

ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990325-EI

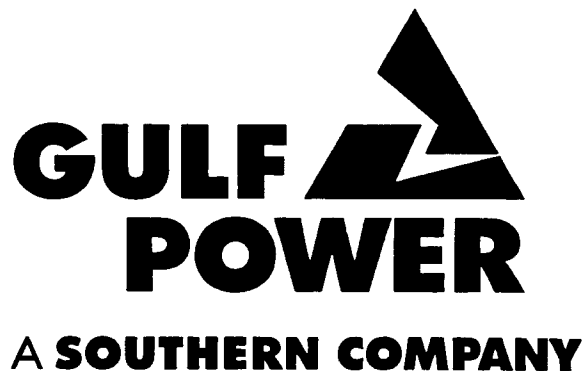
PETITION FOR NEED DETERMINATION

PREPARED DIRECT TESTIMONY

OF

MARGARET D. NEYMAN
AND
MICHAEL J. MARLER

APRIL 5, 1999



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FPSC-RECORDS/REPORTING

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission
3 Direct Testimony of
4 Margaret D. Neyman and Michael J. Marler
5 Docket No. 990325-EI
6 Date of Filing: April 5, 1999

7 Q. Mrs. Neyman, would you please state your name,
8 business address and occupation?

9 A. My name is Margaret D. Neyman and my business address
10 is One Energy Place, Pensacola, Florida, 32520. I am
11 employed by Gulf Power Company as the Marketing
12 Services Manager.

13 Q. Mrs. Neyman, please summarize your educational
14 background and professional experience.

15 A. I attended Auburn University and graduated with a
16 Bachelor of Science degree in Industrial Engineering
17 in 1980. I began my career in the electric utility
18 industry at Gulf Power Company in 1981 and have held
19 various positions within the company in Corporate
20 Planning, Customer Service, Appliance Sales and
21 Marketing. In my present position, I am responsible
22 for Energy Conservation Cost Recovery (ECCR) filings,
23 pricing, economic evaluations, market research,
24 forecasting and marketing services activities.

1 Q. Mrs. Neyman, have you previously testified before
2 this Commission?

3 A. Yes, I have testified for Gulf Power Company in ECCR
4 dockets.

5

6 Q. Mr. Marler, would you please state your name,
7 business address and occupation?

8 A. My name is Michael J. Marler, and my business address
9 is One Energy Place, Pensacola, Florida 32520. I am
10 employed by Gulf Power Company as a Senior Engineer
11 in Marketing Services. I am responsible for
12 development of the customer, energy and peak demand
13 projections.

14

15 Q. Please summarize your educational background and
16 professional experience.

17 A. I graduated from the University of South Alabama in
18 December, 1981 with a Bachelor of Science degree in
19 Electrical Engineering. While attending school, I
20 participated in the Cooperative Education program
21 with Alabama Power Company in Mobile, Alabama. Upon
22 graduation in 1981, I accepted a position with Gulf
23 Power Company in Load Research. In this position, I
24 was responsible for the Cost-to-Serve load research
25 including the sampling plan development, data

1 collection, analysis and reporting. I was also
2 involved in other load studies designed to evaluate
3 customer energy usage patterns, end-use load studies,
4 and energy efficiency measures. In 1987, I joined
5 the forecasting section. In this position, I have
6 been responsible for development of the Company's
7 short-term customer, energy, base revenue and peak
8 demand projections and coordination with Southern
9 Company Services in development of the long-term
10 projections. I am responsible for dissemination of
11 the forecast to all of the planning areas of the
12 Company as well as the various federal, state and
13 local governmental and regulatory agencies.

14
15 Q. Have you prepared an exhibit that contains
16 information to which you will refer in your
17 testimony?

18 A. Yes. We have an exhibit consisting of 3 schedules to
19 which we will refer. This exhibit was prepared under
20 our supervision and direction. We are also
21 sponsoring Section 4 and Appendix B of the Need Study
22 filed in this docket.

23 Counsel: We ask that Schedules 1, 2, and 3
24 be marked for identification as
25 Exhibit_____ (MDN/MJM-1).

1 Q. What is the purpose of your testimony?

2 A. Our testimony will describe the load forecasting
3 methodology for Gulf Power Company, the role of
4 conservation programs in the forecast and their
5 effect on the projected growth in system peak demand.
6 Finally, we will provide an overview of the
7 historical forecast accuracy achieved by Gulf's
8 forecasting methodology.

9
10 Q. Mrs. Neyman, in your position, what part do you play
11 in the forecasting process?

12 A. I am responsible for the development of the demand
13 side management (DSM) programs that comprise Gulf's
14 portfolio of conservation initiatives offered to its
15 customers. In this role, I am involved in the
16 program analysis and cost-benefit evaluations that
17 ultimately lead to the selection of DSM programs to
18 be implemented. The programs in Gulf's portfolio
19 offer a wide variety of demand side measures for
20 implementation by its customers. The primary impact
21 of these programs is a reduction in the overall peak
22 demand and energy needs. These reductions are
23 directly reflected in Gulf's load and energy
24 forecast.

