply costs, transmission  
8 impacts, and system energy costs and savings, the  
9 self-build analysis revealed that a 500 MW class CC  
10 unit at the Company's existing Smith Plant was the  
11 best self-build alternative. Schedule 1 shows the  
12 results of the self-build analysis. These results are  
13 based on a common megawatt block size to keep all  
14 alternatives on equal footing during the analysis.

15

16 Q. Are there any transmission line additions required in  
17 connection with Smith Unit 3?

18 A. No. The output of Smith Unit 3 can be integrated into  
19 the Northwest Florida grid with no additional  
20 transmission lines. However, some upgrades to  
21 existing lines are needed and have been included in  
22 the cost-effectiveness evaluation of Smith Unit 3.

23 Q. How does the addition of a 500 MW class combined cycle  
24 unit affect Gulf's resource needs and reserves for  
25 2002 and beyond?