



Public Service Commission  
-M-E-M-O-R-A-N-D-U-M-

**DATE:** June 5, 2001  
**TO:** Blanca Bayo, Director, Division of Records & Reporting  
**FROM:** Joseph Jenkins, Director, Division of Safety & Electric Reliability JJJ  
**RE:** Request for the Distribution System Service Reliability Reports added to Case Management accessible through the internet

Please add the following investor-owned service reliability reports to Case Management to be accessed through the Internet. We would like them grouped into separate years. If you have questions, please let me know. Thanks.

Utility	Data Year	Year Filed (Docket Year)	Document Number
FPC	1997	1998	None
FPL	1997	1998	None
GULF	1997	1998	None
TECO	1997	1998	02666
FPUC	1997	1998	None
FPC	1998	1999	02601
FPL	1998	1999	None
GULF	1998	1999	None
TECO	1998	1999	02386
FPUC	1998	1999	None
FPC	1999	2000	02716
FPL	1999	2000	None
GULF	1999	2000	None
TECO	1999	2000	02593
FPUC	1999	2000	None
FPC	2000	2001	02782
FPL	2000	2001	02809
GULF	2000	2001	None
TECO	2000	2001	02781
FPUC	2000	2001	None

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DOCUMENT NUMBER DATE

07073 JUN-6 2001



1997

March 11, 1998

MAR 11 2

**HAND DELIVERY**

Mr. Joseph Jenkins  
Director  
Division of Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399

Dear Mr. Jenkins:

Please find attached the Distribution System Service Reliability report for Florida Power Corporation submitted in compliance with Rule 25-6.0455. Please excuse the delay in filing this information. Those preparing this report mistakenly thought the new report requested of FPC to be filed March 20 was a substitute for this report.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "James F. Stanfield".

James F. Stanfield  
PSC Liaison

JFS/th

Attachment

FLORIDA POWER CORPORATION  
 INTERRUPTIONS AND AVERAGE DURATION BY CAUSE  
 01/01/97 TO 12/31/97

RUN DATE: 02/19/98

CAUSE	OVERHEAD		UNDERGROUND		UNDETERMINED CLASSIFICATION *	
	INTERRUPTIONS	AVERAGE DURATION	INTERRUPTIONS	AVERAGE DURATION	INTERRUPTIONS	AVERAGE DURATION
ANIMAL					7955	64
DIG-IN			553	114		
LIGHTNING					3922	134
MISCELLANEOUS					276	87
TRANSFORMER					2901	161
TREE/LIMB	5811	104				
UNKNOWN					4514	79
VEHICLE					325	124
OTHER: CONNECTOR FAIL					1551	80
CONSTRUCTION EQP					65	92
DEFECTIVE EQUIP					1882	105
EMERG SHUTDOWN					42	36
HUMAN ERR FPC					564	58
HUMAN ERR PUBLIC					559	93
OH SEC/SERVICE	654	113				
RIGHT OF WAY					23	15
STORM/WIND	4231	121				
UG PRIMARY CABLE			2681	141		
UG SEC/SERVICE			2872	146		
TOTAL	10696	111	6106	141	24579	95
ALL CLASSES	41381	106				

\* NO OVERHEAD/UNDERGROUND CLASSIFICATION IS MADE ON THESE CAUSES

FLORIDA POWER CORPORATION  
 THREE PERCENT OF FEEDERS WITH HIGHEST INTERRUPTIONS  
 01/01/97 TO 12/31/97

RUN DATE: 02/19/98

FEEDER	SUBSTATION	AREA SERVED	NUMBER INTERRUP	AVG DURATION	RES CUST	COMM CUST	IND CUST	S/L CUST	GOVT CUST
W0174	OVIEDO	OVIEDO	5	107	1558	214			10
K966	INTERCESSION CITY	INTERCESSION CITY	5	73	456	41		1	3
W0805	DELAND	DELAND	5	65	1142	181	2		17
X215	PASADENA	ST PETERSBURG	5	51	535	241	1		13
K3221	DESOTO CITY	DESOTO CITY	5	32	178	44			1
K51	HUNTERS CREEK	HUNTERS CREEK	5	27	2192	104			13
N195	JENNINGS	JENNINGS	4	96	356	90			27
M101	WEKIVA	ALTAMONTE SPGS	4	88	389	11			
A196	ARCHER	ARCHER	4	70	600	140	3		63
K246	WAUCHULA	WAUCHULA	4	55	1032	138			23
W0367	SKY LAKE	WINTER PARK	4	51	2	93	2		8
A34	REDDICK	REDDICK	4	50	1150	217	6		14
N58	APALACHICOLA	APALACHICOLA	4	46	523	178	20		52
A2	BELLEVIEW	BELLEVIEW	4	41	1515	294	4		37
M657	MYRTLE LAKE	MYRTLE LAKE	4	34	1014	88			2
W0014	WINTER PARK	WINTER PARK	4	33	567	60			16
K1028	TAFT	TAFT	4	32	561	360	2		24
W0158	LAKE ALOMA	WINTER PARK	4	32	2001	65			25
W0087	MAITLAND	MAITLAND	4	17	1669	310			60
K17	HAINES CITY	HAINES CITY	3	412	1138	175	1		59
W0025	CASSELBERRY	CASSELBERRY	3	295	1900	158			28
W0524	CASSADAGA	CASSADAGA	3	153	687	82	2		17
A35	REDDICK	REDDICK	3	138	202	77			
M1709	DOUGLAS AVE	ALTAMONTE SPGS	3	128	109	191			15
N332	ST MARKS	ST MARKS	3	121	960	125	2		41
W1701	LAKE HELEN	LAKE HELEN	3	140	781	58			15

FLORIDA POWER CORPORATION  
THREE PERCENT OF FEEDERS WITH HIGHEST INTERRUPTIONS  
01/01/97 TO 12/31/97

RUN DATE: 02/19/98

FEEDER	SUBSTATION	AREA SERVED	NUMBER INTERRUP	AVG DURATION	RES CUST	COMM CUST	IND CUST	S/L CUST	GOVT CUST
W0003	WINTER PARK	WINTER PARK	3	119	641	165	6		18
A50	MCINTOSH	MCINTOSH	3	113	650	109			14
X99	BAYWAY	ST PETERSBURG	3	93	2052	104	3		20
X289	NORTHEAST	ST PETERSBURG	3	90	719	139	6		10



1997

February 27, 1998

Mr. Joseph D. Jenkins  
Florida Public Service Commission  
Director, Division of Electric & Gas  
2540 Shumard Oak Boulevard  
Tallahassee, Fl. 32399-0850

MAR 2 1998

Dear Mr. Jenkins,

Enclosed are the original and five copies of Florida Power & Light Company's (FPL's) Annual Distribution Service Reliability Report for calendar year 1997.

Pursuant to Rule 25-6.0455, the first page identifies FPL's total number of interruptions (N) by cause code and the system average length of these interruptions (L-Bar). The second and third pages identify the three percent of FPL's feeders with the highest number of feeder breaker interruptions with their associated N, L-Bar and customers affected.

All feeders appearing on the list of the three percent with the highest number of interruptions have specific countermeasures in place to improve their performance. These countermeasures include the efforts of the 1997 Tactical Teams and the 1998 Reliability 2000 Plan, as referred to in the FPSC "Review of Electric Service Quality and Reliability" document, pages 52-53. The results of the improvements on each of these feeders will be monitored monthly through an on-line database.

The problem feeders addressed by the 1997 Tactical Teams were visually inspected to identify problems and the causes of interruptions were analyzed. Based on this analysis, corrective actions were taken during the latter part of the year. These actions typically involved improving lightning protection, repair and replacement of deteriorated facilities and tree trimming. During 1998, FPL is undertaking projects addressing feeders with high interruption levels (Outlier Feeder Program and Momentary Interruption Project). Corrective measures for feeders identified by these programs are scheduled to be completed by June 1, 1998. In addition, each feeder on the list will have a thermovision inspection to identify potential causes of outages that are not apparent by visual inspection. Identified problems will be corrected.