25

1 Q. Mr. Marler, in your position, what part do you play
2 in the forecasting process?

3 A. My role is to oversee the development of the
4 customer, energy, and peak demand projections for
5 Gulf. I am specifically responsible for development
6 of the short-term (0-2 year) projections and for
7 interfacing these results with the long-term
8 projections developed by Southern Company Services
9 (SCS) personnel. I work closely with SCS to provide
10 insight and guidance in the development of the long-
11 term projections to ensure the best possible product
12 for use in the Southern electric system (SES)
13 resource planning process.

14
15 Q. Could you briefly describe the SES forecasting
16 process in which Gulf Power Company is involved?

17 A. Gulf Power Company is one of five operating companies
18 of Southern Company, along with Alabama Power,
19 Georgia Power, Mississippi Power and Savannah
20 Electric & Power. Each of the operating companies is
21 responsible for development of customer, energy and
22 peak demand projections for its own system. These
23 projections take into account the latest economic
24 outlook for each of the operating companies as well
25 as the expected impacts of conservation measures

1 unique to each service area, including programs
2 mandated by state and federal regulatory agencies.
3 The individual operating company forecasts are
4 aggregated to a total SES level to provide the
5 projections necessary to coordinate our planning for
6 the growth of the entire SES.

7

8 Q. What approach does Gulf use in preparing its
9 forecasts?

10 A. Gulf uses a variety of different techniques and
11 methodologies depending on the task at hand. These
12 range from short-term forecasts of customer growth,
13 based primarily on input from Gulf's district
14 marketing personnel, to long-range forecasts of
15 energy sales using sophisticated, state of the art
16 computer models such as REEPS and COMMEND.

17 Our peak demand forecast is prepared using the
18 Hourly Electric Load Model (HELM). This model uses
19 load data on individual end uses to produce hourly
20 load curves for the entire Gulf system. This
21 approach enables us to analyze the impact of factors
22 such as alternative weather conditions, customer mix
23 changes, fuel share changes, and demand side
24 programs. A more detailed explanation of Gulf's

1 forecasting process is contained in Chapter 4 and
2 Appendix B of the Need Study.

3

4 Q. Please describe the key results of Gulf's most recent
5 forecast.

6 A. The forecast shows that Gulf expects continued growth
7 in number of customers, though at a slightly slower
8 pace than over the last decade. Average usage per
9 customer remains almost constant between now and the
10 in-service date of Smith Unit 3.

11 Summer peak demand, which is the primary factor
12 that drives Gulf's capacity planning process, is
13 projected to grow by 126 MW, from 2,154 MW to 2,280
14 MW, between 1998 and 2003.

15 Schedule 1 of our exhibit (MDN/MJM-1) contains a
16 summary of the key forecast results. More detail is
17 provided in Appendix B to the Need Study.

18

19 Q. Please identify Gulf's conservation programs.

20 A. Gulf has in place several conservation programs
21 designed to achieve demand and energy reductions in
22 the Residential, Commercial and Industrial classes of
23 customers. These include programs that have been in
24 place for several years as well as the new programs
25 submitted in Gulf's Demand Side Management Plan filed

1 in 1995. These programs are listed on Schedule 2 of
2 our exhibit (MDN/MJM-1) and are described in detail
3 in Section 4.3.4 of the Need Study and Section
4 B.1.4.4 of Appendix B to that study. These programs
5 are designed to provide the maximum amount of cost-
6 effective conservation reasonably available to the
7 Company.

8

9 Q. How does Gulf take into account the anticipated
10 impacts of conservation programs on the peak demand
11 and energy projections?

12 A. Each of Gulf's conservation programs is evaluated
13 individually to determine the historical customer
14 participation trends. Program participation rates
15 are then projected based upon these trends and
16 anticipated changes in participation rates obtained
17 from Gulf's Residential and Commercial marketing
18 program managers. The expected number of
19 participants per year is then multiplied by the
20 demand and energy reductions per participant for each
21 of Gulf's conservation programs. The reductions are
22 then accumulated to determine the total anticipated
23 conservation impacts on summer peak demand, winter
24 peak demand, and annual energy.

25

1 Q. What does this analysis show about the impact of
2 Gulf's conservation programs?
3 A. As indicated in Schedule 3 of our exhibit
4 (MDN/MJM-1), Gulf expects to achieve a total
5 cumulative annual reduction of 365 megawatts (MW) in
6 summer peak demand, 423 MW in winter peak demand, and
7 an annual energy savings of nearly 650 million
8 kilowatt-hours by the year 2002 from what the figures
9 would have been without such programs. More detail
10 on these results is contained in Tables B-1 through
11 B-11 of Appendix B of the Need Study.

