

LAW OFFICES  
**CHANDLER, LANG & HASWELL, P.A.**  
POST OFFICE BOX 23879  
GAINESVILLE, FLORIDA 32602-3879

ORIGINAL

JAMES F. LANG  
JOHN H. HASWELL  
C. WHARTON COLE

TELEPHONE 352/376-6226  
TELECOPIER 352/372-8058  
211 N.E. FIRST STREET  
GAINESVILLE, FL 32601-5387

WILLIAM H. CHANDLER  
1920-1992

September 22, 1997

Blanca Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2549 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Via Hand Delivery

RE: Clay Electric Cooperative, Inc.  
and Florida Power & Light Company  
Docket No. 970512-EU

Dear Ms. Bayo:

I am enclosing herewith the original and fifteen (15) copies of Clay Electric Cooperative Inc.'s Rebuttal Testimony of Herman Dyal and Stafford McCartney which I would appreciate your filing in this docket.

Very truly yours,

  
John H. Haswell

ACK \_\_\_\_\_  
AFA \_\_\_\_\_  
APP \_\_\_\_\_ JHH/lez  
CAF \_\_\_\_\_ cc: Mark Logan, Esquire  
CMU \_\_\_\_\_ Robert Elias  
CTR \_\_\_\_\_ William C. Phillips  
EAG Bar Henry Dyal  
LEG 2 Henry Barrow  
LIN 2 + orig  
OPC \_\_\_\_\_  
RCH \_\_\_\_\_ c:\wp60\CLAY\RIVERCIT\BAY012.LTR  
SEC 1  
WAS \_\_\_\_\_  
OTH \_\_\_\_\_

Dyal - 09618-97  
McCartney - 09619-97

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Petition of Florida Power & Light )  
Company to Resolve a Territorial Dispute with )  
Clay Electric Cooperative in Baker County )  
\_\_\_\_\_ )

Docket No.: 970512-EU

Filed: September 22, 1997

REBUTTAL TESTIMONY  
OF HERMAN DYAL  
ON BEHALF OF  
CLAY ELECTRIC COOPERATIVE, INC.

DOCUMENT NUMBER-DATE

09618 SEP 22 5

\*FPSC-RECORDS/REPORTING

1 Q Please state your name and business address.

2 A Herman Dyal, Clay Electric Cooperative, Inc., Post Office Box 308, Keystone  
3 Heights, Florida 32656.

4

5 Q Are you the same Herman Dyal that filed prepared direct testimony in this case?

6 A Yes I am.

7

8 Q Have you had the occasion to review the direct testimony and exhibits of Robert A.  
9 Hood who filed testimony on behalf of Florida Power and Light Company ("FPL")?

10 A Yes I have.

11

12 Q What is the purpose of your testimony?

13 A To rebut Mr. Hood's direct testimony as it relates to claims by FPL directly or by  
14 implication that its proposed service to River City Plastics will provide the same  
15 character and quality of service as that offered by Clay Electric, to question the costs  
16 that Mr. Hood claims would be expended by FPL as well as his statements regarding  
17 future growth in the area, and his claims about uneconomic duplication.

18

19 Q Do you have any experience and expertise in pricing and costing of distribution,  
20 substation, and transmission facilities?

21 A Yes I do. I have been working in the electric utility business for over 24 years, as  
22 a licensed professional engineer. I have extensive experience and knowledge in the  
23 planning and determining of what facilities and equipment are necessary and prudent  
24 for providing electric service to customers and those facilities of the electric utility  
25 that are needed for the utility's system to provide the character of service requested

1 by a customer. Part of that process involves determining what the cost of the  
2 equipment will be, as well as doing an economic analysis of the revenues that are  
3 required to justify the costs and cost recovery.  
4

5 Q Would you please go ahead and discuss your areas of disagreement and rebuttal?

6 A Mr. Hood does not accurately answer the question of who has historically served the  
7 area or its vicinity. The specific site of the River City Plastics plant has not been  
8 served by either utility. We do agree that both of us serve in the vicinity of the site,  
9 but as I indicated in my direct testimony, Clay Electric has and continues to serve  
10 the areas immediately east of the site as well as areas south, north and northeast.  
11 FPL basically has elected to serve to the west of the site and into the community  
12 of Sanderson.  
13

14 Q Does Mr. Hood appear to claim the right to serve areas already served by Clay  
15 Electric?

16 A Yes he does. He claims, on page 8 of his testimony, that the Wiremill substation was  
17 built by FPL to serve additional customers in the undeveloped area of the substation  
18 and the surrounding areas both east and west. If he goes east past his substation  
19 he will be in our service area where we have existing customers and have served  
20 them for many years. For FPL to do so would require it to uneconomically duplicate  
21 our facilities.  
22

23 Q Do you have any comments on Mr. Hood's reliability claims that there have been no  
24 outages at the Wiremill substation in the past five years?

