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April 2, 1999

Ms. Blanca S. Bayo, Director Division of Records and Reporting Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee FL 32399-0870

Dear Ms. Bayo:

ACK

Enclosed for official filing in Docket No. 990325-El on the behalf of Gulf Power Company are an original and fifteen copies of the following:

- 1. Prepared direct testimony of Maria Jeffers Burke. 0.4352-99
- 2. Prepared direct testimony of M. W. Howell. 04353-99
- 3. Prepared direct testimony of Robert G. Moore. 04354 ~ 99
- 4. Prepared direct testimony of Margaret D. Neyman and Michael J. Marler. 04355-99
- 5. Prepared direct testimony of William F. Pope. 04356-99

AFA 2 Sincerely, APP usan D. Ritenour CAF CMU Susan D. Ritenour Assistant Secretary and Assistant Treasurer CTR EAG) lw LEG LIN Enclosures OPC Beggs & Lane cc: RCH Jeffrey A. Stone, Esquire SEC Hopping Green Sams & Smith Richard D. Melson WAS . OTH _

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Gulf Power Company to determine need for proposed electrical power plant in Bay County

Docket No. 990325-EI

Certificate of Service

this <u>2nd</u> day of April 1999 by U.S. Mail or hand delivery to the following:

Grace A. Jaye, Esquire Staff Counsel FL Public Service Commission 2540 Shumard Oak Boulevard Tallahassee FL 32399-0863

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ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990325-EI

PETITION FOR NEED DETERMINATION

PREPARED DIRECT TESTIMONY

OF

MARIA JEFFERS BURKE

APRIL 5, 1999



DOCUMENT NUMBER-DATE U-4-352 APR-58 TROC-PTCORDS/REPORTING

1		GULF POWER COMPANY
2		Before the Florida Public Service Commission Direct Testimony of
3		Maria Jeffers Burke Docket No. 990325-EI
4		Date Filed: April 5, 1999
5		
6	Q.	Please state your name, business address and
7		occupation.
8	Α.	My name is Maria Jeffers Burke and my address is
9		Southern Company Services, 600 North 18th Street,
10		Birmingham, Alabama 35202. I am Project Manager in
11		the Generation Planning and Development Department of
12		Southern Company Services (SCS). I am currently
13		responsible for supply side evaluations.
14		
15	Q.	Please describe your educational background and
16		experience.
17	Α.	I graduated from Auburn University in August 1986 with
18		a Bachelor of Science degree in Chemical Engineering,
19		and I am currently completing graduate work toward a
20		Masters in Business Administration from Samford
21		University. In 1986, I began my career with the
22		Southern Company at a research facility in Wilsonville,
23		Alabama as a process engineer, and then as the
24		environmental engineer. I continued my environmental
25	-	permitting work with Southern Electric International in

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1990, helping to develop independent power projects 1 both domestically and internationally. I joined the 2 System Planning Department of SCS in November 1992 and 3 spent the next six years in various engineering and 4 supervisory positions. I have been involved in bid 5 evaluation since December 1996. 6 7 Have you prepared an exhibit that contains information 8 Q. to which you will refer in your testimony? 9 Yes. I have an exhibit consisting of 2 schedules to 10 Α. which I will refer. This exhibit was prepared under my 11 supervision and direction. I am also sponsoring 12 Section 8 and Appendix E of the Need Study filed in 13 this docket. 14 Counsel: We ask that Ms. Burke's Schedules 15 1 and 2 be marked for 16 identification as Exhibit _____ 17 (MJB-1). 18 19 Ms. Burke, what is the purpose of your testimony in Ο. 20 · this proceeding? 21 The purpose of my testimony is to describe the process 22 Α. employed by SCS in issuing the Gulf Power Request for 23 Proposals (RFP), in receiving responses, in evaluating 24 the offers and in comparing those offers to self-build 25

1 options.

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0. Please describe your role as it relates to

solicitations for capacity resources made on behalf of
the Southern companies.