If you have any questions, please do not hesitate to contact me at (305) 552-3643.

Sincerely,

  
for Samuel S. Waters  
Director, Regulatory Affairs

**Number Of Interruptions by Cause Codes  
January 1, 1997 through December 31, 1997**

FPL

FPL ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
PERIOD: JANUARY 1, 1997 THRU DECEMBER 31, 1997

**RULE 25-6.0455 (a) NUMBER OF SERVICE INTERRUPTIONS BY CAUSE CODE**

CAUSE CODE	DESCRIPTION	N			
		OH	UG	TOTAL	
1	Lightning	14087	1302	15389	Experienced a 16% increase in lightning strokes over 1996. 1998 lightning protection program to improve performance on highly impacted feeders. Lightning protection standards are being reevaluated.
2	Tree	11699	387	12086	Funding increases for years 1998-2000 is targeted at achieving a 3 year average trim cycle per feeder.
3	Animal	8349	744	9093	Increased tree trimming will reduce exposure to animals.
4	Vehicle	941	136	1077	
5	Dig-In	0	742	742	
6	Substation	234	0	234	
7	Transformer	111	61	172	
8	Salt Spray	374	38	412	
9	Corrosion	974	315	1289	
10	Other	6885	2805	9690	
11	Unknown	31667	14678	46345	
<b>TOTAL</b>		<b>75321</b>	<b>21208</b>	<b>96529</b>	
<b>L-BAR</b>		<b>151</b>	<b>213</b>	<b>165</b>	Although interruptions were up by 7% over 1996, L-Bar was maintained at the same level by revising the feeder restoration process and applying additional restoration resources.

N = NUMBER OF SERVICE INTERRUPTIONS.  
L-BAR = AVERAGE LENGTH OF A SERVICE INTERRUPTION  
OF THE LAST CUSTOMER RESTORED (minutes).

FPL

**3% Worst Performing Feeders**  
**January 1, 1997 Thru December 31, 1997**

FPL ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT									
PERIOD: JANUARY 1, 1997 THRU DECEMBER 31, 1997									
RULE 25-6.0455 (b) THREE PERCENT OF THE FEEDERS WITH THE HIGHEST FEEDER BREAKER SERVICE INTERRUPTIONS									
			CUSTOMERS						
FEEDER	SUBSTATION	ADDRESS	RES	COM	IND	TOTAL	N	LBAR	COUNTERMEASURES
8000232	MIAMI BEACH	MCARTHUR CAUSEWAY, MIAMI BEACH	2344	234	0	2578	10	107	'98 Outlier Feeder & Thermovision Programs
4007561	GLENDALE SUB	1/2 MI W/O I-95 N/S OF SR 60, STUART	2104	264	0	2368	9	322	'97 Tactical Team & '98 Thermovision Programs
2000533	MELBOURNE	OSCEOLA AVE & PALM AVE, MELBOURNE	967	252	0	1219	9	148	'98 Outlier Feeder & Thermovision Programs
8000237	MIAMI BEACH	MCARTHUR CAUSEWAY, MIAMI BEACH	823	30	0	853	9	115	'97 Tactical Team & '98 Thermovision Programs
4004137	GOLF	GOLF RD & SEABOARD RWY, BOYNTON	2368	212	0	2580	9	61	'98 Outlier Feeder & Thermovision Programs
4005465	CLINTMOORE	CLINTMOORE RD. W/O MILITARY TRAIL, BOCA RATON	2669	370	0	3039	8	183	'97 Tactical Team & '98 Thermovision Programs
8006435	HAINLIN	SW 147 AVE & 216 ST, MIAMI	2338	154	0	2492	8	166	'98 Outlier Feeder & Thermovision Programs
8010162	SEAGULL	11120 NW 50 ST, SEAGULL, MIAMI	146	419	5	570	8	121	'97 Tactical Team & '98 Thermovision Programs
8000938	40TH STREET	4008 SHERIDAN AVE, MIAMI BEACH	871	84	0	955	8	119	'98 Outlier Feeder & Thermovision Programs
4005262	ACME	ACME RD. E/O WELLINGTON RD, WEST PALM BEACH	3225	331	0	3556	8	74	'97 Tactical Team & '98 Thermovision Programs
4001932	LINTON	NE 3 AVE & 1 ST, DELRAY BEACH	1828	164	0	1992	7	212	'98 Outlier Feeder & Thermovision Programs
8007734	LEMON CITY	7645 NE 3 PLACE, MIAMI	1156	315	0	1471	7	161	'98 Outlier Feeder & Thermovision Programs
5005862	BUCKEYE	US41 - BUCKEYE ROAD	1825	148	0	1973	7	113	'97 Tactical Team & '98 Thermovision Programs
8007164	PENNSUCO	10800 NW 107 AVE, MIAMI	1157	249	2	1408	7	85	'97 Tactical Team & '98 Thermovision Programs
7004064	MOTOROLA	7641 W SUNRISE BLVD, FT LAUDERDALE	3525	166	0	3691	7	57	'98 Outlier Feeder & Thermovision Programs
4006934	DELMAR	22950 POWER LINE ROAD, BOCA RATON	663	117	0	780	7	48	'98 Outlier Feeder & Thermovision Programs
2002631	HOLLAND PARK	S/O MELBOURNE BEACH, NEAR A1A	2210	82	0	2292	6	363	'98 Outlier Feeder & Thermovision Programs
8007735	LEMON CITY	7645 NE 3 PLACE, MIAMI	1089	317	0	1406	6	188	'98 Outlier Feeder & Thermovision Programs
4003931	LAKE PARK	2 ST & PALMETTO RD, LAKE PARK	1767	109	0	1876	6	179	'98 Multiple Interruption & Thermovision Programs
2002235	MIMS	SR 46 W/O US 1, MIMS	1322	60	0	1382	6	152	'98 Multiple Interruption & Thermovision Programs
8002235	GLADEVIEW	2401 NW 68 ST, MIAMI	3894	296	2	4192	6	141	'98 Outlier Feeder & Thermovision Programs
7004062	MOTOROLA	7641 W SUNRISE BLVD, FT LAUDERDALE	2918	201	3	3122	6	138	'98 Outlier Feeder & Thermovision Programs
7000642	VERENA	1401 NE FLAGLER DR, FT LAUDERDALE	1768	126	0	1894	6	116	'98 Multiple Interruption & Thermovision Programs
7000639	VERENA	1401 NE FLAGLER DR, FT LAUDERDALE	1527	125	0	1652	6	113	'98 Outlier Feeder & Thermovision Programs
2003031	FRONTENAC	US 1 ON CLEARVIEW DR, COCOA	1779	131	0	1910	6	111	'98 Outlier Feeder & Thermovision Programs
8002236	GLADEVIEW	2401 NW 68 ST, MIAMI	2784	205	0	2989	6	111	'98 Outlier Feeder & Thermovision Programs
7004761	STONEBRIDGE	FLAMINGO RD & SW 66 ST, COOPER CITY	1449	64	0	1513	6	109	'98 Outlier Feeder & Thermovision Programs
4005266	ACME	ACME RD. E/O WELLINGTON RD, WEST PALM BEACH	2230	245	3	2478	6	100	'98 Momentary Interr. & Thermovision Programs
7001234	PLAYLAND	4750 SW 42 AVE, FT LAUDERDALE	2215	247	0	2462	6	90	'98 Lightning Protection & Thermovision Programs
4003134	RIVIERA	US 1, RIVIERA BEACH	1830	410	0	2240	6	87	'97 Tactical Team & '98 Thermovision Programs
8009133	TAMIAMI	4260 SW 8 ST, MIAMI	1261	125	0	1386	6	82	'98 Outlier Feeder & Thermovision Programs
4003933	LAKE PARK	2 ST & PALMETTO RD, LAKE PARK	2611	261	0	2872	6	80	'98 Outlier Feeder & Thermovision Programs
2002031	INDIAN HARBOR	S PATRICK DR, EAU GALLIE BLVD	1191	128	0	1319	6	75	'98 Outlier Feeder & Thermovision Programs
8008731	BOULEVARD	11130 NE 14 AVE, MIAMI	1637	83	0	1720	6	70	'98 Momentary Interr. & Thermovision Programs
7006064	HIATUS	11100 W. SUNRISE BLVD., FT LAUDERDALE	2923	125	1	3049	6	63	'98 Outlier Feeder & Thermovision Programs
8007962	MIAMI LAKES	14501 NW 77 AVE, MIAMI	4165	634	1	4800	6	62	'98 Momentary Interr. & Thermovision Programs



One Energy Place  
Pensacola, Florida 32520

Tel 850 444.6000



23

1997

February 20, 1998

Mr. Joseph Jenkins, Director  
Division of Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0868

Dear Mr. Jenkins:

Attached is Gulf Power Company's Annual Distribution Service Reliability Report as required by Rule 25-6.0455.