25 A Well first he limits his answer to outages caused by substation equipment. He did



1 not say there were no outages. He did not disclose that on July 12 of this year the  
2 Wiremill substation experienced a major outage that affected the Florida Wire and  
3 Cable facility. Hopefully FPL will disclose that in their discovery response to us, as  
4 well as the actual number of outages regardless of the cause. We really cannot fully  
5 evaluate FPL's reliability other than to note at this time that there have been more  
6 outages than Mr. Hood admits.

7

8 Q What about the reliability of the Baldwin-Columbia transmission line of FPL?

9 A The Wiremill substation is not served directly from the Baldwin-Columbia  
10 transmission line. It is served off a radial tap two miles long. When that tap is out,  
11 Wiremill substation is out. The tap runs along Rhoden Road which is shown on my  
12 Exhibit \_\_\_\_ (HD-2) and on Hood's Exhibit \_\_\_\_ (RAH-4). Rhoden Road is a graded  
13 county road and FPL's poles are extremely close to the road. It appears that FPL  
14 is occupying an easement that is not more than fifteen (15) feet in width. The  
15 proximity of the pole line to the road and the prospect of increasing traffic make it  
16 a reliability issue for FPL. If FPL plans to add additional service along Rhoden Road  
17 to serve River City Plastics, as it proposes, I do not see where they could put the  
18 additional facilities unless they underbuild on the existing transmission line, and it  
19 does not appear to me that the transmission line tap was designed to handle  
20 underbuilt distribution. This gets into his costs if FPL has to modify the transmission  
21 line or move the existing poles.

22

23 Q Has there been any discussion about moving FPL's poles on Rhoden Road?

24 A Yes. Baker County wants to improve the road and FPL has told the County the cost  
25 to move a single pole is between \$75,000.00 and \$90,000.00. I do not believe they

1 included that cost in their cost estimates. Also, if a vehicle hits one of FPL's poles  
2 adjacent to the road, assuming they do not move those poles, it would take at least  
3 four (4) to six (6) hours for FPL to repair the damage and restore service, and  
4 perhaps even longer depending on where FPL's crews come from to fix the damage.  
5 Keep in mind that Clay Electric's Sanderson substation is also served by Seminole  
6 Electric Cooperative, Inc. off the Baldwin-Columbia transmission line. If that line is  
7 out, both FPL's Wiremill substation and our Sanderson substation will be out.  
8 However, if FPL suffers an interruption on its two (2) mile tap, FPL's Wiremill  
9 substation will be out, but Clay Electric's Sanderson substation would not be  
10 affected.

11  
12 Q Mr. Hood also states that FPL will spend about \$104,600.00 for its proposed service  
13 to River City Plastics of which about \$40,000.00 is for overhead service and  
14 \$64,600.00 is for substation improvements. He says that the improvements that FPL  
15 will construct will serve River City Plastics and will take into consideration "the future  
16 needs of this customer and future growth in the area". What comments do you have  
17 about those statements?

18 A Certainly it is prudent for a utility to construct facilities capable of serving the  
19 foreseeable load in an area. Mr. Hood has stated that the projected growth in the  
20 area is 1.2 percent. The size of the conductor that FPL proposes to use, as shown  
21 on Hood's Exhibit 6, has a minimum capacity of 16 megawatts. Considering the  
22 testimony that FPL's Wiremill substation is loaded to 8.5 megawatts, it seems  
23 unrealistic to expect this line to reach its capacity within the next thirty (30) years,  
24 the useful life of the line. So it appears that the "future needs of this customer and  
25 future growth in the area" that Mr. Hood is talking about would require the continued

1 expansion of FPL's facilities into areas already served by Clay Electric and that can  
2 be adequately served by Clay Electric.

3

4 Q What about FPL's cost to build the underground feeder and overhead feeder line as  
5 shown on Exhibit 6 and as estimated on Exhibit 19?

