

GULF POWER COMPANY

1
2 Before the Florida Public Service Commission
3 Direct Testimony of
4 Charles E. Jordan
5 In Support of Rate Relief
6 Docket No. 891345-EI
7 Date of Filing December 15, 1989

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

9 A. My name is Charles E. Jordan, and my business address
10 is 500 Bayfront Parkway, Pensacola, Florida 32501. I
11 am Director of Power Delivery of Gulf Power Company.

12 Q. Please describe your educational and business
13 background.

14 A. I graduated from Auburn University, Auburn, Alabama,
15 in 1965 with a Bachelor of Electrical Engineering
16 degree. I joined Gulf Power Company in June of 1965
17 as a Field Engineer. I held the engineering
18 positions of Relay Engineer and Division Distribution
19 Engineer, and in 1970 I was promoted to the position
20 of Eastern Division Engineer. In 1975 I was promoted
21 to Superintendent of Western Division Operations, and
22 in 1978 became Manager of Western Division
23 Operations. In 1980 I was promoted to Director of
24 Purchasing and General Services, and in 1989 was
25 appointed to my present position as Director of Power
Delivery.

1 Q. Have you prepared an exhibit that contains
2 information to which you will refer in your
3 testimony?

4 A. Yes. Schedule 1 is an index to the subsequent
5 schedules to which I will refer. Each schedule
6 of this exhibit was prepared under my supervision
7 and direction.

8 Counsel: We ask that Mr. Jordan's Exhibit,
9 comprised of 5 Schedules, be
10 marked for identification as
11 Exhibit _____ (CEJ-1).

12
13 Q. Are you the sponsor of certain minimum filing
14 requirements?

15 A. Yes. These are listed on Schedule 5 at the end
16 of my exhibit. To the best of my knowledge, the
17 information in these minimum filing requirements
18 (MFRs) is true and correct.

19
20 Q. What are your areas of responsibilities within
21 Gulf Power Company?

22 A. I have responsibility for Power Delivery, which
23 includes System Planning and Protection,
24 Distribution, Land Rights, and Division
25 Services. These areas include system relaying

1 and protection; telecommunications; generation,
2 transmission, and distribution planning;
3 distribution standards and services; land
4 acquisition and right-of-way functions;
5 transformer and vehicle repair services; and
6 materials and inventory control. In connection
7 with these areas, I have responsibility for
8 requesting and directing the assistance performed
9 by Southern Company Services, Inc. (SCS). I am
10 also responsible for work performed through
11 Southern Electric International (SEI) by Gulf
12 Power Company personnel.

13
14 Q. What is the purpose of your testimony in this
15 proceeding?

16 A. I will discuss the continuing need for the
17 distribution equipment associated with Greenhead
18 Substation, some specific productivity
19 improvements within my area of responsibility,
20 and Gulf's distribution Operation and Maintenance
21 (O & M) expenses as they compare to the
22 benchmark.

23
24 Q. Mr. Jordan would you please explain the
25 circumstances concerning the facilities at

1 Greenhead Substation?

2 A. The Greenhead Substation was constructed and
3 placed into service in late 1983 in order to
4 provide reliability support to the load being
5 served out of the Sunny Hills Substation as well
6 as to provide service to new load being developed
7 in the Leisure Lakes subdivision. It was
8 determined by the Commission in Docket No.
9 830484-EU that the cooperative in the area was
10 entitled to serve the new load at Leisure Lakes
11 subdivision. In light of the Commission's
12 finding, Gulf subsequently sold the distribution
13 line to the cooperative. The Greenhead
14 Substation has provided and continues to provide
15 reliability support to Sunny Hills, as well as to
16 a portion of the customer load served by the
17 Vernon Substation.

