

~~971468 EI~~

ORIGINAL

EXHIBIT "B"

- ACK _____
- AFA _____
- APP _____
- CAF _____
- CMU _____
- CTR _____
- EAG _____
- LEG _____
- LIN _____
- OPC _____
- RCH _____
- SEC 1 _____
- WAS _____
- OTH _____

DOCUMENT NUMBER-DATE

~~01125~~ JAN 21 88

FPSC-RECORDS/REPORTING

CONFIDENTIAL

ESQ-2 Item Number 1
1997 Power Delivery Downsizing Study

This document consists of pages 1 - 181. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

FPSC Audit Document/Record Request
Electric Service Quality Audit
Gulf Power Company
April 14, 1997

6. Identify any goals, objectives, and/or benchmarks relating to distribution maintenance.

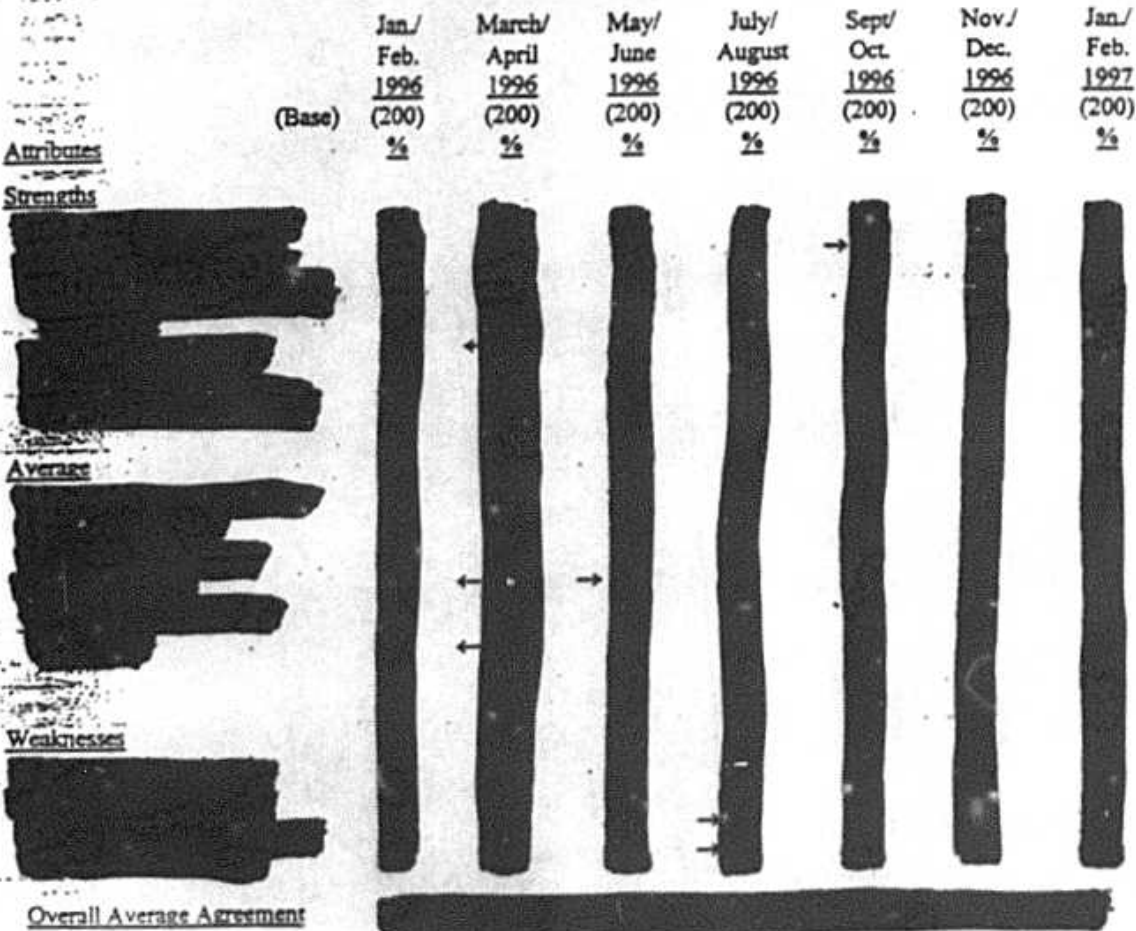
ANSWER:

Gulf's goal is to maintain a level of service that customers expect and can afford, while reducing the costs associated with maintenance of the system by identifying and planning specific distribution programs to accomplish this goal. Gulf uses its Public Opinion Research, Distribution Line Clearing Cost Goals, Line Clearing Reliability Goals and its Distribution Trouble Reports Outage Summary as benchmarks.