6 A Those costs appear to be in error on the underground pulloff. This cost appears to  
7 be for 1/0, not 1,000mcm as stated. The underground cost should be about  
8 \$12,000.00 instead of the \$5,000.00 estimated. Again, FPL appears to have  
9 estimated costs using the transmission poles. I am not sure they can build a 568  
10 ACSR line on the transmission poles. Consequently they have made no provisions  
11 for the additional costs they will have for adjustments to the transmission line.

12

13 Q FPL also indicates that it would add a new substation feeder position in its Wiremill  
14 substation consisting of three (3) single phase voltage regulators and associated bus  
15 work for \$64,600.00. Do you think that cost is reasonable based on your  
16 experience?

17 A I believe Mr. Hood has omitted the additional cost for a breaker for this feeder  
18 position. It is my opinion that a realistic cost estimate would be as follows:

19	Breaker	\$20,000.00
20	Regulators	\$75,000.00
21	Buswork and labor	\$40,000.00
22	Total	\$135,000.00

23 If FPL plans on using the existing breaker which appears it is now using as a transfer  
24 breaker, it will no longer have a dedicated breaker for this use.

25



1 Q Is FPL capable of providing adequate and reliable service to River City Plastics as  
2 Mr. Hood states?

3 A Well FPL obviously has the substation capacity available. However, as I have said  
4 before, regarding the substation improvements and primary service facilities that  
5 need to be constructed, there appears to be some serious questions as to how FPL  
6 can build what it needs to build on the available easement area without putting those  
7 facilities in danger of traffic related outages. After reviewing the load projections it  
8 seems that FPL's existing capacity has been the result of poor planning and  
9 excessive investment costs. Obviously FPL's ratepayers have been paying for this  
10 excess capacity. The system planned by FPL will not provide the type of service the  
11 customer is requesting. River City Plastics is requesting the capability to be isolated  
12 from the electric supplier in cases of inclement weather as well as having a  
13 continuous source of power in the event of a catastrophic failure on the electric  
14 system whether it is distribution, substation or transmission related. River City  
15 Plastics' production schedule runs 24 hours a day, 7 days a week. Based on the  
16 customer's need, it is my judgment that FPL will not provide the adequate and  
17 reliable electric service that the customer requests.

18  
19 Q What about Mr. Hood's claim that the number of interruptions seen by a customer  
20 is inversely proportional to the length of the line serving the customer?

21 A I strongly disagree with that statement. Interruptions on a line are a factor of the  
22 terrain that the line traverses, its exposure to outside damage such as weather,  
23 trees, vehicles, etc., and the maintenance a utility performs on the line. Certainly  
24 the longer the line is exposed to weather conditions, traffic and trees if they are  
25 present may increase the chances and opportunities for interruptions. However, they



1 are not inversely proportional. A line that runs 2,950 feet through the woods, or  
2 immediately adjacent to a road, and that is subject to contact with trees or vehicles  
3 may be less reliable than a line that runs two (2) or three (3) miles through open  
4 fields, away from trees or traffic. Also a longer line that is closer to a utility's repair  
5 crew facilities may be more reliable than a shorter line that is farther away from the  
6 utility's repair crews.

7

8 Q FPL has claimed that it can offer River City Plastics several different scenarios for  
9 backup service or dual feed. What are your comments regarding Mr. Hood's  
10 statements?

11 A The only service acceptable to River City Plastics is the backup generators. In fact,  
12 the other two scenarios are not viable options at all. Those scenarios offer varying  
13 choices of preferred and backup distribution lines to an automatic throw over switch.  
14 They provide no means for River City Plastics to operate in case of a failure in the  
15 substation or transmission line. Outages in either of these areas could be extensive,  
16 at least four (4) to six (6) hours or more depending on the damage and where FPL's  
17 repair crews are located.

18 Under scenario two stated by Mr. Hood, the overhead feeder with the overhead  
19 feeder backup, FPL proposes to provide the backup feeder on a separate pole line  
20 as shown on Exhibit 8. It is my opinion that FPL would have problems building the  
21 backup line to the north of the existing transmission line as shown. Baker County  
22 owns the undeveloped property and has been unwilling to grant any easements on  
23 this property. It appears that the only viable route for FPL would be south on  
24 Rhoden Road where they would have to cross back and forth under the existing  
25 transmission line. Again, FPL has included no costs for this. They would also have

1 to clear additional right-of-way.

2

3 Q Do you agree with Mr. Hood's costs for option number two as stated on page 15 of  
4 his testimony beginning at line 7?