18 A recent evaluation of the Vernon
19 distribution area has indicated a need to
20 increase the transformer capacity in the Vernon
21 substation. This study also reveals that, from a
22 long-term economic and service level standpoint,
23 the Vernon distribution system should be
24 converted to 25 kv. In response to this study,
25 Gulf will relocate the Greenhead transformer to

1 the Vernon Substation in 1990. By installing the
2 Greenhead transformer at Vernon, Gulf will
3 provide the most cost-effective increase to the
4 transformer capacity while at the same time
5 improving the service to the Vernon area
6 customers and maintaining the backup source to
7 Sunny Hills Substation.

8

9 Q. What productivity improvement programs have been
10 instituted by any of the sections under your area
11 of responsibility in recent years?

12 A. We had programs put into place for cost saving
13 efforts in the transformer repair and truck
14 maintenance areas.

15

16 Q. How has Gulf's Work Management System improved
17 productivity and efficiency in distribution
18 construction and maintenance activities?

19 A. The Transmission and Distribution (T & D) Work
20 Management System designed by Southern Company
21 Services at the request of Gulf in 1983 was made
22 fully operational in January 1988. The total
23 project cost through 1989 will be \$1.7 million.
24 Gulf's line crew and service crew productivity
25 performance in 1989 is expected to be 4.6 percent

1 over that of 1988. This improved performance
2 will result in avoided contractor costs of
3 \$780,000. After deducting system costs of
4 \$200,000, net savings in 1989 are estimated to be
5 \$580,000. The projected goal for 1990 is 2
6 percent over 1989 (or 6.6 percent better than
7 1988) which will amount to an additional \$220,000
8 in avoided contractor costs.

9
10 Q. What improvements has the company made in
11 controlling its fleet transportation cost?

12 A. In response to a request by the Company, a study
13 was performed by the consulting firm of Ernst and
14 Whinney during 1984. The study recommended that
15 the Company implement a comprehensive preventive
16 maintenance program to extend the life of
17 mechanized equipment and improve the reliability
18 of the entire fleet. The study was approved by
19 management and implementation began the later
20 part of 1986. As a result, equipment reliability
21 has improved and the Company is realizing savings
22 of approximately \$2,000,000 annually.

23
24 Q. Please compare your current maintenance practices
25 to the years prior to the implementation of this

1 new program.

2 A. Prior to the new program, the company operated
3 one garage which was located in Pensacola. The
4 garage performed maintenance on all vehicles in
5 the Pensacola area and major maintenance for the
6 remaining company locations. Preventive
7 maintenance was, for the most part, left up to
8 the user. As recommended by the Ernst and
9 Whinney study, a minor garage was constructed in
10 the Eastern and Central Divisions in 1985 and
11 1986, respectively, and in 1986, a General Garage
12 was constructed in Pensacola. The previous
13 garage in Pensacola became the Western Division
14 garage and, along with the new garages in the
15 Eastern and Central Divisions became responsible
16 for performing preventive maintenance on all
17 mechanized equipment, class 4, 5, and 6
18 vehicles. Each vehicle now receives scheduled
19 preventive maintenance every six months. All
20 cars, pickup trucks and vans, which comprise
21 classes 1, 2, and 3 vehicles, receive preventive
22 maintenance every six months through outside
23 vendors. Rebuilding mechanized equipment which
24 was previously contracted out is now performed at
25 the new General Garage. Units requiring

1 rebuilding which exceed the Company's manpower
2 level are continuing to be contracted out.

3 Because of current preventive maintenance,
4 rebuilding and the purchasing of diesel engines,
5 the life of cab and chassis and aerial lifts for
6 mechanized equipment has been extended. For
7 service aerial lift trucks (class 4), the
8 previous policy was to replace the cab and
9 chassis and rebuild aerial lifts every five years
10 and completely replace the entire unit at ten
11 years. The current program provides a minor
12 rebuild at three years and a major rebuild at six
13 years. This cycle is continued and the cab and
14 chassis is considered for replacement the ninth
15 year. The aerial lift continues its rebuilding
16 cycle, thereafter, until economics determine when
17 it should be replaced. For line aerial lift
18 trucks (class 5 and 6) and digger derricks
19 (class 5 and 6), the previous policy was to
20 replace the cab and chassis and rebuild the
21 aerial lift every seven years and completely
22 replace the entire unit at fourteen years. The
23 current program provides a minor rebuild at three
24 and six years and a major rebuild at nine years.
25 This cycle is continued and the cab and chassis

1 are considered for replacement the twelfth year.
2 The aerial lift continues its rebuilding cycle,
3 thereafter, until economics determine when it
4 should be replaced.