Regarding Gulf Power's Strengths and Weaknesses

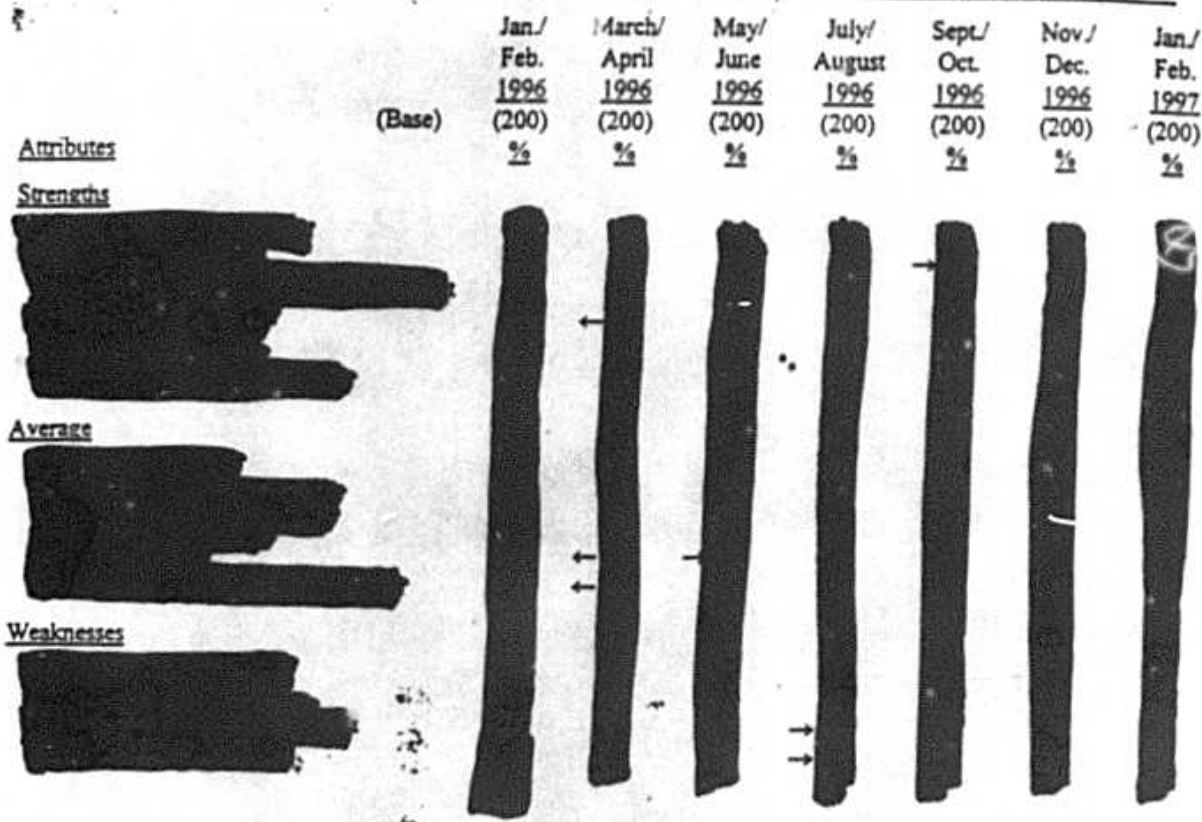
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Strengths and Weaknesses of Gulf Power
(% who agree with statements)

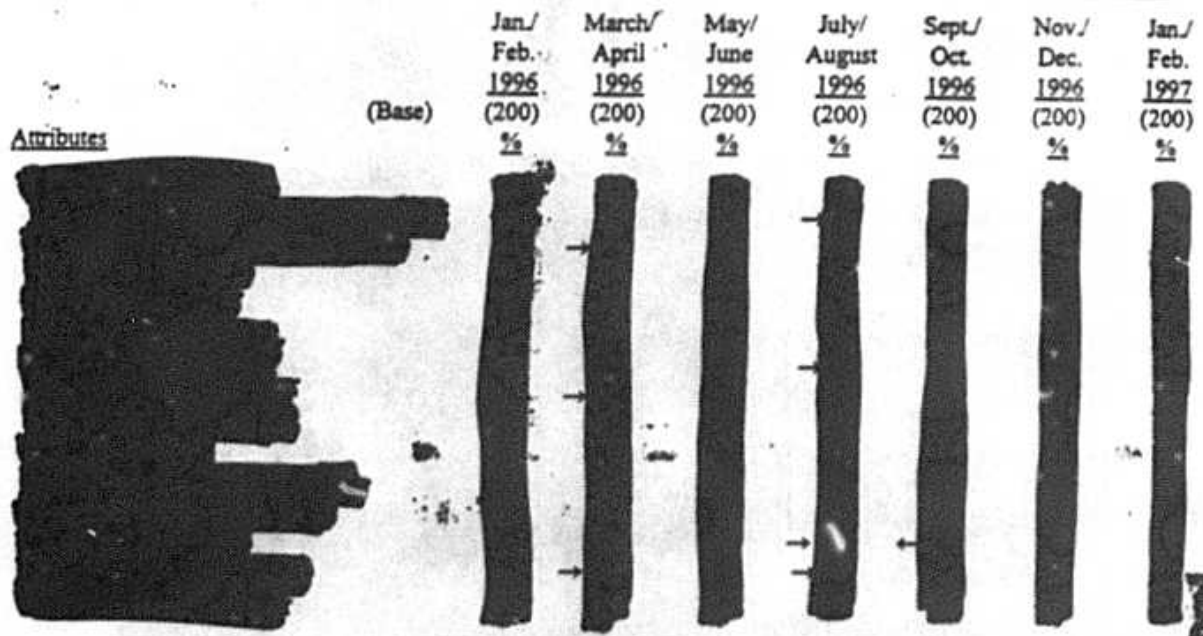


Strengths and Weaknesses of Gulf Power

Strengths and Weaknesses of Gulf Power (% Agree)