Sincerely,

Susan D. Cranmer  
Assistant Secretary and Assistant Treasurer

lw

Attachment

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1997**

1) TOTAL NUMBER OF SERVICE INTERRUPTIONS (N) = 7,201

2) NUMBER OF OUTAGES CATEGORIZED BY CAUSE:

CAUSE *	OVERHEAD	UNDERGROUND
TREE	432	-
WIND	102	-
LIGHTNING	1,466	38
VEHICLE	191	12
ANIMAL	3,088	-
DETERIORATION	468	89
CONTAMINATION	61	8
OVERLOAD	116	12
LOOSE CONNECTION	31	2
VANDALISM	6	0
DIG-IN	-	38
OTHER	1,007	34

\* TRANSFORMER FAILURE IS REPORTED AS A FAILED DEVICE, NOT AS A CAUSE. IN ANY EVENT, IN 1997 WE HAD 303 OVERHEAD TRANSFORMER FAILURES AND 20 UNDERGROUND TRANSFORMER FAILURES FROM VARIOUS CAUSES.

3) AVERAGE LENGTH OF SERVICE INTERRUPTIONS (L-BAR) = 77.46 MIN.

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1997**

4) The 3% of the utility's feeders with the highest number of feeder breaker interruptions.

FDR. NO.	SUBSTATION	GENERAL LOCATION	NO. OF CUSTOMERS			N	L-BAR
			RES.	COMM.	OTH.		
8572	PARKER	CALLAWAY AREA PANAMA CITY, FL	2,783	272	0	3	87.67
6022	BEACH HAVEN	LILLIAN HWY PENSACOLA, FL	1,741	179	1	2	154.50
6042	BEACH HAVEN	WARRINGTON AREA PENSACOLA, FL	1,928	180	0	3	69.67
7682	GOULDING	SCENIC HWY AREA PENSACOLA, FL	2,082	80	0	2	103.50
6532	BAYOU CHICO	PACE BLVD AREA NO. 2 PENSACOLA, FL	1,751	257	1	1	187.00
6652	GOULDING	BARRS ST AREA PENSACOLA, FL	2,216	138	0	1	169.00
9582	DESTIN	WEST HWY 98 DESTIN, FL	1,195	636	0	2	44.00
8892	MIRAMAR	EAST 98 DESTIN, FL	2,117	252	0	1	73.00
7362	INNERARITY	PERDIDO KEY WEST PENSACOLA, FL	2,292	117	0	1	105.00
9812	SHOAL RIVER	SHOAL RIVER AREA CRESTVIEW, FL	696	106	0	1	82.00

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1997**

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**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1997**

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9812	SHOAL RIVER	SHOAL RIVER AREA CRESTVIEW, FL	696	106	0	1	82.00

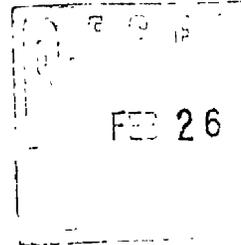
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TAMPA ELECTRIC 1997

February 25, 1998

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

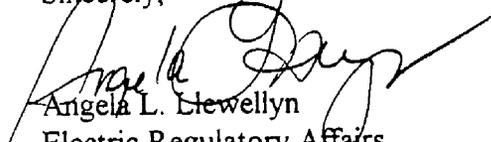


Dear Ms. Bayo:

Pursuant to Florida Administrative Code Rule 25-6.0455, we enclose the original and 15 copies of Tampa Electric's 1997 Distribution Service Reliability Report.

If I can be of any further assistance in this matter, please let me know.

Sincerely,

  
Angela L. Llewellyn  
Electric Regulatory Affairs  
Regulatory Specialist

TAMPA ELECTRIC COMPANY  
P.O. BOX 1111  
TAMPA, FL 33601-0111  
HILLSBOROUGH COUNTY 223-0800  
OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800  
HTTP://WWW.TECOENERGY.COM  
AN EQUAL OPPORTUNITY COMPANY

DOCUMENT NUMBER-DATE  
02666 FEB 26 88  
FPSC-RECORDS/REPORTING

**TECO**  
**TAMPA ELECTRIC COMPANY**

**1997 DISTRIBUTION SERVICE  
RELIABILITY REPORT  
TO THE  
FLORIDA PUBLIC SERVICE COMMISSION  
AS DESCRIBED IN RULE 25-6.0455**

TECO 1997

**DISTRIBUTION INTERRUPTIONS  
BY  
CATEGORY**

## 1997 DISTRIBUTION INTERRUPTIONS

INTERRUPTION TYPE	NUMBER OF INTERRUPTIONS		
	Overhead	Underground	Total
Weather and Lightning	3,322	259	3,581
Tree or Limb on Line	789	5	794
Animals	2,684	25	2,709
Cars and Public	270	53	323
Dig-In	N/A	39	39
Substation Outage	48	N/A	48
Line Transformer Failure	341	N/A	341
Salt Spray on Insulator	N/A	N/A	N/A
Corrosion	38	N/A	38
Other	1,769	N/A	1,769
Unknown	1,562	127	1,689

Interruptions per Category	10,823	508	11,331
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Average Length of Interruptions (Minutes)	102.60
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TECO 1997

**THREE PERCENT  
HIGHEST INTERRUPTED  
DISTRIBUTION CIRCUITS**

TECO

<b>1997 Three Percent Highest Interrupted Distribution Circuits</b>
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Circuit	Substation	Service Area	Residential Customers *	Commercial Customers *	Industrial Customers *	Number of Interruptions	Avg. Length (L-Bar) Minutes
13405	Keystone	1	1166	144	16	7	27.3
13668	Hampton	4	1749	88	9	4	77.5
13359	Hyde Park	1	827	28	15	4	63.5
13853	Imperial Lakes	4	1166	136	20	4	47.3
13709	Buckhorn	2	1460	156	13	4	36.5
13679	Turkey Ford	1	655	52	5	4	34.3
13045	Fern Street	3	1031	115	15	4	33.0
13708	Buckhorn	2	2242	155	21	4	24.5
13442	Lake Region	6	1282	57	3	4	21.0
13019	Gibsonton	5	1228	81	22	4	19.3
13414	Plant City	4	791	120	25	4	18.3
13652	Rhodine Road	5	1463	33	9	4	18.0
13206	Lois Ave	1	1318	106	11	4	16.3
13546	Maritime	3	356	140	59	3	85.7
13028	Temple Terrace	3	2834	219	33	3	81.7
13587	Dale Mabry	1	2449	61	12	3	78.0
13967	Jan Phyl	6	1083	39	5	3	75.7
13207	Lois Ave	1	714	41	10	3	69.0
13003	Ruskin	5	573	119	10	3	66.7
13254	Gulf City	5	1013	177	15	3	64.3

\*Number of Customers by class are estimates

## Service Areas:

1 - Western  
2 - Eastern  
3 - Central

4 - Plant City  
5 - South Hillsborough  
6 - Winter Haven

7 - Dade City

  
**FLORIDA**  
PUBLIC UTILITIES COMPANY  
1997

PO Box 610  
Marianna, FL 32447-0610

February 11, 1998

16 1998

Joe Jenkins, Director  
Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0868

Dear Mr. Jenkins:

Attached are the Annual Distribution Service Reliability Reports for Florida Public Utilities Company's two divisions. These reports are submitted in accordance with Section 25-6.0455 of the Florida Public Service Commission Rules and Regulations.