5
6 Q. Do these savings reflect the increased
7 maintenance costs?

8 A. Yes. Since the new program has increased
9 preventive maintenance requirements, associated
10 maintenance cost has increased. However, due to
11 extending the life of mechanized equipment, the
12 capital budget has been decreased. The
13 \$2,000,000 is the net reduction when both costs
14 are added together. These figures are shown on
15 Schedule 2 of my exhibits.

16
17 Q. You discussed the savings realized through
18 extending the life of mechanized equipment. How
19 has reliability improved?

20 A. The Company annually employs the services of an
21 independent testing firm to test all mechanized
22 equipment. The test rates the condition of the
23 fleet in determining optimum reliability.
24 Reliability has increased from 21 percent in 1987
25 to 38 percent in 1988 to 85 percent in 1989.

1 This has resulted in less equipment breakdown,
2 thereby improving line crew personnel
3 productivity. These figures are shown on
4 Schedule 3 of my exhibits.

5
6 Q. Has the Company made improvements in the
7 operations of the General Repair shop?

8 A. Yes. In 1984, the General Repair shop, which
9 maintains transmission and distribution electric
10 equipment, occupied a facility which was over 25
11 years old, was overcrowded, and lacked current
12 technology. The major activities included the
13 repair of overhead transformers, oil circuit
14 reclosers, and voltage regulators. Smaller pad
15 mounted transformers could not be repaired
16 in-house and were scrapped. Large three-phase
17 pad-mounted transformers, which were of high
18 dollar value, were contracted out for repair. In
19 1986, the General Repair shop moved into a newly
20 constructed facility. The new facility provided
21 technological advances and sufficient work space
22 and parts area. Since 1984, productivity of the
23 General Repair Shop has increased as well as the
24 number of units repaired and returned to service,
25 primarily due to this new facility. Now, all

1 pad-mounted transformers are being repaired
2 in-house.

3

4 Q. Can you tell me how much your repair work output
5 has increased?

6 A. Yes. Shown below are the major functions of the
7 General Repair Shop, comparing the number of
8 units repaired in 1984 versus projected year-end
9 1989.

	<u>UNITS REPAIRED</u>		<u>PERCENT</u>
<u>EQUIPMENT</u>	<u>1984</u>	<u>1989</u>	<u>INCREASE</u>
Pole Mounted	665	1,500	126%
Pad Mounted	0	110	N/A
Oil Circuit Reclosers	167	255	53%
Voltage Regulators	42	75	79%

16 A more detailed tabulation of these figures
17 appears on Schedule 4 of my exhibits.

18

19 Q. What are the economics in repairing transformers
20 versus purchasing new ones?

21 A. In 1988, a total of 1,389 transformers were
22 repaired and returned to service. Considering
23 all maintenance costs, the Company realized
24 approximately \$700,000 savings in 1988.

25

1 Q. Why did public safety inspection and maintenance
2 programs increase our benchmark to the level
3 referred to in MPR C-57?

4 A. Since 1984, Gulf has developed and implemented
5 several new public safety programs designed to
6 reduce the risk of personal injury and property
7 damage situations at or near our facilities. One
8 program involves relocating utility poles away
9 from street edges where there is a concern that
10 they may be hit by motorists. Another program
11 examines the vertical clearance on all power
12 lines that cross navigable waterways to reduce
13 the likelihood that a sailboat could make contact
14 with the conductor.