In my current position, I am responsible for the Α. 6 evaluation of both short-term and long-term supply side 7 offers for the Southern operating companies. This 8 analysis includes selecting an appropriate production 9 cost modeling tool, verifying the assumptions used in 10 the analysis, preparing the final rankings, and 11 checking all numbers used in the evaluation. However, 12 my responsibilities usually begin earlier in the 13 process, understanding the appropriate regulatory 14 environment and drafting the RFP document for internal 15 review. 16

17

What solicitations have you been involved in prior to 18 Ο. the one performed on behalf of Gulf Power Company 19 seeking alternatives for their Smith Unit 3? 20 Since assuming responsibility for supply-side 21 Α. evaluations in December 1996, I have been involved in 22 two other solicitations: a Southern system solicitation 23 issued in March 1997 for short-term needs, and an 24 informal market test for Alabama Power. As a result of 25

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these solicitations, Southern became concerned that large amounts of relatively inexpensive purchased power were not going to be available much longer, and that the market would soon begin to extract a premium for capacity.

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What role did you play in the Gulf Power solicitation? 7 Ο. For the Gulf Power solicitation, I was directly Α. 8 involved in the early stages of the solicitation, 9 helping Gulf Power Company draft and issue the RFP 10 document. After the proposals were received from those 11 that responded to the RFP, I was responsible for 12 distributing copies of the proposals within the 13 evaluation team, conducting the generation cost 14 analysis of the proposals, and completing a relative 15 ranking for the proposals. I was also responsible for 16 the comparison of Gulf Power's self-build alternative 17 to the proposals. 18

19

20 Q. How was the RFP distributed?

A. As a normal course of business, SCS maintains a mailing
list of developers who are active in the Southeastern
United States. This list was updated for Gulf Power
Company's RFP and used by SCS to issue the RFP on
behalf of Gulf Power Company. The original

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distribution of the RFP on August 21, 1998 included 1 2 approximately 100 potential respondents. Additionally, Gulf Power Company published a 3 notice in appropriate local and statewide newspapers 4 and at least one national trade journal. Gulf Power's 5 objective was to attract any interested developers who 6 may not have been on Southern's original distribution 7 8 list. 9 10 Q. How many proposals were received? On October 16,1998, SCS received, on behalf of Gulf 11 Α. Power, four offers from three separate respondents. 12 13 The proposals were of various terms and MW sizes, but all offers were in the form of new generating 14 facilities: 15 ♦ A combined cycle unit in Hardee County, FL 16 • A combustion turbine facility in Holmes County, FL 17 • A combined cycle unit in Holmes County, FL 18 • A family of cogeneration facilities in Mobile, AL and 19 20 in Santa Rosa County, FL 21 22 Ο. What would you regard as your overall objective in performing the analysis of the alternatives proposed as 23 24 they are compared to Gulf Power Company's self-build option? 25

It is my responsibility to ensure that Gulf Power's I Α. customers get to take full advantage of the most cost-2 effective supply-side alternative available. One of 3 our objectives on the bid evaluation team is to ensure 4 that all respondents are treated consistently and 5 fairly. To accomplish that objective, SCS used only 6 the specific information directly provided by the 7 respondents in evaluating their proposals. In cases 8 where information was incomplete, an estimate favorable 9 to the respondent was made in the initial stage of the 10 evaluation process until the respondent was able to 11 12 clarify the specifics of the offer.

13

14 Q. What steps are taken with regard to the security and15 confidentiality of the proposals?

A. For the Gulf Power RFP, I distributed copies of all
proposals received ONLY to bid evaluation team members.
Distributed copies were numbered, and team members were
requested to make no additional copies. All team
members were required to keep proposals secure, or
return them to me at day's end.