Strengths and Weaknesses of Gulf Power (% Disagree)



Q.: Please tell me if you agree, disagree, or have no opinion as to whether GULF POWER is doing a good job of (ATTRIBUTE).

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DIVISION	TOTAL OUTAGES	OUTAGES PER 100 MILES	NO. OF CUSTOMERS INTERRUPTED	CUSTOMERS INTER/MONTH	INTERRUPT TIME (MIN)	INTERRUPT TIME (MIN)/CUST	RELIABILITY INDEX	OUTAGES /100 MI	OUTAGES /100 MI
CURRENT PERIOD (03/96 THRU 02/97)									
EASTERN									
CENTRAL									
WESTERN									
COMPANY TOTAL									
PREVIOUS PERIOD (03/95 THRU 02/96)									
EASTERN									
CENTRAL									
WESTERN									
COMPANY TOTAL									
SIX-YEAR AVERAGE (03/91 THRU 02/97)									
EASTERN									
CENTRAL									
WESTERN									
COMPANY TOTAL									
CURRENT MONTH (02/97)									
EASTERN									
CENTRAL									
WESTERN									
COMPANY TOTAL									

Louis Rouillier
Bin 312

DSS44-86

SELF POWER COMPANY
DISTRIBUTION TROUBLE REPORTS
OVERHEAD AND UNDERGROUND OUTAGE SUMMARY

DATE 02/27/97
TIME 10 01 44

DIVISION	TOTAL OUTAGES	OUTAGES PER 100 MILES	NO. OF CUSTOMERS INTERRUPTED	PERCENT CUSTOMERS INTER/MONTH	TOTAL INTERRUPT TIME (MIN)	AVG INTERRUPT TIME (MIN)/CUST	AVG INTERRUPT TIME (MIN)/CUST SERVED	RELIABILITY INDEX	OVERHEAD OUTAGES /100 MI	UNDERGROUND OUTAGES /100 MI
OVERHEAD OUTAGES										
CURRENT PERIOD (03/96 THRU 02/97)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										
PREVIOUS PERIOD (03/95 THRU 02/96)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										
SIX-YEAR AVERAGE (03/91 THRU 02/97)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										
UNDERGROUND OUTAGES										
CURRENT PERIOD (03/96 THRU 02/97)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										
PREVIOUS PERIOD (03/95 THRU 02/96)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										
SIX-YEAR AVERAGE (03/91 THRU 02/97)										
EASTERN										
CENTRAL										
WESTERN										
COMPANY TOTAL										

27. Provide the annual results of any customer satisfaction surveys performed from 1992 - 1997 year to date.

Answer:

Listed below are the annual results of the customer satisfaction surveys performed from 1992 - 1997 year to date.

	1992	1993	1994	1995	1996	1997
--	------	------	------	------	------	------

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28. Provide a copy of policies, instructions, or procedures used by those administering the customer satisfaction surveys requested above.

Answer:

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ESQ-1 Item Number 26

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This document consists of pages 1 - 190. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

Florida Public Service Commission
Audit Document/Record Request
Request # ESQ-2 9/12/97

Question #2:

Provide a copy of the TQM Momentary Outage Study results and recommendations, and Gulf's executive management approval/disapproval response.

Answer:

The project statement for this team was to reduce transmission outages which affect Gulf Power Company customers. The plan of action of the study presented by the team on August 27, 1992, is shown on the attached survey sheet. The plan of action and recommendations were approved by Gulf's executives.

GULF POWER COMPANY

MOMENTARY OUTAGE REDUCTION TEAM (MORT)

Jim Parker - Team Leader
 David Arguelles
 Bob Barham
 Robert Forester
 Mike McNair
 Bill Pope
 Steve Richbourg
 Walter Mullins

AA

A

B

C

D

E

August 10, 1993

F

G

H

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J

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N

SOLUTION(S) SCHEDULE:

PLAN OF ACTION	SEPT. '92	OCT. '92	NOV. '92	DEC. '92	JAN. '93	FEB. '93	MAR. '93	APR. '93	MAY '93	JUNE '93	JULY '93	AUG. '93	SEPT. '93	FUTURE
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1														
2														
3														
4														
5														
6														

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Florida Public Service Commission
Audit Document/Record Request
Request # ESQ-2 9/12/97

Question #3:

Provide a copy of the TQM Sustained Outage Reduction study results and recommendations, and Gulf Power Company's executive management approval/disapproval response.