15 In 1987, we began an aggressive public
16 safety program to inform our customers about
17 proper behavior around energized electrical
18 lines. We presented our program to the
19 Commission and received your support for our
20 efforts. Through September 1989, 921
21 presentations have been made by Gulf employees to
22 48,000 citizens of Northwest Florida. The
23 Company continues to include safety related
24 information in bill inserts. It has implemented
25 a program to perform field engineering audits of

1 samples from its new transmission and
2 distribution construction each year to ensure
3 that the Company is complying with the National
4 Electrical Safety Code and other appropriate
5 federal and state regulations.

6 The sum total of the public safety measures,
7 of which the above are representative examples,
8 requires increased funding to a variety of
9 overhead and underground maintenance accounts in
10 excess of the amount allowed by the 1984
11 benchmark. The benefits of these actions will be
12 reduced death, injury, and property damage to the
13 public, as well as reduced future liability
14 exposure to the Company. Gulf will continue its
15 efforts in maintaining public safety.

16
17 Q. What areas under your responsibility have
18 variances that fall above the benchmark?

19 A. In the Distribution O & M expense area, there are
20 deviations that result from Distribution System
21 Work Orders Clearance accounting and underground
22 line expansion.

23
24 Q. Would you briefly explain what is meant by "DSO
25 Clearance" and how it contributed to the overall

1 Distribution O & M deviation from benchmark?
2 A. DSO clearance describes the allocation process
3 for operation and maintenance costs associated
4 with distribution line construction accumulated
5 on Distribution System Work Orders (DSO). Labor
6 is allocated to O & M when it is cleared from the
7 work order in Construction Work in Progress
8 (CWIP) to O & M accounts after the work order is
9 signed off and classified in the Company's Plant
10 Accounting System.

11 Prior to 1983, the method for clearing O & M
12 costs from work orders in CWIP was based on the
13 engineer's final estimate. This estimate was
14 subtracted from the total cost of the job and the
15 remaining deviations adjusted within plant
16 accounts and cost-of-removal. After
17 implementation of a new Plant Accounting System
18 in January, 1983, the total actual cost of the
19 job was allocated over all items on the work
20 order based on work standards for plant
21 installed, plant removed, O & M, etc. This
22 process more equitably spreads the job costs over
23 all estimated elements.

24 In 1985, a study of line construction and
25 maintenance manhour standards provided

1 documentation for manhour requirements for both
2 plant and O & M which was far superior to
3 previous estimates. These new manhour standards
4 more accurately reflected the actual labor
5 required to do either activity. The relative
6 amount of dollars spent to do the work did not
7 increase, but rather the mix of charges between
8 plant and O & M changed. O & M began receiving a
9 more equitable share of the job cost.

10 In Gulf's 1984 rate case, the amount
11 budgeted for CWIP clearance to O & M was not
12 changed to reflect the change in the Company's
13 Plant Accounting System. Beginning in 1986, this
14 change was reflected in the O & M budgets,
15 including 1990.

16 In 1984, the budgeted amount cleared from
17 Distribution System Work Orders to O & M amounted
18 to \$1,190,000, whereas the 1990 budget estimate
19 is \$2,745,000, or 131 percent over 1984 and 53
20 percent over the 1990 benchmark.

21

22 Q. Please explain why underground line extensions
23 are a part of the excess deviation from the 1990
24 benchmark.

25 A. Our underground facilities are increasing at a

1 rate far greater than customer growth and
2 inflation which the benchmark allows. Between
3 1984 and September 1989, our miles of underground
4 primary distribution lines increased 67 percent
5 from 344 miles to 573 miles, and this trend is
6 expected to reach 620 miles of underground by
7 year-end 1990. This 80 percent increase in
8 underground line expansion is compared to a 26
9 percent customer growth rate for the 1984-1990
10 period. The cost to operate and maintain this
11 increased mileage, plus new programs installed to
12 mark and locate underground cables for safety and
13 efficiency and to repair prematurely failing
14 primary cable has caused our expenses in this
15 area to increase by 70 percent or \$351,000 over
16 the 1990 benchmark.