22

23 Q. Please describe how the alternative offers were24 initially economically screened?

25 A. After the four proposals passed the responsiveness

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screening, which verifies that all mandatory components 1 of the offers were included with the proposal, then the 2 economic portion of the analysis began. The initial 3 screening of the offers was a "generation only" 4 evaluation. All offers were analyzed using PROVIEW®, a 5 production cost and optimization model. Specifically, 6 a PROVIEW[®] case was created for each proposal and 7 8 compared to a base case without that generation facility. The difference between these production cost 9 simulations was considered the "energy savings" for 10 that offer. Fixed capital and O&M costs for the 11 alternative were also totaled and the net cost was 12 present valued across a twenty-year horizon. 13 These 14 initial screening results are shown in Schedule MJB-1.

15

16 Q. Prior to the completion of the initial screening of the 17 various alternatives to Smith Unit 3, did you and the 18 other SCS employees working on the evaluations have any 19 questions about the proposals?

A. Yes, the initial screening of the proposals is usually
the most difficult because information is not shared
uniformly. In some cases, assumptions had to be made
about an offer to effectively analyze the proposal for
the initial screening. SCS-Generation Planning and
Development and SCS-Transmission Planning reviewed the

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Witness: M. J. Burke

offers during the initial screening and identified the
 additional information they would need to conduct their
 detailed analysis.

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5 Q. The Gulf RFP made reference to transmission impacts and 6 you mention above that SCS-Transmission Planning 7 reviewed the offers during the initial screening. At 8 what point did any transmission system impacts become a 9 factor in the RFP evaluation process?

Although SCS-Transmission Planning reviewed the offers Α. 10 during the initial screening, it was not until the 11 detailed evaluation phase that the transmission system 12 impacts were incorporated into the process. For the 13 Gulf Power RFP, a relative transmission evaluation was 14 conducted for all of the proposals and any necessary 15 transmission improvement costs were identified, and 16 ultimately include in the economic analysis. It was 17 necessary for Transmission Planning to initiate their 18 review of the offers during the early part of the 19 analyses to adequately assess any system impacts 20 associated with the offers. The initial screening was 21 a "generation only" analysis based on the information 22 strictly provided by the respondents in relation to the 23 RFP issued on Gulf's behalf and, therefore, any 24 transmission impacts were not included. 25

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Witness: M. J. Burke

Q. Did you contact the respondents to the RFP process
 asking them to clarify your assumptions about their
 proposals?

Yes, all respondents were contacted in writing on 4 Α. November 19, 1998 and asked for the additional 5 information needed to fully evaluate their offer. Most 6 of the uncertainty at this stage of the analysis 7 concerned the reliability of the fuel supply, unit 8 ratings, unit heat rates, and overall availability of 9 the offers. Therefore, the questions were categorized 10 into generation, fuel, transmission, and structure 11 12 questions.

13

Q. As a result of this dialogue with the respondents, wereany of the original proposals modified?

A. Yes, most of the original proposals were modified and
two of the respondents made additional proposals for
consideration under this RFP. This resulted in a
total of nine proposals being carried forward in the
final stages of the evaluation.

21

Q. After receiving the answers to your clarifying
questions, was there a need to perform the analysis
again to include this additional information?

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A. Yes, each time a respondent provided updated
 information the analysis was repeated to ensure that
 the value of that revision was included in the relative
 ranking of the offers.

5

6 Q. At what point did you evaluate Gulf's Smith Unit 3
7 option?

I received the site specific Smith Unit 3 cost Α. 8 estimates on October 27, 1998. As I will discuss in a 9 moment, this submission did not include gas 10 transportation costs. The evaluation process was 11 designed so that the evaluation of the self-build 12 alternative would follow the same evaluation procedure 13 that the proposals had already been through. This 14 process design was created to ensure that the analysis 15 procedure would not have a bias toward or away from the 16 self-build alternative. The bid evaluation team also 17 requested additional information from the self-build 18 team when necessary. 19

20

Q. You mentioned earlier that Gulf's self-build submission
did not include gas transportation costs. How were
these costs factored into the analysis?
A. Originally, Gulf Power's plan included an estimated \$90
million cost for construction of a gas pipeline to the