5 A No I do not. It is my opinion that the costs for option number two to FPL should be:

6	Preferred overhead feeder	\$55,000.00
7	Backup overhead feeder	\$39,600.00
8	Substation costs	\$135,000.00
9	Throw over switch	\$40,000.00
10	Total	\$269,600.00

11

12 Q What about the cost for option number three?

13 A I disagree with his projected costs and it is my opinion those costs should be:

14	Underground feeder	\$80,281.00
15	Backup overhead feeder	\$39,600.00
16	Substation costs	\$135,000.00
17	Throw over switch	\$40,000.00
18	Total	\$294,881.00

19

20 Q Mr. Hood claims that FPL has the capability of providing adequate and reliable  
21 backup or dual feed service to River City Plastics. Do you agree with that  
22 statement?

23 A No. Again, FPL is not offering the customer the service it is requesting. Mr. Hood  
24 also claims that either of those two options for backup service will be "extremely  
25 reliable". I do not know exactly what kind of throw over switch they are proposing

1 to provide, but to avoid a momentary outage on transfer, they must be willing to  
2 parallel the feeders, this is not a normal mode of operation.

3

4 Q What about Mr. Hood's comments that there is no reliability provided by a generator  
5 as backup or dual service?

6 A Again, FPL totally misunderstands or refuses to consider the customer's request.  
7 The customer has repeatedly stated that it understands and accepts reasonable  
8 amounts of isolated momentary interruptions. The service that River City Plastics  
9 wants is the ability to keep its production facility running at all times regardless of  
10 problems on the electric system whether it is Clay Electric's or FPL's. River City  
11 Plastics optimum operating condition is a production line running 24 hours a day, 7  
12 days a week. Its goal with the generators is to run them isolated from the primary  
13 system whenever there is severe weather in the area and in the case of the  
14 catastrophic failure of the electric system whether it is weather induced or otherwise,  
15 or whether he wants to get his plant back into production as soon as possible to  
16 avoid duplicating restart costs when outages and glitches continue to occur during  
17 the restart process.

18

19 Q Mr. Hood claims that if FPL is not permitted to serve River City Plastics and this  
20 disputed area to the east of its Wiremill substation it would incur a loss of revenues  
21 from new customers and refers to the area to the east of the substation as  
22 undeveloped. He claims these areas are areas that the Wiremill station was  
23 originally planned to serve. What comments do you have about those statements?

24 A FPL indicates that their Wiremill substation was located at its present location to  
25 serve growth to the west and to the east. FPL specifically notes the area eastward



1 along Rhoden Road toward Maccienny. I do not understand their claim to this area  
2 since Clay Electric has served these areas since 1943, long before the Wiremill  
3 substation was built. If they were planning on growth and revenues from this area  
4 to support the building of the Wiremill substation I would again question their  
5 planning process and prudence for spending the amount of money they obviously  
6 spent to build the Wiremill substation at such a high capacity. Also if they are  
7 concerned with the costs associated with obtaining private easements versus public  
8 rights-of-way, it seems to me that they are ignoring the wasteful duplication of  
9 facilities. I do not think there is any doubt that Mr. Hood is stating that FPL claims  
10 the right to serve all areas surrounding the Wiremill substation up to its rated  
11 capacity. The area surrounding the Wiremill substation will not, in its useful lifetime,  
12 support the excessive capacity built into the substation. Consequently what has  
13 been the effect on the ratepayers of FPL for the underutilization of the substation for  
14 the past twenty (20) years? It appears that FPL's grab for territory east of its  
15 substation is an attempt to reverse its overbuilding and underutilization of its facilities  
16 at the expense of Clay Electric.

17  
18 Q If we look only at the primary or preferred overhead service to River City Plastics and  
19 ignore River City Plastics' needs for the generators, who can provide the service at  
20 the least cost?

21 A Based even on FPL's understated costs, Clay Electric can serve the customer for  
22 a cost of \$98,000.00 as opposed to FPL's costs of \$104,600.00. If we look at  
23 realistic costs to FPL and still ignore the cost it will incur in relocating its transmission  
24 line or rebuilding it, or acquiring new easements, the cost difference is even greater  
25 for FPL at \$135,000.00 and Clay Electric at \$98,000.00. Even if the Commission

1           were to say that the cost difference was "de minimis" then the customer's choice is  
2           to be considered. The customer chose Clay Electric.