Answer:

The project statement for this team was to reduce distribution sustained outages to Gulf Power Company's customers. The plan of action of the study presented by the team on August 27, 1992 is shown on the attached summary sheet. The plan of action and recommendations were approved by Gulf's executives.

GULF POWELL COMPANY

SUSTAINED OUTAGE REDUCTION TEAM (SORT)

Alan McDaniel - Tes. Leader
 Bobby Hobbs - Asst. Leader
 Tom Kilgore - Quality Advisor
 Rex Brooks
 Clinton Cooper
 Richard Hough
 Scott Lee
 Mike Wernicke

SOLUTION(S) SCHEDULE:	August 10, 1993													
	SEPT. '92	OCT. '92	NOV. '92	DEC. '92	JAN. '93	FEB. '93	MAR. '93	APR. '93	MAY '93	JUNE '93	JULY '93	AUG. '93	SEPT. '93	FUTURE

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Florida Public Service Commission
Audit Document/Record Request
Request # ESQ-2 9/12/97

Question #4:

Provide a copy of the TQM Transmission Outage Reduction study results and recommendations, and Gulf Power Company's executive management approval/disapproval response.

Answer:

The project statement for this team was to reduce transmission outages which affect Gulf Power Company customers. The plan of action of the study presented by the team on August 27, 1992 is shown on the attached summary sheet. The plan of action and recommendations were approved by Gulf's executives.

GULF POWER COMPANY

TRANSMISSION OUTAGE REDUCTION TEAM (TORT)

Ken Sims - Team Leader
 Bobby Davis
 Bobby Jones
 Jerry Mitchem
 Frank Sarver
 Ernie Thomas
 Robert Wilkes
 Don Winter - Quality Advisor

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August 10, 1993

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SOLUTION(S) SCHEDULE:

[REDACTED]

PLAN OF ACTION	SEPT. '92	OCT. '92	NOV. '92	DEC. '92	JAN. '93	FEB. '93	MAR. '93	APR. '93	MAY '93	JUNE '93	JULY '93	AUG. '93	SEPT. '93	FUTURE
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ESQ-2 Item Number 7

Southern Company Substation Maintenance Study Volume I and II

These documents consists of Volume I, pages 1 - 221, and Volume II, pages 1 - 160. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

Florida Public Service Commission
Audit Document/Record Request
Request # ESQ-2 9/12/97

Question #28:

Provide a copy of the cost/benefit study for centralizing the Distribution Control Center.

Answer:

See Attached.

A

Annual Cost WORKSHEET

B

1	Total Hardware Investment	\$	[REDACTED]
2	Building Investment		[REDACTED]
3	Total Hardware/Building Invest.		[REDACTED]
		x	[REDACTED]
4	Annual Fixed Charge		[REDACTED]
5	Equipment Fixed Cost		[REDACTED]
6	Operational Expense (Non-Labor)		[REDACTED]
7	Maintenance Expense		[REDACTED]
8	Software & Hardware (Non-Labor)		[REDACTED]
9	Building Maintenance		[REDACTED]
10	Total Annual Cost		[REDACTED]
		.	[REDACTED]
		.	[REDACTED]
		.	[REDACTED]
11	ANNUAL SAVINGS		
12	Straight Time Hours (Line/Service)		[REDACTED]
13	[REDACTED]		[REDACTED]
14	Average O.T. (last 5 years)		[REDACTED]
15	[REDACTED]		[REDACTED]
16	Cost of O.T.		[REDACTED]
17	[REDACTED]		[REDACTED]
18	IF		[REDACTED]
19	[REDACTED]		[REDACTED]
20	[REDACTED]		[REDACTED]
21	THEN		[REDACTED]
22	Add annually to savings		[REDACTED]
23	Distribution Center Personnel Savings		[REDACTED]
24	=		[REDACTED]
25	=		[REDACTED]
26	Reduction of Forms/Paperwork Reproduction		[REDACTED]
27	TOTAL ANNUAL SAVINGS		[REDACTED]
28	TOTAL ANNUAL COST		[REDACTED]
29	TOTAL ANNUAL REDUCTION		[REDACTED]

DISTRIBUTION CONTROL CENTER

COMMITTEE REPORT

NOVEMBER, 1993

DRAFT₃

Distribution Control Center Committee

Mission

To evaluate the feasibility of a centralized Distribution Control Center and recommend a plan of action.

Committee Members

Bill Blackmon
James Philpot
Ernest Robinson

Gerald Miller
Marie McLean

Jack Davis
Jim Parker

Present Situation

Distribution Control Centers are presently handled independently by each division. There is a distribution control center in Pensacola, Ft. Walton, and Panama City. In order to evaluate the feasibility of a central operation, several operating companies were evaluated, several outside utilities were interviewed, and some control centers were visited.

