

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990325-EI

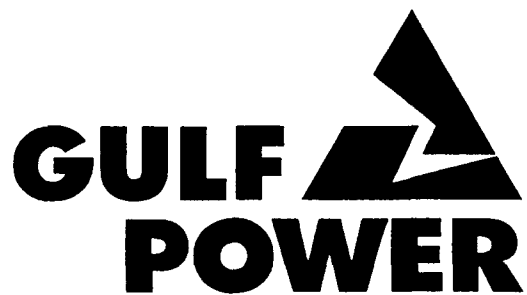
PETITION FOR NEED DETERMINATION

PREPARED DIRECT TESTIMONY

OF

M. W. HOWELL

APRIL 5, 1999



A SOUTHERN COMPANY

DOCUMENT NUMBER-DATE

04353 APR-5 99

FDSC-RECORDS/REPORTING

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission
3 Direct Testimony of
4 M. W. Howell
5 Docket No. 990325-EI
6 Date of Filing: April 5, 1999

7 Q. Please state your name, business address and
8 occupation.

9 A. My name is M. W. Howell, and my business address is One
10 Energy Place, Pensacola, Florida 32520. I am
11 Transmission and System Control Manager for Gulf Power
12 Company.

13 Q. Have you previously testified before this Commission?

14 A. Yes. I have testified in various rate case,
15 cogeneration, territorial dispute, planning hearing,
16 fuel clause adjustment, and purchased power capacity
17 cost recovery dockets.

18
19 Q. Please summarize your educational and professional
20 background.

21 A. I graduated from the University of Florida in 1966 with
22 a Bachelor of Science Degree in Electrical Engineering.
23 I received my Masters Degree in Electrical Engineering
24 from the University of Florida in 1967, and then joined
25 Gulf Power Company as a Distribution Engineer. I have

1 since served as Relay Engineer, Manager of
2 Transmission, Manager of System Planning, Manager of
3 Fuel and System Planning, and Transmission and System
4 Control Manager. My experience with the Company has
5 included all areas of distribution operation,
6 maintenance, and construction; transmission operation,
7 maintenance, and construction; relaying and protection
8 of the generation, transmission, and distribution
9 systems; planning the generation, transmission, and
10 distribution systems; bulk power interchange
11 administration; overall management of fuel planning and
12 procurement; and operation of the system dispatch
13 center.

14 I am a member of the Engineering Committees and
15 the Operating Committees of the Southeastern Electric
16 Reliability Council and the Florida Reliability
17 Coordinating Council, and have served as chairman of
18 the Generation Subcommittee of the Edison Electric
19 Institute System Planning Committee. I have served as
20 chairman or member of many technical committees and
21 task forces within the Southern electric system, the
22 Florida Electric Power Coordinating Group, and the
23 North American Electric Reliability Council. These
24 have dealt with a variety of technical issues including
25 bulk power security, system operations, bulk power

1 contracts, generation expansion, transmission
2 expansion, transmission interconnection requirements,
3 central dispatch, transmission system operation,
4 transient stability, underfrequency operation,
5 generator underfrequency protection, and system
6 production costing.

7

8 Q. What is the purpose of your testimony in this
9 proceeding?

10 A. The purpose of my testimony is to summarize the
11 requirement which our customers have for the 540 MW
12 combined cycle addition at Plant Smith.

13

14 Q. Are you sponsoring any exhibits to supplement your
15 testimony in this proceeding?

16 A. Yes, I am sponsoring Sections 1, 2, and 9.4, as well as
17 Appendix A, of the Need Study filed in this docket.

18

19 Q. What is the first data which Gulf examines in
20 determining a need for future capacity?

21 A. The load forecast is the first major input. The
22 Company's Witnesses Neyman and Marler have described in
23 detail what goes into preparing our forecast, the state
24 of the art computer models we use, and the integration
25 of expected conservation and other adjustments to

1 develop a sound forecast. The result is a forecast
2 which predicts with reasonable accuracy what our future
3 demands will be. The fact that we have a forecasting
4 accuracy that places us in the top third of state
5 utilities is testimony to the quality and dependability
6 of our forecast.

7

8 Q. What is the next step in the process?

9 A. We compare our load forecast to our available capacity.
10 Our goal is to have enough generation resources to
11 cover our load with a reasonable reserve margin. As
12 covered in Mr. Pope's testimony, we will have adequate
13 capacity through 2001 by using external power purchases
14 and by relying upon available Southern system reserves.
15 By 2002, when the purchases expire, we will be 427 MW
16 short of capacity without additional resources. The
17 540 MW addition at Smith Plant will be an appropriate
18 fit for our needs.

