

Gulf Power Company  
500 Bayfront Parkway  
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Pensacola, FL 32520-0781  
Telephone 904-414-6231

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Susan D. Cranmer  
Assistant Secretary and  
Assistant Treasurer

(the southern electric system)

October 15, 1996

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:

RE: Docket No. 930885-EU

Enclosed for official filing are an original and fifteen copies of the following:

1. Prepared direct testimony of Theodore S. Spangenberg, Jr. 11013-96
2. Prepared direct testimony and exhibits of Russell L. Klepper. 11014-96
3. Prepared direct testimony and exhibits of G. Edison Holland, Jr. 11015-96
4. Prepared direct testimony and exhibits of William C. Weintritt. 11016-96

ACK \_\_\_\_\_

AFA \_\_\_\_\_

APP 1 \_\_\_\_\_

CAF \_\_\_\_\_

CMU \_\_\_\_\_

CTE \_\_\_\_\_

EA \_\_\_\_\_

EL 1 \_\_\_\_\_

EP 3 \_\_\_\_\_

C \_\_\_\_\_

RF \_\_\_\_\_

SE 1 \_\_\_\_\_

WAS \_\_\_\_\_

OTH \_\_\_\_\_

Sincerely,

*Susan D. Cranmer*

lw

cc:

Beggs and Lane  
Jeffrey A. Stone, Esquire

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to resolve )  
territorial dispute with Gulf )  
Coast Electric Cooperative, Inc. ) Docket No. 930885-EU  
by Gulf Power Company )  
\_\_\_\_\_ )

Certificate of Service

I HEREBY CERTIFY that a copy of the foregoing has been furnished this 14<sup>th</sup> day of October 1996 by U.S. Mail or hand delivery to the following:

Vicki Johnson, Esquire  
Staff Counsel  
FL Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0863

Patrick Floyd, Esquire  
Gulf Coast Electric Coop.  
408 Long Avenue  
Port St. Joe FL 32456

John Haswell, Esquire  
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Hubbard Norris  
Gulf Coast Elec. Coop., Inc.  
P. O. Box 220  
Wewahitchka FL 32465

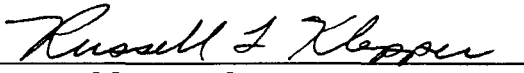
Russell A. Badders  
JEFFREY A. STONE  
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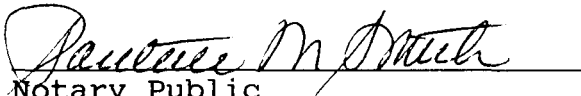
STATE OF GEORGIA     )  
                                  )  
COUNTY OF FULTON    )

Docket No. 930885-EU

Before me the undersigned authority, personally appeared Russell L. Klepper who being first duly sworn, deposes, and says that he is a consultant from Rawson, Klepper & Company for Gulf Power Company, a Maine corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief.

  
\_\_\_\_\_  
Russell L. Klepper  
Rawson, Klepper & Company

Sworn to and subscribed before me this 8th day of October,  
1996.

  
\_\_\_\_\_  
Notary Public

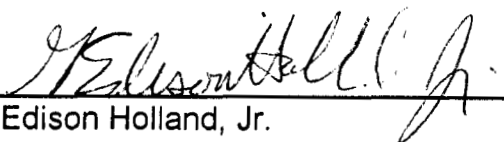
Notary Public, Fulton County, Georgia  
My Commission Expires Sept. 26, 1997

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STATE OF FLORIDA     )  
                                  )  
COUNTY OF ESCAMBIA )

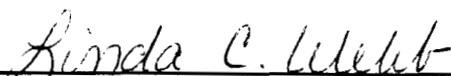
Docket No. 930885-EU

Before me the undersigned authority, personally appeared G. Edison Holland, Jr. who being first duly sworn, deposes, and says that he is the Vice President -- Power Generation/Transmission and Corporate Counsel for 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.

  
\_\_\_\_\_  
G. Edison Holland, Jr.  
Vice President -- Power Generation/  
Transmission and Corporate Counsel

Sworn to and subscribed before me this 14th day of October,

1996.

  
\_\_\_\_\_  
Notary Public, State of Florida at Large

AFFIDAVIT

STATE OF FLORIDA     )  
                                  )  
COUNTY OF ESCAMBIA )

Docket No. 930885-EU

Before me the undersigned authority, personally appeared William C. Weintritt who being first duly sworn, deposes, and says that he is the Power Delivery Manager for 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.