Companies Evaluated by Interview

Alabama Power (Birmingham)
Alabama Power (Mobile)
Duke Power (North Carolina)
Entergy (Arkansas)
Entergy (Louisiana)
Entergy (Mississippi)
Georgia Power (Atlanta)
Mississippi (Gulfport)
Santee Cooper (South Carolina)
Florida Power Corporation
Florida Power and Light
Tampa Electric

Control Centers Visited

Alabama Power -- Montgomery
Alabama Power -- Mobile Division
Florida Power -- Suncoast Division
Tampa Electric

General Findings

Tampa Electric has a one building that has a distribution control center and transmission/generation control center. Emergency operations and engineering support are also housed in that building. The center had a outage analysis system and digital radio system but no electronic maps. They are planning to have mobile data terminals in 75 trucks by June 1994. Tampa operates another center in Winter Haven that closes in the evening.

Florida Power and Light operates four centers. They had an outage analysis system, digital radio system, and mobile data terminals in their trouble trucks. The electronic map system was only detailed enough to show large sections of town without street identification.

Alabama Power operates three centers located in Mobile, Montgomery, and Birmingham. The Mobile Division handles 165,000 calls during the day. In the evening the center handles the outlying districts bring their total number of customers handled to 200,000. This division covers about 4440 square miles.

Georgia Power has eight divisions. Within the division, each district takes care of their own operations. East Metro and West Metro Division have combined two districts into one "super district" that handles about 100,000 customers during the day and 900,000 customers at night.

In summary, most companies operated a distribution control center that would handle 100,000 to 900,000. For larger companies, this means that they operated several control centers, depending on their total number of customers, districts, or divisions. Most companies had an outage analysis system and a company-wide radio system.

Centralized Distribution Control Center
Ideal Design

1 [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

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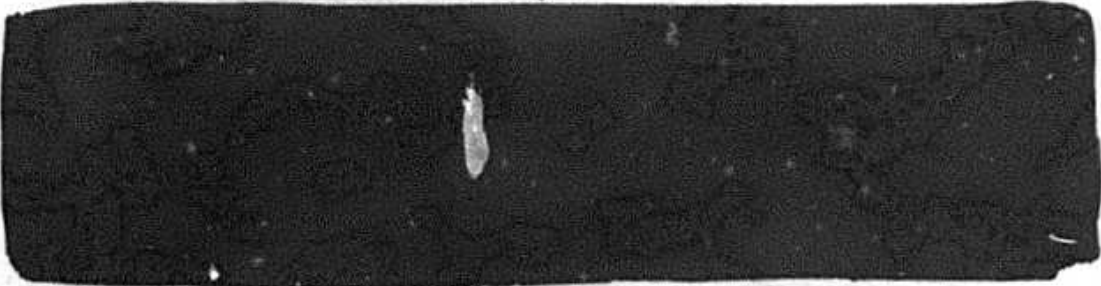
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Distribution Control Center Development Plan



Task

Priority Installation Operational

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

STAFFING REQUIREMENTS (PROPOSED) CENTRALIZED

POSITION	WEEKDAYS	WEEKEND	TOTAL REQUIRED
CONFIDENTIAL			

DOCC2.CHT

DISTRIBUTION CONTROL CENTER

SURVEYS

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES: _____

SURVEY2

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEY3

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEY4

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



CONFIDENTIAL

NOTES:

SURVEYS

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEY6

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEY7

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEY8

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

NOTES:

SURVEYS

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

SURVEY10

COMPANY NAME:
COMPANY CONTACT:
TELEPHONE #:



QUESTIONS:

CONFIDENTIAL

SURVEY11

CONFIDENTIAL

ESO-3 Item Number 1 (attachment 1a)
1996 Residential Satisfaction Benchmark Survey

This document consists of pages 1 - 8. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

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ESQ-3 Item Number 1 (attachment 2b)
1996 Commercial and Industrial Satisfaction Benchmark Survey

This document consists of pages 1 - 6. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

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ESQ-3 Item Number 2 (attachment 2a)
1997 Residential Satisfaction Benchmark Survey

This document consists of pages 1 - 8. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

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ESO-3 Item Number 2 (attachment 1b)
1997 Commercial and Industrial Satisfaction Benchmark Survey

This document consists of pages 1 - 6. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

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ESQ-3 Item Number 1 (attachment 5)
1996 System Benchmark Survey: Gulf Power

This document consists of pages 1 - 50. Each page in its entirety is confidential, including all tables, graphs and accompanying text.

1992 Gallup Benchmark Studies
Residential Customers
Percent Very Satisfied

ESQ-5
Item 1
Page 1 of 3

92 Rank	91 Rank	Company Name	91 Gallup 6 point	92 Gallup 6 point	92 Gallup 4 point	92 SC 4 point
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**1992 Gallup Benchmark Studies
Large Industrial Customers
Percent Very Satisfied**

ESQ-5
Item 1
Page 2 of 3

92 Rank	Company Name	92 Gallup 6 point	92 Gallup 4 point
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Note - Some companies were omitted due to very small sample sizes.