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Bay County site. In September 1998, SCS issued a 1 separate RFP for Firm natural gas service to the Smith 2 site. The offers received in response to that Natural 3 Gas RFP were generally less costly than Gulf's original 4 plan. Information from this solicitation was used in 5 the evaluation of the self-build proposal. Having 6 multiple fuel supply alternatives allows Gulf Power to 7 negotiate among the vendors to achieve a significantly 8 lower pipeline cost for the facility than what was 9 originally estimated. 10

11

You mentioned earlier that your overall objective is to 12 Ο. identify the most cost effective supply-side 13 alternative. Do you consider the results of your 14 evaluation to have achieved this goal? 15 Yes. The evaluation of alternatives for the Gulf Power Α. 16 solicitation did provide Gulf Power with accurate 17 relative rankings of the proposals and the self-build 18 alternative. 19

20

21 Q. What were the results of your evaluation?

A. The results of the evaluation reveal that the 540 MW
self-build Smith Unit 3 is the most cost-effective
alternative for the customers of Gulf Power Company.
Referring to my Schedule MJB-2, this table outlines all

Docket No. 990325-EI 11 Witness: M. J. Burke

of the final offers and their relative rankings after 1 the detailed evaluation. One can see from this 2 schedule that Gulf's Smith Unit 3 had a much lower cost 3 than any of the competing offers. In fact, these 4 relative rankings prepared by my team indicate more 5 than \$90 million accumulated NPV(2002\$) savings over 6 the next best alternative. 7 8 Does this conclude your testimony? 9 Ο. Yes it does. 10 Α. 11 12 13 14 15 16 17

Florida Public Service Commission Docket No. 990325-EI Gulf Power Company Witness: Maria Jeffers Burke Exhibit No. _____ (MJB-1) Schedule 1

Gulf Power Company

RFP Initial Screening Results

Summer Rating MW	Proposal	Location	NPV Total Cost \$/kW (2002\$)
500	Combined Cycle	Holmes County, FL	273.8
486	Combustion Turbine	Holmes County, FL	332.1
350	Family of Cogeneration Facilities	Mobile, AL and Santa Rosa County, FL	432.3
532	Combined Cycle	Hardee County, FL	565.2

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Florida Public Service Commission Docket No. 990325-EI Gulf Power Company Witness: Maria Jeffers Burke Exhibit No. _____(MJB-2) Schedule 2

Gulf Power Company

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RFP Relative Ranking – Detailed Evaluation

Rank	MW	Bidder	NPV Total Cost \$/kW (2002\$)
1	540	Smith Unit 3	279
2	486	Respondent B CT (20 Year Pricing)	496
3	500	Respondent B CC (10 Year Pricing)	505
4	532	Respondent C	511
5	500	Respondent B CC (7 Year Pricing)	522
6	486	Respondent B CT (10 Year Pricing)	527
7	486	Respondent B CT (7 Year Pricing)	539
8	500	Respondent B CC (20 Year Pricing)	553
9	350	Respondent A	592
10	532	Respondent C (Fixed Energy)	616

AFFIDAVIT

STATE OF ALABAMA COUNTY OF JEFFERSON Docket No. 990325-EI

Before me the undersigned authority, personally appeared Maria Jeffers Burke, who being first duly sworn, deposes, and says that she is a Project Manager in the Generation Planning And Development of Southern Company Services, an Alabama corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief. She is personally known to me.

les bucke

Maria Jeffers Brufke Project Manager – SCS Generation Planning And Development

Sworn to and subscribed before me this 35th day of

The , 1999.

Netary Public, State of Alabama at Large

NOTARY PUBLIC STATE OF ALABAMA AT LARGE. MY COMMISSION EXPIRES: Apr. 11, 1999, BONDED THRU NOTARY PUBLIC UNDERWRITERS.