  
\_\_\_\_\_  
William C. Weintritt  
Power Delivery Manager

Sworn to and subscribed before me this 14th day of October,  
1996.

  
\_\_\_\_\_  
Notary Public, State of Florida at Large



LINDA C. WEBB  
Notary Public-State of FL  
Comm. Exp: May 31, 1998  
Comm. No: CC 382703

ORIGINAL  
FILE COPY

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 930885-EU

PREPARED DIRECT TESTIMONY  
OF  
THEODORE S. SPANGENBERG, JR.

OCTOBER 15, 1996



11013 OCT 15 96

FPSC-RECORDS/REPORTING

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission  
3 Direct Testimony of  
4 Theodore S. Spangenberg, Jr.  
5 Docket No. 930885-EU  
6 Date of Filing: October 15, 1996

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

9 A. My name is T. S. (Ted) Spangenberg, Jr. My business  
10 address is 500 Bayfront Parkway, Pensacola, Florida. I  
11 am employed by Gulf Power Company as their Residential  
12 Marketing Manager.

13 Q. Please summarize your educational and professional  
14 background.

15 A. I hold Bachelor's and Master's degrees in Electrical  
16 Engineering from Auburn University. I have worked for  
17 Gulf Power Company and its affiliates within the  
18 Southern Company for the past 20 years. My experience  
19 during that time frame includes positions and direct  
20 work involvement in the areas of load research, market  
21 research, demand forecasting, cogeneration, customer  
22 service, line service, distribution field engineering,  
23 transmission, executive administration, substation  
24 engineering, and residential marketing.

25

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to describe a method that  
3 could be used by the Florida Public Service Commission  
4 (the Commission) to establish territorial boundaries  
5 between Gulf Power Company (GULF) and Gulf Coast  
6 Electric Cooperative (GCEC). This method factors in the  
7 capabilities of existing electric service facilities and  
8 the economics of facilities expansion.

9

10 Q. If the Commission mandates the establishment of  
11 territorial boundaries between GULF and GCEC consisting  
12 of specific and detailed geographic delineations (i.e.  
13 "lines on the ground"), where should those lines be  
14 located?

15 A. Different types of loads require different types of  
16 capabilities and facilities for providing adequate and  
17 reliable electric service. Therefore, a territorial  
18 boundary consisting of "lines on the ground" would have  
19 to be established for each of several different types of  
20 loads. While performing this feat with precise accuracy  
21 would require fashioning it for many more types of loads  
22 and with variations for different geographic  
23 characteristics, for the sake of simplicity and ease of  
24 administration I would suggest only six. I will refer  
25 to them as Category 1, Category 2, etc.



1           Category 1 type loads are those that are likely to  
2           require, at a minimum, major revisions to the bulk power  
3           transmission system. Specific size loads would have to  
4           be determined for the various transmission lines in the  
5           area, but would generally be those in the range of 50 MW  
6           or so and above. The territorial boundaries for these  
7           and all other loads should be established such that the  
8           difference in the amount that one utility would have to  
9           spend to serve these loads and what the other utility  
10          would have to spend would be no more than a "de minimus"  
11          amount. Detailed studies would have to be conducted to  
12          determine precise distances, but, generally, territorial  
13          boundaries should be established such that each utility  
14          would be allowed to serve any Category 1 load having a  
15          service point that is located within several miles of  
16          any of that utility's 230 kV and higher voltage  
17          transmission facilities.

18          Category 2 type loads are those that are likely to  
19          require the construction of a new substation but not  
20          require major revisions to the transmission system.  
21          These loads would typically be in the range of 10 MW to  
22          50 MW, although the top end of this band would vary  
23          depending upon the capabilities and limitations of the  
24          transmission system in a particular area. Again, the  
25          concept of a "de minimus" difference in cost to serve

1       should be applied. While, once again, detailed studies  
2       would need to be conducted to determine more precise  
3       distances, the territorial boundaries for these loads  
4       should be established such that each utility would be  
5       allowed to serve any Category 2 load having a service  
6       point that is located within several miles of any of  
7       that utility's existing transmission or sub-transmission  
8       lines.

9               Category 3 type loads are those that are likely to  
10       require that a new three-phase distribution feeder be  
11       constructed from an existing substation that is capable  
12       of serving the additional load. These loads would  
13       typically be in the range of 3,000 to 10,000 kW. Again,  
14       the "de minimus" approach should apply and calculations  
15       be performed with the territorial boundaries for these  
16       loads established such that each utility would be  
17       allowed to serve any Category 3 load having a service  
18       point that is located within several miles of any of  
19       that utility's existing distribution substations.