1992 Gallup Benchmark Studies
Commercial and Industrial Customers
Percent Very Satisfied

ESA-5
Item 1
Page 3 of 3

92 Rank	Company Name	92 Gallup 6 point	92 Gallup 4 point	92 SC 4 point

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Staff Work Papers

- a worst feeders program to work on momentaries from the worst feeders and substations.
6. Distribution has more recently completed studies that allowed downsizing of construction crews from 3 to 2 man crews and maintenance crews from 2 to 1 troubleman crews. They took off the apprentice person and added trucks to create smaller crews. This provides Gulf with more productive, smaller crews and requires them to go fewer miles to get to the work. It also allows them greater flexibility in moving the proper number of small crews to other higher work areas when needed. Gulf has also staggered work schedules Gulf was able to downsize between 82-85 Full Time-Equivalent employees. Gulf eliminated contractors and began using company employees to replace certain types of work done by contractors.
 7. Most downsizing occurred in middle management and supervision, creating a wider span for upper management. Functionalizing allows Gulf to respond more promptly to the customer because resources are not limited by geographical boundaries. Outages have also been smaller and more isolated.
 8. For the last 12-18 months GPC has been using duct for underground cable, and has given developers options in placing underground cable, and placing duct with other utilities. GPC has discounted or deferred installation to decrease the cost of duct installation for developers. GPC pulls the cable when the developer is ready to serve homes in the development. This reduces number of cable cuts and UG outages in new developments. GPC has also begun identifying underground cables with >3 outages. These UG cables are targeted for replacement, or injection to prolong the life of the cable. GPC has experienced a reduction in UG outages, in pilot locations, due to

5. As a result of the TQM teams approximately 5 years ago Gulf began reducing small wire (#6) as an attempt to reduce outages. They also recognized that tree trimming needed additional budget dollars and have provided additional dollars to increase the program. Steve Burns, Line Clearing Supervisor, has put together programs to address tree related outages. EPRI testing of cable injection over the last 2-3 years has helped improve underground outage results.
6. Distribution has more recently completed studies that allowed downsizing of construction crews from 3 to 2 man crews and maintenance crews from 2 to 1 trouble man crews. They took off the apprentice person and added trucks to create smaller crews. This provides Gulf with more productive, smaller crews and requires them to go fewer miles to get to the work. Gulf has also staggered work schedules Gulf was able to downsize between 82-85 Full Time Equivalent employees. Gulf eliminated contractors and began using company employees to replace certain types of work done by contractors.
7. Most downsizing occurred in middle management and supervision, creating a wider span for upper management. Functionalizing allows Gulf to respond more promptly to the customer because resources are not limited by geographical boundaries.
8. For the last 12-18 months GPC has been using duct for underground cable, and has given developers options in placing underground cable, and placing duct with other utilities. This reduces number of cable cuts and UG outages in new developments. GPC has also begun identifying underground cables with >3 outages. These UG cables are targeted for replacement, or injection to prolong the life of the cable.
9. Gulf centralized their control center 3 years ago (1994) from three division operations to one located in Pensacola. Greatest benefits are a reduction in personal needed to perform the function and a company wide standard methodology for distribution dispatch.
10. For damage claims against GPC, anything > \$5,000, has attorney involvement, or has personal liability is referred to the Claim Administrator. (Employee Relations and Risk Manager) Agent in the field can cut a check for other claims < \$5,000.

(2) INTERVIEW SUMMARY:

1. Approximately 2-2.5 yrs. ago brought tree-trimming under 1 person. Prior to that tree trimming was managed at the division/district with guidelines from management. There was not consistency between divisions and districts company-wide. Final call was made by the division or district, not corporate. Responsible for all Transmission, Substation and Distribution Vegetation Management. If any trees are located around a substation, or possibly endanger customers or employees, they are removed. Also is responsible for assisting with any land management special projects related to forestry. An example is the old sod farm was converted to a tree farm, which required Steve's involvement.
2. Measurement used to examine performance include: 1) tree trimming cost/mile 2) 6 yr. average for tree caused outages (DTR) and 3) customer satisfaction survey results.
3. Since re-organization approximately 2-2.5 yrs ago emphasis has been more consistency in the tree trimming effort. In 1996 began to address policies and measurements changes for tree trimming. Costs are better measured now because the costs are based on circuit trimming. A report is issued for each circuit for costs. Wants to be able to re-examine the cost per circuit. Must balance the three to get best results (policies, measurements and costs per circuit).
4. In 1997 re-negotiated the trimming contract. Had routinely re-bid contract and had some of the lowest rates, but the contractor could not maintain quality people. Negotiated with the contractor and gave them additional money and some equipment. 
5. The Distribution Line Clearing System (DLCS)(NOMAD data base) is old and outdated. The Tree Reverse Invoice Management System (TRIMS) is not yet on-line. TRIMS will download data to Accounts Payable and automate the whole tree trimming process. It can give a cost by circuit, activity type, and many others. Will bring on by the end of the year.
6. Based on customer calls, engineering concerns or the DTR, a report is generated that ranks circuits by outages and minutes of customer interruption. An engineering assistant will ride the circuits identified and determine what work needs to be done. This information feeds to the budget and Steve submits a budget request based on estimated costs of spot trim work and completing a trim cycle of 3-4 years. Budget dollars are received and appropriated based on the customers, engineering and districts priorities. Maintains a presence throughout the company. Considering cost per tree as a productivity/cost measurement.
7. Quality of work is monitored by the Engineering Rep w/the contractor Supervisor after a circuit is completed. Most common difficulty is having to remind people that there is more to tree trimming than simply cost/mile.