17

18 Q. Mr. Jordan does this conclude your testimony?

19 A. Yes.

20

21

22

23

24

25


AFFIDAVIT

STATE OF FLORIDA)

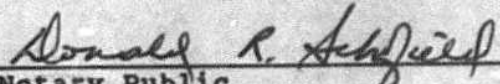
COUNTY OF ESCAMBIA)

Before me the undersigned authority personally appeared C. E. Jordan, who first being duly sworn, says that he is the witness named in the testimony to which the Affidavit is attached; that he prepared said testimony and any exhibits included therein on behalf of Gulf Power Company in support of its petition for an increase in rates and charges in Florida Public Service Commission Docket No. 891345-EI; and that the matters and things set forth herein are true to the best of his knowledge and belief.

Dated at Pensacola, Florida this 8th of December, 1989.


C. E. Jordan

Sworn to and subscribed before me
this 11 day of December, 1989.


Notary Public

Expires May 6, 1990



Florida Public Service Commission
Docket No. 891345-EI
GULF POWER COMPANY
WITNESS: C. E. Jordan
Exhibit No. _____ (CEJ-1)
Schedule 1

INDEX

<u>Description</u>	<u>Schedule</u>
Index to Schedules	1
Transportation Cost Savings Due to New Maintenance Program	2
Transportation Reliability Improvements	3
General Repair Shop Productivity Improvements	4
Responsibility of Minimum Filing Requirements	5

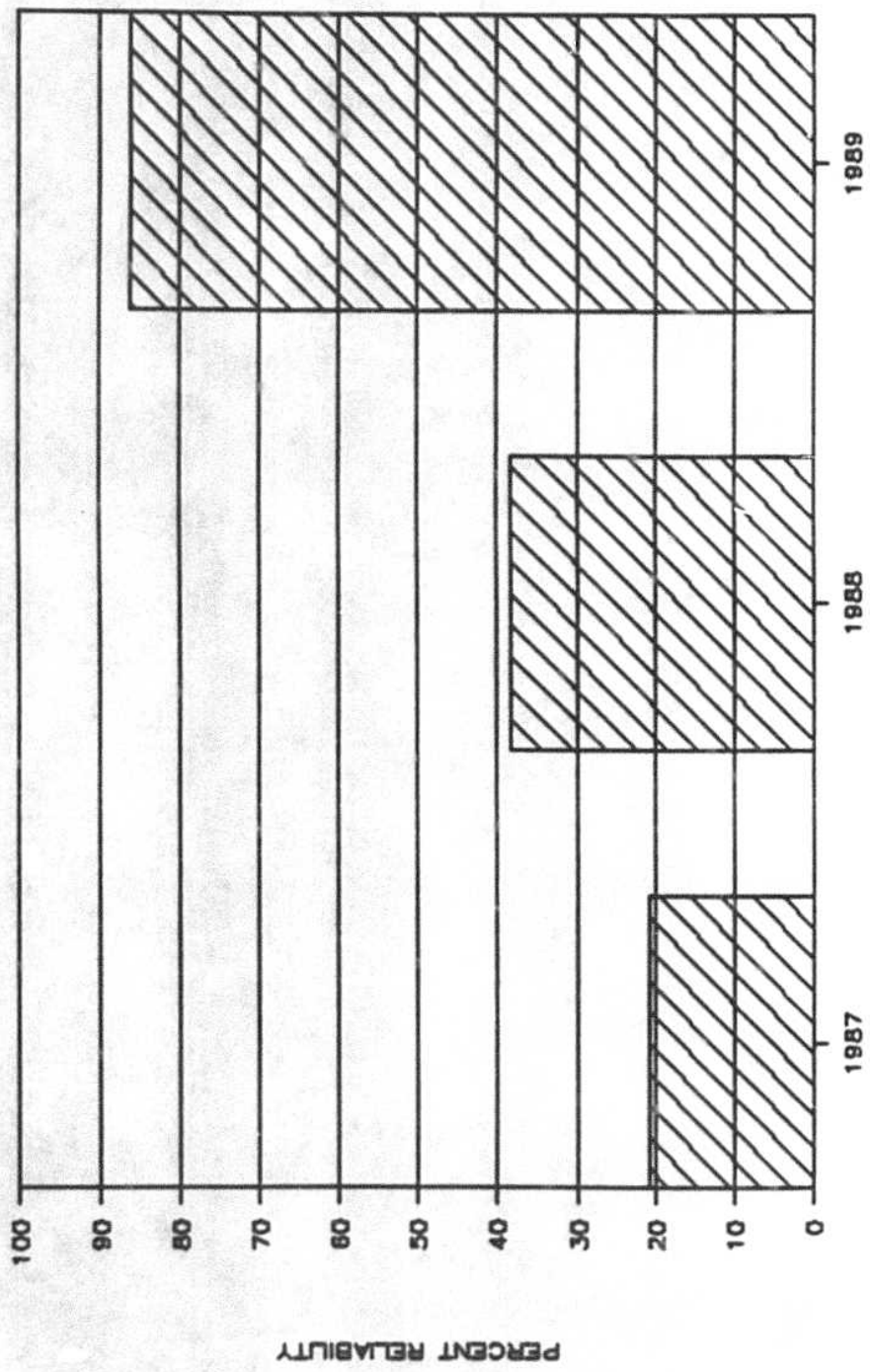
TRANSPORTATION COST SAVINGS DUE
 TO NEW MAINTENANCE
 PROGRAM (\$1000)