19

20 Q. What is the next step in the process?

21 A. Once we know what our load and reserve requirements
22 are, we must select the appropriate capacity resource.
23 Mr. Pope has described how we determined what our
24 reasonable alternative choices were for Gulf Power to
25 add capacity, how we developed cost estimates for those

1 alternatives, and how we eventually came to the
2 decision that our best self-build option was the Smith
3 combined cycle unit.

4
5 Q. Did the plans of other utilities offer you any
6 confirmation that you had come to the right choice?

7 A. Yes. Other utilities needing capacity are adding the
8 same type of combined cycle capacity as we are
9 proposing, primarily for the economics and efficiencies
10 it offers the customers who use the electricity.

11

12 Q. What was the result of Gulf's analysis?

13 A. As Mr. Pope described, the 540 MW combined cycle
14 facility at Smith Plant was the most cost-effective
15 self-build alternative. It is a good match for the
16 amount of capacity needed. The unit has an excellent
17 heat rate. Gas is a good, economical fuel choice in
18 today's energy market, with relatively lower associated
19 environmental costs. And, most importantly of all, it
20 resulted in a significantly lower cost than any other
21 alternative.

22

23 Q. After Gulf determined that the Smith combined cycle
24 project was the best internal choice, how did it
25 proceed?

1 A. We prepared a Request For Proposals (RFP) to test the
2 market for a long term power purchase. Such a market
3 test is a reasonable way to determine if your project
4 is the most cost-effective. So, we prepared the RFP,
5 advertised it in state newspapers and national industry
6 magazines, and sent unsolicited copies to approximately
7 100 potential respondents.

8
9 Q. What was the result of Gulf's analysis of the responses
10 as compared to your self-build option?

11 A. Witness Maria Burke has covered in detail how the
12 proposed facility at Smith Plant has an NPV savings to
13 our customers of over \$90 million over the 20-year
14 evaluation period compared to the best offer received
15 in response to the RFP. With this overwhelming
16 economic advantage, Smith Unit 3 was clearly the
17 Company's most cost-effective alternative.

18
19 Q. What would the consequences be if the Commission did
20 not find a need for Smith Unit 3?

21 A. As mentioned in Section 3.4.4 of the Need Study, recent
22 inquiries in the purchased power market have resulted
23 in fewer and more expensive offers for capacity and
24 energy. Gulf has demonstrated through steps taken to
25 date that its selection of Smith Unit 3 is the most

1 cost-effective alternative available for the Company to
2 meet its customers' load requirements beginning in
3 2002. Even with some minor delays, Gulf believes that
4 it can achieve a summer 2002 in-service date for Smith
5 Unit 3 in order to prevent having to use this high-
6 priced purchased power. However, if there is a long
7 delay of Smith Unit 3 that prevents meeting the June
8 2002 in-service date, at a minimum Gulf's customers
9 will pay more for their electrical energy than
10 necessary. The Company is also concerned with the
11 possibility that without this unit's timely
12 installation, which helps support Southern system
13 reserves, there are additional reliability issues that
14 could affect customer service.

15

16 Q. What, then, is Gulf asking of this Commission?

17 A. We are asking for a prompt certification of the need
18 for Smith Unit 3 so we may proceed with the many
19 remaining steps necessary to get this capacity
20 installed for our customers' 2002 requirements.

21 We have demonstrated clearly that we need this
22 additional capacity for our customers' needs in 2002.
23 We have developed a quality load forecast that
24 consistently gives good results. We have examined
25 reasonable generating alternatives and determined that

1 the best self-build candidate for our future generation
2 needs is Smith Unit 3.

3 We have gone through the formal RFP process to
4 determine the market economics of long-term power
5 purchases as opposed to our own construction, performed
6 a rigorous economic analysis, and demonstrated that
7 Smith Unit 3 is a clear winner over any other available
8 alternative. We ask the Commission to certify our need
9 as soon as practicable.

10

11 Q. Does this conclude your testimony?

12 A. Yes.

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 990325-EI

Before me the undersigned authority, personally appeared M. W. Howell, who being first duly sworn, deposes, and says that he is the Manager of Transmission and System Control of Gulf Power Company, a Maine corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.

M. W. Howell

M. W. Howell, Manager
Transmission and System Control

Sworn to and subscribed before me this 1st day
of April, 1999.

Candace Klinglesmith

Notary Public, State of Florida at Large