Separate reports are being submitted for the Marianna Division and Fernandina Beach Division due to the fact that both are handled separately for rate making purposes. If you have any questions please feel free to contact myself in Marianna at (850) 526-6811 or Pat Foster in Fernandina Beach at (904) 277-1957.

Yours very truly,



P. Mark Cutshaw  
Division Manager

PMC/jb

Enclosures

cc: Jack English  
Darryl Troy  
Pat Foster

# ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1997

## FLORIDA PUBLIC UTILITIES COMPANY MARIANNA DIVISION

### I. Service Interruptions by Cause - Summary

	Cause	Total No. of Interruptions	Total No. of Customers	Total Duration (Minutes)	Avg. Duration (Minutes)
1.	Lightning	146	4,530	7,835	53.66
2.	Tree/Limb Contact	150	13,770	10,023	66.82
3.	Animal	157	1,458	7,392	47.08
4.	Vehicle	4	680	226	56.50
5.	Dig-In	1	1	71	71.00
6.	Substation	0	0	0	0.00
7.	Line Transformer Failure	34	1,188	3,166	93.12
8.	Salt Spray on Insulators	0	0	0	0.00
9.	Corrosion	0	0	0	0.00
10.	Other	25	10,614	1,906	76.24
11.	Unknown	86	128	4,432	51.53
<b>TOTAL</b>		<b>603</b>	<b>32,369</b>	<b>35,051</b>	<b>58.13</b>

### II. Three Percent of Feeders with Highest Number of Feeder Operations

Marianna Substation		OCB #9882	Bristol Feeder	
Date	Total No. of Customers	Total Duration (Minutes)	Cause	
1.	6/27/97	828	30	Crane/Hwy 20 Bridge on line
2.	7/6/97	828	79	Crane/Broken tie wire, conductor came off insulator
3.	7/19/97	828	27	Tree on line
4.	7/22/97	828	75	Crane/conductor splice failure
<b>TOTAL</b>		<b>4 Interruptions</b>	<b>211 Minutes</b>	<b>Avg. Duration: 52.75 Min.</b>

**Customers by Service Class:**

**Industrial - 0**  
**Commercial - 116**  
**Residential - 712**

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1997**

**FLORIDA PUBLIC UTILITIES COMPANY  
FERNANDINA BEACH DIVISION**

**I. Service Interruptions by Cause - Summary**

Cause		Total No. of Interruptions	Total No. of Customers	Total Duration (Minutes)	Avg. Duration (Minutes)
1.	Lightning	180	5,734	16,295	90.53
2.	Tree/Limb Contact	51	571	3,891	76.29
3.	Animal	23	139	882	38.35
4.	Vehicle	4	13	217	54.25
5.	Dig-In	1	1	29	29.00
6.	Substation	0	0	0	0.00
7.	Line Transformer Failure	7	211	623	89.00
8.	Salt Spray on Insulators	0	0	0	0.00
9.	Corrosion	28	1,036	3,460	123.57
10.	Other	25	250	2,501	100.04
11.	Unknown	22	885	2,101	95.50
<b>TOTAL</b>		<b>341</b>	<b>8,840</b>	<b>29,999</b>	<b>87.97</b>

**II. Three Percent of Feeders with Highest Number of Feeder Operations**

Stepdown Substation		OCB #310	Bonnieview Rd Feeder	
Date	Total No. of Customers	Total Duration (Minutes)	Cause	
1.	3/4/97	475	78	Bad Arrester
2.	4/21/97	475	11	Conductor Fell (Broken)
3.	4/23/97	475	30	Faulty Main Breaker
4.	6/18/97	475	45	Car Hit Pole
5.	11/28/97	475	45	Car Hit Pole
<b>TOTAL</b>		<b>5 Interruptions</b>	<b>209 Minutes</b>	<b>Avg. Duration: 41.8 Min.</b>

**Customers by Service Class:**

**Industrial - 0  
Commercial - 18  
Residential - 457**

# ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1997

## FLORIDA PUBLIC UTILITIES COMPANY MARIANNA DIVISION

### I. Service Interruptions by Cause - Summary

	Cause	Total No. of Interruptions	Total No. of Customers	Total Duration (Minutes)	Avg. Duration (Minutes)
1.	Lightning	146	4,530	7,835	53.66
2.	Tree/Limb Contact	150	13,770	10,023	66.82
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10.	Other	25	10,614	1,906	76.24
11.	Unknown	86	128	4,432	51.53
<b>TOTAL</b>		<b>603</b>	<b>32,369</b>	<b>35,051</b>	<b>58.13</b>

### II. Three Percent of Feeders with Highest Number of Feeder Operations

Marianna Substation		OCB #9882	Bristol Feeder
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3.	7/19/97	828	27 Tree on line
4.	7/22/97	828	75 Crane/conductor splice failure
<b>TOTAL</b>		<b>4 Interruptions</b>	<b>211 Minutes</b> <b>Avg. Duration: 52.75 Min.</b>

**Customers by Service Class:**

**Industrial - 0**  
**Commercial - 116**  
**Residential - 712**

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1997**

**FLORIDA PUBLIC UTILITIES COMPANY  
FERNANDINA BEACH DIVISION**

**I. Service Interruptions by Cause - Summary**

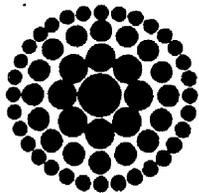
<b>Cause</b>	<b>Total No. of Interruptions</b>	<b>Total No. of Customers</b>	<b>Total Duration (Minutes)</b>	<b>Avg. Duration (Minutes)</b>
1. Lightning	180	5,734	16,295	90.53
2. Tree/Limb Contact	51	571	3,891	76.29
3. Animal	23	139	882	38.35
4. Vehicle	4	13	217	54.25
5. Dig-In	1	1	29	29.00
6. Substation	0	0	0	0.00
7. Line Transformer Failure	7	211	623	89.00
8. Salt Spray on Insulators	0	0	0	0.00
9. Corrosion	28	1,036	3,460	123.57
10. Other	25	250	2,501	100.04
11. Unknown	22	885	2,101	95.50
<b>TOTAL</b>	<b>341</b>	<b>8,840</b>	<b>29,999</b>	<b>87.97</b>

**II. Three Percent of Feeders with Highest Number of Feeder Operations**

<b>Stepdown Substation</b>	<b>OCB #310</b>	<b>Bonnieview Rd Feeder</b>
<b>Date</b>	<b>Total No. of Customers</b>	<b>Total Duration (Minutes)</b>
<b>Cause</b>		
1. 3/4/97	475	78
2. 4/21/97	475	11
3. 4/23/97	475	30
4. 6/18/97	475	45
5. 11/28/97	475	45
<b>TOTAL</b>	<b>5 Interruptions</b>	<b>209 Minutes</b>
		<b>Avg. Duration: 41.8 Min.</b>

**Customers by Service Class:**

**Industrial - 0**  
**Commercial - 18**  
**Residential - 457**



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**Florida  
Power**  
CORPORATION

1998

**JAMES A. MCGEE**  
SENIOR COUNSEL

March 1, 1999

Ms. Blanca S. Bayó, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, Florida 32399-0850

MAR 3

Re: Annual Distribution System Reliability Report

Dear Ms. Bayó:

Pursuant to FPSC Rule 25-6.0455, enclosed for filing are the original and fifteen copies of Florida Power Corporation's Distribution System Reliability Report for 1998.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Thank you for your assistance in this matter.