DESCRIPTION	1986	1987	1988	1989	1990	1991	1992	1993	1994
Original Forecast (1985)									
Plant (PE 4304)	3,270	3,561	3,775	4,107	4,500	4,900	5,292	5,715	6,173
Maintenance Expense	1,026	1,060	1,090	1,100	1,140	1,175	1,216	1,260	1,303
Total	4,296	4,621	4,865	5,207	5,640	6,075	6,508	6,975	7,476

DESCRIPTION	1986	1987	1988	1989	1990	1991	1992	1993	1994
New Program									
Plant (PE 4304)	1,820	2,128	1,584	1,400	2,000	2,100	2,200	2,300	2,426
Maintenance Expense	1,026	1,326	1,507	1,714	1,851	2,000	2,160	2,333	2,520
Total	2,846	3,454	3,171	3,114	3,851	4,100	4,360	4,633	4,946

Savings	1,450	1,167	1,694	2,093	1,789	1,975	2,148	2,342	2,530
Average Per Year Average Per Year								
Average Per Year	\$2,157								
Average Per Year Average Per Year								
Average Per Year	\$2,146								
Average Per Year Average Per Year								
Average Per Year	\$1,910								

TRANSPORTATION RELIABILITY IMPROVEMENTS



**GENERAL REPAIR SHOP
PRODUCTIVITY IMPROVEMENTS**

DESCRIPTION	Actual					Projected
	1984	1985	1986	1987	1988	1989
Pole Mounted Transformers	665	839	838	472 ⁽¹⁾	1,280	1,500
Pad Mounted Transformers	0	10	20	12	109	110
Oil Circuit Reclosers	167	230	159	255	287	255
Voltage Regulators	42	53	39	26	77	75

(1) Did not repair transformers for first six months, awaiting decision regarding PCB testing.

Florida Public Service Commission
Docket No. 891345-EI
GULF POWER COMPANY
WITNESS: C. E. Jordan
Exhibit No. _____ (CEJ-1)
Schedule 4

Florida Public Service Commission
Docket No. 891345-EI
GULF POWER COMPANY
WITNESS: C. E. Jordan
Exhibit No. _____ (CEJ-1)
Schedule .5

RESPONSIBILITY FOR
MINIMUM FILING REQUIREMENTS

<u>Schedule</u>	<u>Title</u>
C-57	O & M Benchmark Variance by Function
C-61	Performance Indices