(Attach Extension Sheets as Required)

(Continued on reverse)

(3) CONCLUSIONS:

1. Approximately 2-2.5 yrs. ago brought tree-trimming under 1 person. Prior to that tree trimming was managed at the division/district with guidance from corporate. There was no consistency between divisions and districts company-wide. Responsible for all Transmission, Substation and Distribution Vegetation Management.
2. Measurement used to examine performance include: 1) tree trimming cost/mile 2) 6 yr. average for tree caused outages (DTR) and 3) customer satisfaction survey results.
3. Since re-organization approximately 2-2.5 yrs ago emphasis has been more consistency in the tree trimming effort. In 1996 began to address policies and measurements changes for tree trimming. Costs are better measured now because the costs are based on circuit trimming. A report is issued for each circuit for costs. Wants to be able to re-examine the cost per circuit.
4. In 1997 re-negotiated the trimming contract. Had routinely re-bid contract and had some of the lowest rates, but the contractor could not maintain quality people. Negotiated with the contractor and gave them additional money and some equipment. [REDACTED]
5. Based on customer calls, engineering concerns or the DTR, a report is generated that ranks circuits by outages and minutes of customer interruption. Budget dollars are received and appropriated based on the customers, engineering and districts priorities. Maintains a presence throughout the company. Considering cost per tree as a productivity/cost measurement.
6. Quality of work is monitored by the Engineering Rep w/the contractor Supervisor after a circuit is completed.

(4) DATA REQUEST(S) GENERATED:

(5) FOLLOW-UP REQUIRED:

Reviewed By: _____

Project Manager


4. Jim Parker is doing a trial this fall for a home operated devise to recognize momentaries.
5. The DTR report was not set up to track customer minutes of interruption. It measures outage until the last customer is restored to service. The operator measures the outage by current on the system. Fluctuations indicate opens and closes. The DCC is responsible for calculating customer minutes of outages. Trouble Call Analysis (TCA) has been running parallel to the manual system of trouble reporting. Have used TCA since June 97.
6. One man crews do the inspections and records are maintained by the E&C Supervisor.
7. The budget committee consists of the 3 Power Delivery Managers, the Distribution Manager and Tom Scarborough from Finance.
8. Venture Out was a cable injection pilot located in Panama City.
9. By end of 97 will pilot ARMS in Pensacola and do the rest of Gulf in 1998.
10. Service employees have two shifts, 7am-2:30pm and 2:00PM-10:30pm. Linemen and Transmission work 4 days/week. Pensacola works the Central Transmission & Substation maintenance. Panama City does substation construction work. PC does line work.
11. The # of trouble tickets/feeder & breaker operations were used to identify worst feeders and put weighting factors on them. Probably still doing the top 20-30 feeders (unsure)? Molino is a sparse feeder that covers a large area which should be improved in 1997.

(Continued on reverse)

(Attach Extension Sheets as Required)

60

(3) CONCLUSIONS:

1. The Pensacola area is different than the other areas because the system is older and has more small wire. Probably half of Pensacola customers are residential. In 1990, Pensacola outage was at about 80 minutes and other areas were at 40 or so. We are concentrating on not locking down the main feeder. Since 1990, have concentrated on sectionalizing main line feeders in Pensacola. This reduces the number of customers affected by an outage. Started an aluminum pole treatment program in 1990-91 and are finishing it up this year (3/4 through). We have commitment to start again in 1998 and finish treating poles w/CCA (Chromium Arsenic). Will do 20,000 poles a yr. in '98 and have all complete w/in 3-4 years (300,000 total). Have a 25% rejection rate for poles. Pensacola still has quite a bit of #3 and #6 copper wire in service. Back in the 50's aluminum was introduced and began taking over for copper. Pensacola has approximately 7500 miles of distribution line in the district. About 300-400 miles of it are #6 copper.
2. TQM teams, in 1994, began moving the company away from wooden pole arms and porcelain insulators near beaches Sustained Outage Reduction Team (SORT).
3. 
4. Jim Parker is doing a trial this fall for a home operated device to recognize momentaries.
5. One man crews do the inspections and records are maintained by the E&C Supervisor.
6. Service employees have two shifts, 7am-2:30pm and 2:00PM-10:30pm. Linemen and Transmission work 4 days/week. Pensacola works the Central Transmission & Substation maintenance. Panama City does substation construction work. PC does line work.
7. The # of trouble tickets/feeder & breaker operations were used to identify worst feeders and put weighting factors on them. Probably still doing the top 20-30 feeders (unsure)? Molino is a sparse feeder that covers a large area which should be improved in 1997.