Very truly yours,

*James A. McGee, kma*  
James A. McGee

JAM/kma  
cc: Roberta Bass

DOCUMENT NUMBER - DATE  
02601 MAR - 1 99  
FPSC RECORDS/REPORTING

## Florida Power Corporation

### Additional FPSC Reliability Data

1/1/98 through 12/31/98

**SAIDI** - System Average Interruption Duration Index

$$SAIDI = 107.00$$

**CAIDI** - Customer Average Interruption Duration Index

$$CAIDI = 75.3$$

**SAIFI** - System Average Interruption Frequency Index

$$SAIFI = 1.41$$

**MAIFI<sub>E</sub>** - Momentary Average Interruption Frequency Index by Event

$$MAIFI_E = 18.5$$

**MI** - Percentage of customers who experience more than five outages

$$MI = 2.6\%$$

Florida Power Corporation  
 Three Percent of Feeders with Highest Interruptions  
 1/1/98 to 12/31/98

Run date 1/20/99

W0274			3	52	2407	206			15
W0904			3	51	1284	192	4		26
M423			3	50	497	80			11
A2			3	48	1542	314	5		47
J2808			3	48	1888	57			13
M342			3	46	507	25			4
W0185			3	45	1537	390	2		14
W0018			3	45	1024	66			7
K170			3	45	19	19	1		
A39			3	43	421	162			28
A50			3	37	855	110			13
W0252			3	36	1284	135			9
K4820			3	34	572	131			21
C102			3	33	1742	434			28
M1058			3	31	1183	238	1		30
X285			3	31	804	143	1		24
A98			3	31	1494	423	2		30
W0027			3	27	2251	285			18
X258			3	26	1883	21			48

Florida Power Corporation  
 Three Percent of Feeders with Highest Interruptions  
 1/1/98 to 12/31/98

Run date 1/20/99

FEEDER	SUBSTATION	AREA SERVED	NUMBER INTERRUP	AVG DURATION	RES CUST	COMM CUST	IND CUST	SL CUST	GOVT CUST
A35	Reddick	Reddick/No Ocala	8	60	423	123	6		8
A84	Inverness	Inverness	6	68.5	1337	266	1		59
W0762	Turner Plant	Debar/So Deltona	5	60.8	932	49	1		8
A97	Brooksville	Brooksville	5	43.6	559	181	1		20
K117	Avon Park	Avon Park	5	27.2	1189	155			14
M447	Bay Ridge	Mt Plymouth	5	106	1216	211			19
K926	Sand Lake	Orlando	5	38.8	259	140	1		5
A36	Reddick	Reddick/No Ocala	4	68	635	163			20
X211	Pasadena	Treasure Island	4	188.5	2785	215			38
N14	Perry North	Perry	4	62.25	1278	187	3		23
C4987	Curlew	Palm Harbor	4	75.25	2658	138			24
X144	Maximo	St Petersburg	4	48.75	553	81			1
A154	Silver Springs	Ocala	4	47.25	889	154			1
W0174	Oviedo	Oviedo	4	45.25	1586	222			12
M574	Altamonte	Altamonte	4	50	2091	373	1		39
K223	Orangewood	Orlando	4	58.75		37			2
A38	Martin	Sparr	4	72	1400	236			34
M340	Clarcona	Orlando/Ocoee areas	4	19	891	28			3
K923	Sand Lake	Orlando	4	18		91			1
W0903	Barberville	Barberville	4	18	315	143	7		12
J116	Starkey	Pinellas Park	3	113	1304	243	7		6
W0928	Winter Park East	Winter Park	3	94	1295	18			10
A130	Silver Springs	Silver Springs	3	83	1328	59			25
J143	Cross Bayou	Pinellas Park	3	81	1509	154	8	1	10
J140	Cross Bayou	Pinellas Park	3	71	2289	107			14
A231	Santos	So Ocala	3	67	1364	38			
X97	Bayway	St Petersburg Beach	3	59	1086	142			24
N231	East Point	East Point	3	56	612	147	10	1	16
W1108	Deland East	Deland	3	55	1883	144	1		20
A119	Cross City	Cross City	3	55	39	11	7		18
W0003	Winter Park	Winter Park	3	53	643	180	6		21

Florida Power Corporation  
 Interruptions and Average Duration by Cause  
 1/1/98 to 12/31/98

Run date: 1/20/99

CAUSE	OVERHEAD		UNDERGROUND		UNDETERMINED CLASSIFICATION*	
	INTERRUPTIONS	AVERAGE DURATION	INTERRUPTIONS	AVERAGE DURATION	INTERRUPTIONS	AVERAGE DURATION
ANIMAL					5401	65
DIG-IN			699	97		
LIGHTNING					3138	132
MISCELLANEOUS					243	79
TRANSFORMER					2730	177
TREE/LIMB	5869	115				
UNKNOWN					4445	80
VEHICLE					394	133
OTHER: CONNECTOR FAIL					1689	81
CONSTRUCTION EQP					31	77
DEFECTIVE EQUIP					1609	105
HUMAN ERR FPC					657	57
HUMAN ERR PUBLIC					463	100
OH SEC/SERVICE	655	119				
RIGHT OF WAY					30	24
STORMWIND	3502	139				
UG PRIMARY CABLE			2512	150		
UG SEC/SERVICE			2735	143		
TOTAL	10026	124	5946	140	20830	99
ALL CLASSES	36802	113				

\* NO OVERHEAD/UNDERGROUND CLASSIFICATION IS MADE ON THESE CAUSES



1998

March 1, 1999

MAR 1

Mr. Joseph D. Jenkins  
Florida Public Service Commission  
Director, Division of Electric & Gas  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Dear Mr. Jenkins;

Enclosed are the original and five copies of Florida Power & Light Company's (FPL's) Annual Distribution Service Reliability Report for calendar year 1998.

Pursuant to Rule 25-6.0455, Joe Jenkins' memorandum dated July 20, 1998, the FPSC's Review of Electric Service Quality and Reliability dated December 1997, and Joe Jenkins' memorandum dated January 28, 1999, the following is provided:

- (1) N, L-Bar (Attachment I) and three percent of FPL's feeders with the highest number of feeder breaker interruptions for 1998 (Attachment II);
- (2) SAIDI, CAIDI and SAIFI for 1998 and goals for 1999 (Attachment I);
- (3) MAIFI<sub>(e)</sub> for 1998 (Attachment I);
- (4) The percentage of customers experiencing more than five interruptions for 1995-1998 (Attachment I); and
- (5) 1999 planned countermeasures (Attachment III).

As the attached materials demonstrate, FPL made great strides in 1998. Improvements made in 1998 include a 7% reduction in N, 8% reduction in L-Bar, 27% reduction in SAIDI, 20% reduction in CAIDI, and a 9% reduction in SAIFI. Further, 96% of last year's worst performing feeders are no longer on the list. Additionally, in our original Reliability 2000 plan, which was submitted to you last year, we had established a 1999 target for SAIDI at 107. As indicated in Attachment I, we have already achieved that target and now hope to exceed that by 10% by the end of 1999. In 1999, our efforts will be to maintain the gains already achieved and reduce the frequency of interruptions as well as momentary interruptions.

If you have any questions, please do not hesitate to contact me at (305) 552-3643.

Sincerely,

A handwritten signature in cursive script that reads "Samuel S. Waters".

Samuel S. Waters  
Director, Regulatory Affairs

FPL  
PERIOD: JANUARY 1, 1998 THRU DECEMBER 31, 1998

**N (NUMBER OF SERVICE INTERRUPTIONS)**

(1)	CAUSE CODE	DESCRIPTION	<u>OH</u>	<u>UG</u>	<u>TOTAL</u>
	1	Lightning	11971	1040	13011
	2	Tree	11890	279	12169
	3	Animal	7128	741	7869
	4	Vehicle	972	136	1108
	5	Dig-In	0	774	774
	6	Substation	199	0	199
	7	Transformer	192	154	346
	8	Salt Spray	377	29	406
	9	Corrosion	1056	270	1326
	10	Other	8457	4997	13454
	11	Unknown	<u>26571</u>	<u>12827</u>	<u>39398</u>
	<b>TOTAL</b>		<b>68813</b>	<b>21247</b>	<b>90060</b>

**L-BAR [AVERAGE LENGTH OF A SERVICE INTERRUPTION OF  
THE LAST CUSTOMER IS RESTORED (minutes)]**

	<u>OH</u>	<u>UG</u>	<u>TOTAL</u>
	142	186	152

**3% Worst Performing Feeders**  
(See Attachment II)

(2)	<u>INDICATOR</u>	<u>1998</u>	<u>1999 Goal</u>
	SAIDI	100.2	96
	CAIDI	64.9	64.9
	SAIFI	1.54	1.48

(3) **MAIFI <sub>(e)</sub>** 11.7

Using the MAIFI <sub>(e)</sub> calculation criteria agreed upon by the utilities, very little historical information exists. As a result, FPL is not providing a goal for MAIFI <sub>(e)</sub> this year.