12

13 Q. What is Gulf's track record on forecast accuracy?

14 A. Gulf's forecasts have been very accurate. The FPSC's
15 Review of Electric Utility 1998 Ten-Year Site Plans
16 indicated that, of the nine reporting utilities in
17 the state with sufficient available historical data,
18 Gulf's average absolute percent error in retail sales
19 forecast accuracy for the period from 1993 through
20 1997 was 2.5% and ranked third best in the state.
21 Gulf's average forecast error for the same period was
22 estimated to be an under-forecast of 1.19%, which
23 also ranked third in the state. We believe that this
24 is evidence of the high quality of Gulf's forecast.

25

1 Q. Does this conclude your testimony?

2 A. Yes it does.

History and Forecast Summary							
	1989 History	1998 History	2003 Forecast	2008 Forecast	CAAG ¹ 1989-1998	CAAG ¹ 1998-2003	CAAG ¹ 1998-2008
Population	662,784	810,649	891,566	960,867	2.3%	1.9%	1.7%
Residential Customers	250,038	304,413	337,784	367,016	2.2%	2.1%	1.9%
Customer Gains					54,375	33,371	62,603
Kwh / Customer	13,173	14,577	14,677	14,995	1.1%	0.1%	0.3%
Energy (GWh)	3,294	4,438	4,958	5,503	3.4%	2.2%	2.2%
Commercial Customers	33,500	45,510	51,208	55,836	3.5%	2.4%	2.1%
Kwh / Customer	64,761	68,379	68,275	69,507	0.6%	0.0%	0.2%
Energy (GWh)	2,169	3,112	3,496	3,881	4.1%	2.4%	2.2%
Net Energy for Load (GWh)	8,378	10,402	11,658	12,661	2.4%	2.3%	2.0%
Summer Peak Demand (MW)	1,698	2,154	2,280	2,466	2.7%	1.1%	1.4%
Winter Peak Demand (MW)	1,554	1,692	2,139	2,258	0.9%	4.8%	2.9%
Load Factor (%)	56.3%	55.1%	58.4%	58.6%			

NOTES: ¹ CAAG stands for Compound Average Annual Growth

Demand Side Management Programs

Residential Programs:

1. GoodCents New Home
2. Heat Pump Upgrade
3. Resistance Heat to Heat Pump Upgrade
4. Air Conditioning Upgrade
5. Residential Energy Audit
6. Residential Mail-In Audit
7. *In Concert With The Environment*
8. Geothermal Heat Pump
9. Advanced Energy Management
10. Outdoor Lighting Conversion

Commercial Programs:

1. Commercial GoodCents Building
2. Commercial Energy Audit
3. Technical Assistance Audit
4. Commercial Mail-In Audit
5. Real Time Pricing Pilot
6. Outdoor Lighting Conversion

Street Lighting Conversion

Florida Public Service Commission
Docket No. 990325-EI
Gulf Power Company
Witnesses: Margaret D. Neyman
Michael J. Marler
Exhibit No. _____ (MDN/MJM-1)
Schedule 3

CONSERVATION PROGRAMS
CUMULATIVE ANNUAL REDUCTIONS AT GENERATOR

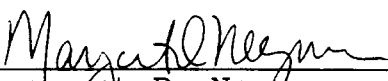
	Summer Peak (MW)			Winter Peak (MW)			Net Energy for Load (GWH)		
	Existing	New	Total	Existing	New	Total	Existing	New	Total
1997	214	30	244	263	6	269	514	9	523
2002	252	112	365	295	128	423	573	77	650
2008	290	199	489	335	256	590	625	146	770

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 990325-EI

Before me the undersigned authority, personally appeared Margaret D. Neyman, who being first duly sworn, deposes and says that she is the Marketing Services Manager of Gulf Power Company, a Maine Corporation, that the foregoing is true and correct to the best of her knowledge, information and belief. She is personally known to me.

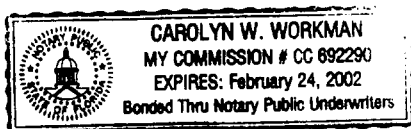


Margaret D. Neyman
Marketing Services Manager

Sworn to and subscribed before me this 24th day of March, 1999.



Notary Public, State of Florida at Large

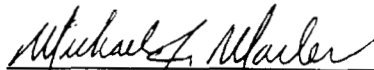


AFFIDAVIT

STATE OF FLORIDA)
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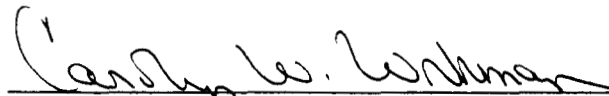
Docket No. 990325-EI

Before me the undersigned authority, personally appeared Michael J. Marler, who being first duly sworn, deposes and says that he is a Senior Engineer 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.



Michael J. Marler
Senior Engineer

Sworn to and subscribed before me this 24th day of March, 1999.



Notary Public, State of Florida at Large