20              Category 4 type loads are those that would not  
21       require the construction of a new feeder but are likely  
22       to require the construction of an extension of or a  
23       service drop from an existing three-phase distribution  
24       feeder. These loads would generally be in the range of  
25       50 kW to 3,000 kW. The territorial boundaries for these

1 loads should be established such that each utility would  
2 be allowed to serve any Category 4 load having a service  
3 point that is located within several thousand feet of  
4 any of that utility's existing three-phase distribution  
5 facilities, with a more precise distance determined  
6 through appropriate costing studies.

7 Category 5 type loads are those that are likely to  
8 require the construction of an extension of or a service  
9 drop from a two-phase (minimum) distribution line.  
10 These loads would require 3-phase secondary service, but  
11 would have small enough 3-phase motor loads that they  
12 could be served by an open-delta transformer bank  
13 supplied by a 2-phase primary line. They would  
14 generally be in the range of 10 kW to 50 kW. The  
15 territorial boundaries for these loads should be  
16 established such that each utility would be allowed to  
17 serve any Category 5 load having a service point that is  
18 located within several thousand feet of any of that  
19 utility's existing two-phase or three-phase primary  
20 distribution lines.

21 Category 6 type loads are those that would require  
22 the construction of a service drop from or an extension  
23 of a single-phase (minimum) distribution line.  
24 Therefore, the territorial boundaries for these loads  
25 should be established such that each utility would be

1 allowed to serve any Category 6 load having a service  
2 point that is located within one thousand feet of any of  
3 that utility's existing primary (4 kV or above)  
4 distribution facilities.

5

6 Q. Would the establishment of territorial boundaries using  
7 these criteria result in some overlapping areas for GULF  
8 and GCEC for each of the categories?

9 A. Yes, it would. It is my understanding that the Florida  
10 Supreme Court has established that some level of  
11 expenditure by one utility in excess of what another  
12 utility would have to spend is not necessarily  
13 "uneconomic." Given the current locations of each  
14 party's facilities, there are going to be some loads at  
15 some locations that either party could serve without the  
16 occurrence of uneconomic duplication. It is my  
17 understanding that the purpose of this proceeding is to  
18 establish territorial procedures or mechanisms such that  
19 uneconomic duplication of facilities is prevented. If  
20 the mechanism prescribed is one of detailed geographical  
21 delineations, the method I have described accomplishes  
22 that prevention purely on the basis of economics.

23 The method I have described could be altered to  
24 establish exclusive areas based on an equidistance or  
25 other criteria for facilities with similar capabilities,

1 but such a process would ignore the definition of  
2 uneconomic duplication as recently clarified by the  
3 Florida Supreme Court. Additionally, such a method  
4 would still require, on the basis of economics,  
5 overlapping territories for different types of services  
6 or loads, though not for the same type of service or  
7 load.

8 If an intent is to establish territorial boundaries  
9 in the form of specific geographical delineations such  
10 that no uneconomic duplication is likely to occur, the  
11 territorial boundaries should be established as I have  
12 described. The distances from the existing facilities  
13 for each Category would be calculated and defined such  
14 that any construction cost difference between the two  
15 utilities is "de minimus" with respect to the total cost  
16 to serve that particular Category of load in the areas  
17 of overlapping boundaries. Using this approach, any  
18 prospective customer that is locating within overlapping  
19 territories for the appropriate Category of load should  
20 be allowed to choose between the two electric service  
21 suppliers.

22  
23 Q. Using this method, would there be areas that might not  
24 be included in either utility's assigned territory?

25 A. Yes, in the low customer density area that is the

1 subject of this docket this could occur for one or more  
2 of the various load categories I have described.  
3 Naturally, in these instances a new customer locating in  
4 such an area should be afforded the opportunity to  
5 choose an electric service supplier, assuming that both  
6 utilities are willing to serve and/or both have an  
7 obligation to serve. In any instance in which the  
8 customer can be afforded an initial choice of provider,  
9 the customer can consider the long term economic impact  
10 of their decision and act accordingly. Should GULF  
11 offer to serve and should the customer select GULF to  
12 provide such service, the customer would then have the  
13 benefit of competitive rates, full regulatory  
14 protection, and the availability of our residential and  
15 commercial rate options and our expert residential and  
16 commercial energy conservation and management  
17 assistance.