(4)		<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
	<b>% OF CUSTOMERS EXPERIENCING &gt;5 INTERRUPTIONS</b>	2.8	3.7	4.3	4.3

(5) **1999 Planned Countermeasures**  
(See Attachment III)

FPL ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
 PERIOD: JANUARY 1, 1998 THRU DECEMBER 31, 1998

Attachment II

FPL

RULE 25-6.0455 (b) THREE PERCENT OF THE FEEDERS WITH  
 THE HIGHEST FEEDER BREAKER SERVICE INTERRUPTIONS

Fdr#	Substation	Address	RES	COM	IND	Total	N	Lbar
2002633	HOLLAND PARK	S/O MELBOURNE BEACH. NEAR A1A	2004	117	0	2121	11	63
7006962	CHAPEL	196 AV 1/4 MI N/O SHERIDAN	596	90	0	686	10	99
8001232	OPA LOCKA	2201 NW 135 ST. MIAMI	1136	196	1	1333	9	42
4005936	BUTTS	POWERLINE ROAD. S/O BOCA RATON ROAD	1997	37	0	2034	8	70
8009135	TAMIAMI	4260 SW 8 ST. MIAMI	994	16	0	1010	8	52
8001435	FULFORD	191 NW 167 ST. MIAMI	2553	185	0	2738	8	18
8004633	INDUSTRIAL	6050 NW 37 AVE. MIAMI	0	119	0	119	7	172
8009765	SWEETWATER	NW CORNER OF NW 6 ST AND 136 AVE	995	174	2	1171	7	132
8010162	SEAGULL	11120 NW 50 ST. SEAGULL	335	235	3	573	7	81
8001131	FRONTON	3795 NW 38 AVE. MIAMI	18	174	1	193	7	73
7001035	SAMPLE ROAD	SAMPLE RD & NE 15 AVE. POMPANO	1875	91	0	1966	7	70
7004262	IMAGINATION	SW 160 AVE & 45 ST. FT LAUDERDALE	776	76	0	852	7	65
7005763	TRACE	S/O SADDLE CLUB ROAD. 1 MI W/O BONAVENTURE BLVD	2221	130	1	2352	7	62
5003966	ESTERO	1 MI W ON BROADWAY. OFF HWY 41. ESTERO	4357	494	3	4854	7	43
7000735	FAIRMONT	580 NW 31 AVE. FT LAUDERDALE	2013	345	2	2360	7	39
8006841	RED ROAD	6702 W 2 CT. HIALEAH	1640	41	0	1681	7	37
5005261	RUBONIA	EXPERIMENTAL FARM ROAD. 1/3 MI E/O US41	2315	457	1	2773	6	366
7001935	HOLY CROSS	4850 NE 19 AVE. FT LAUDERDALE	2382	334	0	2716	6	190
7001933	HOLY CROSS	4850 NE 19 AVE. FT LAUDERDALE	1961	431	1	2393	6	176
7000239	HOLLYWOOD	709 N 21 AVE. HOLLYWOOD	1638	206	0	1844	6	144
8000332	BUENA VISTA	329 NW 41 ST. MIAMI	1282	194	2	1478	6	131
1008431	SAN MATEO	SECTION 39. TOWNSHIP 10S. RANGE 27E	1021	154	0	1175	6	117
5004961	GOLDEN GATE	CNTY RD 951 & 15TH AVE S. W.	1643	181	3	1827	6	108
8004437	VENETIAN	1925 WEST AVE. MIAMI BEACH	1375	46	1	1422	6	107
5003265	COCOPLUM	US41 & PAN AM BLVD. N PORT CHARLOTTE	2710	178	0	2888	6	98
7002534	DAVIE	2100 SW 66 TERR. FT LAUDERDALE	1809	116	1	1926	6	77
8000933	40TH STREET	4008 SHERIDAN AVE. MIAMI BEACH	1605	158	2	1765	6	77
7002738	MCARTHUR	2000 NW 51 AVE. FT LAUDERDALE	523	94	1	618	6	69
1000138	DAYTONA BEACH	BAY AVE & SEAGRAVE ST. DAYTONA BEACH	316	117	1	434	6	66
8004135	GARDEN	3801 NW 179 ST. MIAMI	1974	57	2	2033	6	58
4004035	WESTWARD	5601 OKEECHOBEE RD. W PALM BEACH	1157	249	0	1406	6	39
8000234	MIAMI BEACH	MCARTHUR CAUSEWAY. MIAMI BEACH	1314	78	1	1393	5	282
1002131	DELAND	E/O SR44. DELAND & I-4	107	73	0	180	5	269
1002233	MADISON	RAINEY & NORTH ST. DAYTONA	1099	261	1	1361	5	216
8000637	LITTLE RIVER	521 NW 71 ST. MIAMI	2939	467	1	3407	5	181
8005732	GALLOWAY	8850 SW 68 ST. MIAMI	1522	81	0	1603	5	157
8004632	INDUSTRIAL	6050 NW 37 AVE. MIAMI	489	256	1	746	5	142
7005634	COPANS	LYONS ROAD & 22ND STREET	3942	99	0	4041	5	140
8006932	BIRD	6125 SW 40 ST. MIAMI	723	80	1	804	5	132
8005538	MASTER	NW 112 ST & 36 AVE. MIAMI	1490	272	0	1762	5	130

FPL ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
 PERIOD: JANUARY 1, 1998 THRU DECEMBER 31, 1998

Attachment II

FPL

RULE 25-6.0455 (b) THREE PERCENT OF THE FEEDERS WITH  
 THE HIGHEST FEEDER BREAKER SERVICE INTERRUPTIONS

Fdr#	Substation	Address	RES	COM	IND	Total	N	Lbar
8000539	RIVERSIDE	4645 NW 4 ST. MIAMI	1861	153	1	2015	5	122
4000934	BELLE GLADE	NW AVE L & 9 ST. BELLE GLADE	1174	277	2	1453	5	115
3000962	MACCLENNY	SR 23 & US 90. MACCLENNY	988	191	0	1179	5	110
4000734	BOCA RATON	10 AVE & PALMETTO PARK RD. BOCA RATON	592	382	0	974	5	104
8004537	GRATIGNY	1545 W 68 ST. HIALEAH	2956	184	1	3141	5	99
1000231	ST. AUGUSTINE	RIBERA ST & SAN SEBASTIAN RIVER	2036	247	0	2283	5	95
8007963	MIAMI LAKES	14501 NW 77 AVE. MIAMI	2803	181	2	2986	5	92
7006961	CHAPEL	6610 SW 196 AVE PEMBROKE PINES	2559	83	1	2643	5	89
5001535	PUNTA GORDA	422 KING ST. PUNTA GORDA	1989	231	0	2220	5	85
8000939	40TH STREET	4008 SHERIDAN AVE. MIAMI BEACH	754	55	1	810	5	84
8007932	MIAMI LAKES	14501 NW 77 AVE. MIAMI	1568	70	1	1639	5	81
8006032	GOLDEN GLADES	16700 NW 19 AVE. MIAMI	336	112	4	452	5	72
8004133	GARDEN	3801 NW 179 ST. MIAMI	1253	214	1	1468	5	64
5004363	PINE RIDGE	VANDERBILT BCH RD INTERSECT. E/O 41	3550	815	1	4366	5	62
7002833	PERRY	DOUGLAS RD & PEMBROKE RD. HOLLYWOOD	1064	144	0	1208	5	59
8004137	GARDEN	3801 NW 179 ST. MIAMI	3584	79	0	3663	5	49
1005831	ELKTON	4525 ST AMBROSE CHURCH RD - ELKTON	1057	339	1	1397	5	44
4005037	SANDALFOOT	W END OF SANDALFOOT BLVD. BOCA RATON	1986	49	0	2035	5	42
5004134	BENEVA	BENEVA RD. S/O BEE RIDGE RD. SARASOTA	1255	176	0	1431	5	41
3001136	COLUMBIA	DAVIS ST & ALASKA ST. LAKE CITY	973	269	1	1243	5	33
8004131	GARDEN	3801 NW 179 ST. MIAMI	1846	146	1	1993	5	32
5004367	PINE RIDGE	VANDERBILT BCH RD INTERSECT. E/O 41	4534	368	2	4904	5	25
8007162	PENNSUCO	10800 NW 107 AVE. MIAMI	2257	625	2	2884	5	24
8004531	GRATIGNY	1545 W 68 ST. HIALEAH	455	22	0	477	5	16
4003034	MILITARY TRAIL	MARS AVE & MILITARY TRAIL	1441	181	0	1622	4	263
8001235	OPA LOCKA	2201 NW 135 ST. MIAMI	2028	365	0	2393	4	234
7001932	HOLY CROSS	4850 NE 19 AVE. FT LAUDERDALE	576	201	0	777	4	225
8000738	HIALEAH	210 W 9 ST. HIALEAH	1018	261	0	1279	4	217
8001231	OPA LOCKA	2201 NW 135 ST. MIAMI	1513	232	1	1746	4	214
4000739	BOCA RATON	10 AVE & PALMETTO PARK RD. BOCA RATON	1646	229	0	1875	4	211
8001735	62ND AVENUE	62 AVE SW 18 ST MIAMI	912	62	0	974	4	208
8002437	SOUTH MIAMI	5801 SW 68 ST. MIAMI	1172	164	0	1336	4	207