(4) DATA REQUEST(S) GENERATED:

(5) FOLLOW-UP REQUIRED:

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(2) INTERVIEW SUMMARY:

1. Responsible for the support of TCMS, ARMS, JETS, GAMMA, EMS and metering programs, re-design of mapping system, and PC version of system maps on the Internet. The Metering Engineer attends Southern system meetings and other seminars, etc. related to metering improvements. Metering in Fort Walton & Panama City report to the Power Delivery Manager in those areas. Many metering studies from GPC and Southern Company have been conducted. Currently reviewing the metering organization. Now it is a mixed bag, and some streamlining will probably occur.
2. The Power Quality group was started in late 1989, as the company was struggling with whether or not to get into power quality. The Power Quality Group is more directed to providing good service to the I/C customers. The group often recommends what the customer should use to keep power problems from recurring. They work with the customer in solving behind the meter problems affecting power quality. They act as a customer advocate in determining the causes and solutions for PQ problems and getting Gulf to assist with needed system changes that may improve the quality of service to the I/C customer.
3. In 1989 Jim watched trouble tickets being sorted manually. GPC began visiting other companies and what they were doing with automation of trouble tickets. In 1993 Southern began a system-wide team to address trouble reporting mechanization. Alabama and Gulf were the test sites for the Southern system. The 2nd qtr. 95 Gulf began using the new Trouble Call Management System (TCMS). Tickets come in from the customer information system and the Integrated Voice-Recording (IVR) unit. The IVR was originally used as an overflow for representatives in the customer call center. The IVR emulates a terminal, and based on input from the customer, it now identifies the customer, type of trouble and generates a repair ticket from the Customer Accounting system (CICS/GOLS). In 1995, developed a way to have IVR call the customer back, after ticket was worked, to verify lights back on. Did not have this feature during the two hurricanes of 1995. From the Transformer Load System the TLN was downloaded to TCMS and cross-referenced with the customer account number to identify customers affected by outages. Operators are not currently using the system to the fullest because all areas are not energized at this time. The system will locate the problem in TCMS, but will not predict the outage type. By the end of 1997 operators should have full utilization of the system. For measuring outages GPC will not be moving from the operator manual entry yet (the system will eventually calculate the outage length, number of customers affected, location and cause type of outage. Currently use field estimate, actual check and feeder count information to extrapolate number of customers affected by an outage. The system will also allow measurement to the meter when fully implemented. In December 1997 and June 1998 two release versions will provide replacement, or feed from DTR for time measurement. This should provide better accuracy of the number of customers and minutes of outage. DTR also has historical data. A system interface may be developed between both systems, the systems may remain separate or the DTR may be discarded. In 1995, had 17,000 mistakes in system location data. Have worked that down to 2,000-3,000 now. This too will be corrected prior to final implementation.

(3) CONCLUSIONS:

1. Responsible for the support of TCMS, ARMS, JETS, GAMMA, EMS and metering programs, re-design of mapping system, and PC version of system maps on the Internet. Metering in Fort Walton & Panama City report to the Power Delivery Manager in those areas. Currently reviewing the metering organization. now it is a mixed bag, and some streamlining will probably occur.
2. The Power Quality group was started in late 1989. They act as a customer advocate in determining the causes and solutions for PQ problems and getting Gulf to assist with needed system changes that may improve the quality of service to the I/C customer.
3. ~~They act as a customer advocate in determining the causes and solutions for PQ problems and getting Gulf to assist with needed system changes that may improve the quality of service to the I/C customer.~~ The IVR was originally used as a simulation the representation in the operations center. The IVR emulates a terminal, and based on input from the customer, it now identifies the customer, type of trouble and generates a repair ticket from the Customer Accounting system (CICS/GOLS). In 1995, developed a way to have IVR call the customer back, after ticket was worked, to verify lights back on. Operators are not currently using the system to the fullest because all areas are not energized at this time. The system will locate the problem in TCMS, but will not predict the outage type. By the end of 1997 operators should have full utilization of the system. For measuring outages GPC will not be moving from the operator manual entry yet (the system will eventually calculate the outage length, number of customers affected, location and cause type of outage. Currently use field estimate, actual check and feeder count information to extrapolate number of customers affected by an outage. The system will also allow measurement to the meter when fully implemented. In December 1997 and June 1998 two release versions will provide replacement, or feed from DTR for time measurement. This should provide better accuracy of the number of customers and minutes of outage.
4. [REDACTED]
5. ARMS will allow orders to the truck and provide mapping to assist in completing the work. GPC is emphasizing new service and other orders, not repair work, initially. Repair orders later.

(Attach Extension Sheets as Required)

(Continued on reverse)

(4) DATA REQUEST(S) GENERATED:

(5) FOLLOW-UP REQUIRED:

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