18

19 Q. Would the process that you have proposed for setting  
20 territorial boundaries require the establishment of six  
21 different sets of boundaries?

22 A. Yes, it would, and this is necessary when you accept the  
23 reality that, if the likelihood of the occurrence of  
24 uneconomic duplication is to be significantly diminished  
25 through geographical location criteria, then those

1 geographical criteria should be established with respect  
2 to the nature of the load in question. The wholesale  
3 tariff provisions that were in effect between GULF and  
4 GCEC for many years accomplished this with a single  
5 distance specification accompanied by a load size  
6 criteria. With respect to specific power delivery cost  
7 parameters relative to different sizes and nature of  
8 loads, that method was rather simplistic and inexact,  
9 but it avoided the complexities and inflexibility of  
10 specific geographical boundaries for every hill and  
11 hollow of Northwest Florida. The method I have  
12 proposed is clearly superior to a single set of lines or  
13 other process that would assign electric service rights,  
14 for example, to a 35 MW industrial complex in the year  
15 2002 based on the location of single phase distribution  
16 primary in 1996.

- 17
- 18 Q. Would the graphical depiction of the territorial  
19 boundaries utilizing your proposed process require six  
20 different sets of maps?
- 21 A. Yes, most likely. The mapping of the territories could  
22 be accomplished using some type of overlapping color  
23 codes on a single set of maps, but, for ease of  
24 understanding, six different sets of maps would probably  
25 be most workable. There would be a set of maps for each

1       Category of load. When service to a particular customer  
2       was in question, each utility would simply look at the  
3       set of maps that matched that Category of load to  
4       determine whether it was allowed to provide service to  
5       that particular customer. If either utility could  
6       provide service without uneconomic duplication of the  
7       other utility, the customer would be afforded the  
8       opportunity to make a one-time selection of their  
9       electric service provider based on electricity prices,  
10      reliability of service, power quality, or other  
11      characteristics to which that particular customer might  
12      assign value.

13

14    Q. Once these maps were initially established, would they  
15      require revision in the future?

16    A. Absolutely. Anytime you establish territorial  
17      boundaries as specific geographical delineations and  
18      these boundaries are established on the basis of the  
19      location of existing facilities, you must make  
20      provisions for the future construction of necessary  
21      facilities. While this might not be an issue in areas  
22      of this state where there is already a relatively high  
23      density of power delivery facilities, it is certainly an  
24      issue in the areas that are under consideration in this  
25      particular proceeding, that is, areas where the customer



1 density is relatively low. Changes that will occur as  
2 additional facilities are constructed would need to be  
3 addressed by an annual or biannual update of the  
4 existing facilities mapping, followed by an update of  
5 each of the six load Category sets of boundary maps and  
6 a subsequent filing and approval proceeding with this  
7 Commission and other interested parties. Any process  
8 that uses "lines on the ground" would regularly and  
9 frequently require direct Commission involvement to make  
10 adjustments for additional facilities. This would,  
11 obviously, require more frequent Commission activity  
12 with regard to territorial boundaries and issues than  
13 the current process has required over the last ten  
14 years.

15 Again, let me point out that it is not my position  
16 that the method that I have proposed is the best process  
17 for avoiding uneconomic duplication of electric service  
18 facilities; however, it is my position that this method  
19 is the best if specific and detailed geographic  
20 delineations are mandated.

21  
22 Q. Does this conclude your testimony?

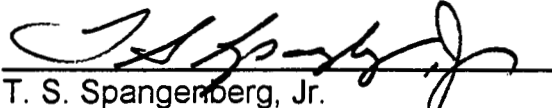
23 A. Yes, it does.  
24  
25

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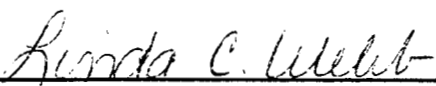
STATE OF FLORIDA     )  
                                  )  
COUNTY OF ESCAMBIA )

Docket No. 930885-EU

Before me the undersigned authority, personally appeared T. S. Spangenberg, Jr. who being first duly sworn, deposes, and says that he is the Residential Marketing Manager for 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.

  
\_\_\_\_\_  
T. S. Spangenberg, Jr.  
Residential Marketing Manager

Sworn to and subscribed before me this 14th day of October,  
1996.

  
\_\_\_\_\_  
Notary Public, State of Florida at Large



**LINDA C. WEBB**  
Notary Public-State of FL  
Comm. Exp: May 31, 1998  
Comm. No: CC 362703