N = NUMBER OF SERVICE INTERRUPTIONS

L-BAR = AVERAGE LENGTH OF A SERVICE INTERRUPTION  
 OF THE LAST CUSTOMER RESTORED (minutes)

RES = RESIDENTIAL CUSTOMERS

COM = COMMERCIAL CUSTOMERS

IND = INDUSTRIAL CUSTOMERS

# 1999 Planned Countermeasures

Category/Project	Project Description	1999 Budget
<b>INFRASTRUCTURE</b>		<b>\$139.7 M</b>
Vegetation Management	<ul style="list-style-type: none"> <li>◆ Complete 3 year vegetation maintenance cycle on feeders and begin implementation of an average 5 year lateral cycle. Over 8,000 miles of line targeted to be cleared in 1999.</li> </ul>	
Feeder Small Wire	<ul style="list-style-type: none"> <li>◆ Replace small wire on the feeder backbone (approximately 111,650 circuit feet).</li> </ul>	
Feeder Cable Rehabilitation	<ul style="list-style-type: none"> <li>◆ Multiple year program to replace all direct bured 1000mcm feeder sections. Replace all 1000mcm substation pulloff sections when they experience their 1st cable failure, and replace all other 1000mcm sections when they experience their 2nd cable failure. (Estimated 153,300 trench feet)</li> </ul>	
Lateral Cable Rehabilitation	<ul style="list-style-type: none"> <li>◆ Multiple year on going program to rehabilitate (by injection or replacement) all direct buried loop sections. Selections based on failure history and/or age. (Estimated 1,990,400 cable feet)</li> </ul>	
Standards Compliance	<ul style="list-style-type: none"> <li>● To repair or replace critical equipment that has been identified during the course of normal work.</li> </ul>	
Inspection Programs	<ul style="list-style-type: none"> <li>◆ Thermovision Feeder Inspection - Infrared and visual inspections, and associated follow up repairs, on 500 feeders.</li> <li>● Vault Inspection - Inspect and repair over 5,000 vaults.</li> <li>◆ Pole Inspections - The program will consist of inspecting and treating approximately 17,670 poles.</li> <li>◆ Padmount Security Inspection Program (PSIP) - Replace approximately 2,300 Padmount Transformers.</li> <li>◆ Environmental Policy - Locate and identify oil filled equipment in vaults and record information in computer database. Retrofill the equipment where necessary</li> </ul>	
Expansion Plan	<ul style="list-style-type: none"> <li>● Projects needed for system expansion to meet the load requirements of new and existing customers. Included in the 1999 plan is 10 new Substations and 93 Feeders.</li> </ul>	
Var Management	<ul style="list-style-type: none"> <li>● Install, maintain and control distribution capacitor banks to improve system efficiency, reliability and quality of service voltage 1999 plan is to install 390 new capacitor banks.</li> </ul>	

# 1999 Planned Countermeasures

Category/Project	Project Description	1999 Budget
<b>RELIABILITY IMPROVEMENTS</b>		<b>\$20.1 M</b>
Wire Down	<ul style="list-style-type: none"> <li>◆ Investigate wire down reports and make repairs where necessary</li> </ul>	
Multiple Year Feeder List	<ul style="list-style-type: none"> <li>◆ Address the problems on the feeders which are repeats from previous year's 3% Worst Performing Feeder List.</li> </ul>	
Multiple Interruption	<ul style="list-style-type: none"> <li>● This ongoing program addresses feeders, OCRs, laterals, and transformers that have had multiple interruptions (4 or more feeder or OCR interruptions, 5 or more Lateral or Transformer interruptions): The program consists of a review of their interruption history to identify re-occurring problems and/or specific problems that need to be investigated, field inspection, thermovision (on feeders/OCRs), and follow up countermeasures as needed.</li> </ul>	
Customer Impact	<ul style="list-style-type: none"> <li>● Address local Managers top area of concern (which were not incorporated into another plan). These area of concern address customer satisfaction, # of interruptions, length of interruption and/or high volume of repairs.</li> </ul>	
Miami Beach Improvements	<ul style="list-style-type: none"> <li>● Improve the reliability of FPL's distribution system within the city of Miami Beach.</li> </ul>	
Restoration Initiatives	<ul style="list-style-type: none"> <li>● Lateral Restoration Process - To equip restoration resources with the proper tools and equipment to reduce the duration of lateral interruptions</li> <li>● No loss of Service Ticket Reduction - Improving the screening process at the customer call care centers will reduce the number of no loss of service tickets and increase "available time" for restoration resources.</li> <li>◆ Utilize Non-traditional Resources for Investigation/Restoration of Service Interruptions - Increasing the number of restoration resources will reduce outage duration. Other FPL resources available to assist in restoration efforts include substation, meter, and transmission personnel.</li> <li>● Project Management - Coordinate all switching requirements between business units to ensure duplicate switching efforts are eliminated at South Florida Dispatch Center.</li> <li>● Feeder Balance - Balance feeders to improve switching capabilities and thereby allowing for faster restoration</li> </ul>	
Telemetry	<ul style="list-style-type: none"> <li>◆ Feeder Telemetry expansion will replace manually read thermal demand meters in at least another 36 of our Distribution Substations in Dade (21) and Broward Counties (15) (191 Feeders). These meters will telemeter real-time data back to centralized servers which provide operating information to our Dispatch Centers.</li> </ul>	
<b>Total Projects</b>		<b>\$159.8 M</b>

One Energy Place  
Pensacola, Florida 32520

Tel 850 444 6111

RECEIVED  
MAR 1 9 33 AM '99  
ADMINISTRATION  
MAIL ROOM



February 26, 1999

MAR 1

1998

Mr. Joseph Jenkins, Director  
Division of Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0868

Dear Mr. Jenkins:

Attached is Gulf Power Company's Annual Distribution Service Reliability Report as required by Rule 25-6.0455.

Sincerely,

A handwritten signature in cursive script that reads "Susan D. Ritenour".