3

4        Q     Will Clay Electric uneconomically duplicate service by FPL if it provides the service  
5           requested by River City Plastics?

6        A     No it will not. First, FPL has a higher cost to serve at the primary service level.  
7           Secondly, FPL has refused to provide the load management generator/backup  
8           service that River City Plastics has requested. In that instance alone, we are not  
9           talking about the same kind of service. FPL simply has not offered to provide the  
10          service that the customer wants. Third, Clay Electric's construction of its facilities  
11          is in an area already served by Clay Electric. As the area grows, new load can be  
12          served from Clay Electric's existing facilities and those added to serve River City  
13          Plastics, as the logical and natural extension and growth of Clay Electric's system.  
14          Clay Electric's objective in its planning is not to build more capacity in its substations  
15          and distribution facilities that are reasonably necessary for the foreseeable future.  
16          To do otherwise would require Clay Electric's members to pay for unnecessary and  
17          unused capacity. If anyone has constructed uneconomic facilities it is FPL by  
18          installing a 44 megawatt substation in 1976 to serve what twenty (20) years later is  
19          an 8.5 megawatt load. Even with River City Plastics on its system, its total load on  
20          Wiremill would still be one-fourth (1/4) of its capacity, and that situation could continue  
21          for another twenty (20) years.

22                We are serving the areas shown on my Exhibit \_\_\_\_\_ (HD-1) to my direct  
23                testimony. We plan to continue to serve that area and have built facilities to serve  
24                as they are needed. We could have built our Sanderson substation at 44 megawatts  
25                or even at 25 megawatts twenty (20) years ago, but that would not have been a

1 prudent investment.

2

3 Q What about the cost of the load management generators?

4 A In the first place, FPL has not offered this service, and to compare it in terms of total  
5 costs, we would have to consider that Clay Electric's costs to provide the backup  
6 generators would be substantially the same as FPL's costs. So at the very least, the  
7 cost to the two (2) utilities to provide the service requested by the customer would  
8 be substantially the same if we ignore FPL's underestimated costs for primary  
9 service. Clay Electric will incur a cost in purchasing the backup generators,  
10 however, we have carefully analyzed the economic benefit to Clay Electric and its  
11 members for using those generators, and there is a net cost savings to Clay  
12 Electric's members for the use of those generators under the existing agreement with  
13 River City Plastics. It is a win win situation. Clay Electric's members benefit and the  
14 customer benefits.

15

16 Q Does this conclude your rebuttal testimony?

17 A At this time, yes; however, I may have supplemental comments after we have  
18 received and reviewed FPL's discovery responses.

19

20

21

22

23

24

25

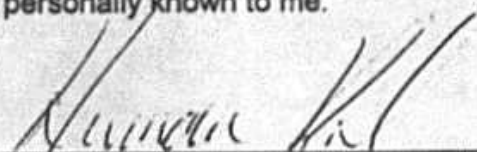


**AFFIDAVIT**

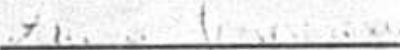
STATE OF FLORIDA     )  
                                  )  
COUNTY OF CLAY     )

Docket No. 970512-EU

Before the undersigned authority, personally appeared Herman Dyal, who being first duly sworn, deposes and says that he is the Director of Engineering for Clay Electric Cooperative, Inc., a Florida corporation, that the foregoing is true and correct to the best of his knowledge, information and belief. He is personally known to me.

  
\_\_\_\_\_  
Herman Dyal  
Director of Engineering

Sworn to and subscribed before me this 22nd day of September, 1997.

  
\_\_\_\_\_  
Notary Public  
State of Florida  
My Commission expires  
and my number is:



LAURIE E ZIMMERMAN  
My Commission CO479079  
Expires Jun. 22, 1999  
Bonded by NAI  
800-422-1555

**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by regular U.S. mail to the following:

Patrick M. Bryan, Esquire  
Florida Power and Light Company  
700 Universe Boulevard  
Juno Beach, Florida 33408

Robert Elias, Legal Division  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399

Mark K. Logan  
Bryant, Miller & Olive  
201 South Monroe Street  
Suite 500  
Tallahassee, Florida 32301

W. G. Walker, III, Vice President  
Florida Power and Light Company  
Regulatory Affairs  
Post Office Box 029100  
Miami, Florida 33102-9100

on this 27<sup>th</sup> day of September, 1997.

  
\_\_\_\_\_  
John H. Haswell