Susan D. Ritenour  
Assistant Secretary and Assistant Treasurer

lw

Attachment

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1998**

5) Performance Indices Using FPSC Criteria

<b>SAIDI</b>	<b>69.85</b>
<b>CAIDI</b>	<b>77.42</b>
<b>SAIFI</b>	<b>0.92</b>
<b>MAIFle</b>	<b>7.30 *</b>
<b>MAIFle Anualized</b>	<b>14.60</b>

\* - July - December Data only available

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1998**

1) Total Number of Service Interruptions (N) = **7,266**

2) Number of Outages Categorized by Cause:

<b>CAUSE *</b>	<b>OVERHEAD</b>	<b>UNDERGROUND</b>
TREE	<b>524</b>	-
WIND	<b>144</b>	-
LIGHTNING	<b>1,367</b>	<b>20</b>
VEHICLE	<b>210</b>	<b>11</b>
ANIMAL	<b>3,066</b>	-
DETERIORATION	<b>457</b>	<b>92</b>
CONTAMINATION	<b>51</b>	<b>8</b>
OVERLOAD	<b>102</b>	<b>8</b>
LOOSE CONNECTION	<b>17</b>	<b>1</b>
VANDALISM	<b>5</b>	<b>0</b>
DIG-IN	-	<b>61</b>
OTHER	<b>1,085</b>	<b>37</b>

\* Transformer Failure is reported as a failed device, not as a cause.  
In any event, in 1998 we had 282 overhead transformer failures and  
13 underground transformer failures from various causes.

3) Average Length of Service Interruptions (L-BAR) **83.66** Minutes

**GULF POWER COMPANY  
ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT  
1998**

4) The 3% of the utility's feeders with the highest number of feeder breaker interruptions.

FDR. NO.	SUBSTATION	GENERAL LOCATION	NO. OF CUSTOMERS			N	L-BAR
			RES.	COMM.	OTH.		
5582	Bayou Marcus	Myrtle Grove Area Pensacola, FL	1,132	77	0	3	170.00
7272	Jay Road	Milton Area Milton, FL	2,113	401	0	3	55.67
8882	Miramar	Sandestin Area Destin, FL	2,657	166	0	2	202.50
7404	Devilliers	Baylen St. Area Pensacola, FL	676	252	1	2	78.00
8892	Miramar	Sandestin Area Destin, FL	2,117	252	0	2	168.50
7912	Glendale Road	Defuniak Springs East Defuniak Springs, FL	1,221	172	0	2	66.00
9522	Vernon	Vernon Area Vernon, FL	1,381	245	2	2	48.50
9812	Shoal River	Shoal River Area Crestview, FL	696	106	0	2	58.50
5662	Turner	Fort Walton Area Fort Walton, FL	2,390	215	0	2	49.00
6800	Molino	Molino Area Molino, FL	988	114	0	2	53.00

EAG



TAMPA ELECTRIC

1998

February 23, 1999

FEB 25

Ms. Blanca Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Florida Administrative Code, Rule 25-6.0455, Annual Distribution Service Reliability Report

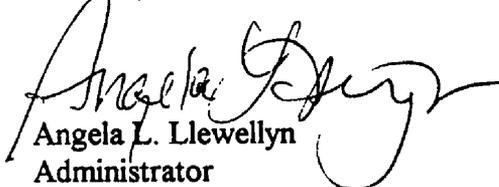
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Dear Ms. Bayo:

Pursuant to Florida Administrative Code Rule 25-6.0455, enclosed for filing are the original and 15 copies of Tampa Electric Company's Distribution Service Reliability Report for 1998.

If you have any question, please call me at (813) 228-1752.

Sincerely,

  
Angela L. Llewellyn  
Administrator  
Regulatory Coordination

Enclosure

cc: J. D. Beasley (w/enclosure)

TAMPA ELECTRIC COMPANY  
P.O. BOX 111  
TAMPA, FL 33601-0111  
HILLSBOROUGH COUNTY 223-0800  
OUTSIDE OF HILLSBOROUGH COUNTY 1-888-223-0800  
[HTTP://WWW.TECOENERGY.COM](http://www.tecoenergy.com)  
AN EQUAL OPPORTUNITY COMPANY

DOCUMENT NUMBER-DATE

02386 FEB 23 99

FPSC-RECORDS/REPORTING



1998 DISTRIBUTION SERVICE  
RELIABILITY REPORT  
TO THE  
FLORIDA PUBLIC SERVICE COMMISSION  
AS DESCRIBED IN RULE 25-6.0455

TECO 1998

**DISTRIBUTION INTERRUPTIONS  
BY  
CATEGORY**

<b>1998 DISTRIBUTION INTERRUPTIONS</b>
--

INTERRUPTION TYPE	NUMBER OF INTERRUPTIONS		
	Overhead	Underground	Total
Weather and Lightning	2,509	257	2,766
Tree or Limb on Line	880	15	895
Animals	1,646	78	1,724
Cars and Public	233	45	278
Dig-In	N/A	30	30
Substation Outage	33	N/A	33
Line Transformer Failure	357	N/A	357
Salt Spray on Insulator	N/A	N/A	N/A
Corrosion	53	N/A	53
Other	1,891	N/A	1,891
Unknown	1,336	167	1,503

Interruptions per Category	8,938	592	9,530
----------------------------	-------	-----	-------

Average Length of Interruptions (Minutes)	109.99
---	--------

Distribution Only Indices:	
SAIFI	0.83276
SAIDI	0.70728 or 42 min. 26 sec.
CAIDI	0.84932 or 50 min. 58 sec.
MAIFle	13.09

TECO 1998

**THREE PERCENT  
HIGHEST INTERRUPTED  
DISTRIBUTION CIRCUITS**

TCCO

1998 Three Percent Highest Interrupted Distribution Circuits

Circuit	Substation	Service Area	Residential Customers *	Commercial Customers *	Industrial Customers *	Number of Interruptions	Avg. Length (L-Bar) Minutes
14050	POLK POWER	PC	498	54	8	9	61.8
13405	KEYSTONE	WSA	1305	158	16	6	42.8
13442	LAKE REGION	WH	1304	56	4	6	22.5
13382	PLANT AVENUE	WSA	1134	102	24	6	12.2
13391	KIRKLAND	PC	1607	151	10	4	67.5
13512	GEORGE ROAD	WSA	2572	174	14	4	53.3
13064	HIMES	WSA	1435	105	20	4	50.3
13482	WOODLANDS	WSA	1482	245	37	4	46.3
13117	LAKE ALFRED	WH	1106	96	11	4	25.5
13044	FERN STREET	CSA	1329	105	15	4	21.5
13924	LAKE GUM	WH	458	92	13	4	18.5
13084	ORIENT PARK	ESA	24	120	51	4	13.5
13589	DALE MABRY	WSA	1328	92	9	3	62.7
13256	GULF CITY	SH	1051	262	15	3	53.3
13220	HABANA	WSA	683	114	12	3	47.3
13431	SAN ANTONIO	DC	1045	196	15	3	46.0
13010	MULBERRY	PC	1237	137	26	3	44.7
4056	MATANZAS	WSA	263	57	7	3	43.3
13123	ALEXANDER ROAD	PC	753	195	27	3	39.0
13206	LOIS AVENUE	WSA	1327	104	13	3	37.3

\*Number of Customers by class are estimates

Service Areas:

- 1 - Western
- 2 - Eastern
- 3 - Central

- 4 - Plant City
- 5 - South Hillsborough
- 6 - Winter Haven

7 - Dade City



February 1, 1999

1998

3

Joe Jenkins, Director  
Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0868

Dear Mr. Jenkins:

Attached are the Annual Distribution Service Reliability Reports for Florida Public Utilities Company's two divisions. These reports are submitted in accordance with Section 25-6.0455 of the Florida Public Service Commission Rules and Regulations.

Separate reports are being submitted for the Marianna Division and Fernandina Beach Division due to the fact that both are handled separately for rate making purposes. If you have any questions please feel free to contact myself in Marianna at (850) 526-6811 or Patrick Foster in Fernandina Beach at (904) 277-1957.

Yours very truly,

A handwritten signature in cursive script that reads "P. Mark Cutshaw".

P. Mark Cutshaw  
Division Manager

PMC/jb

Enclosures

cc: Jack English  
Chuck Stein  
Darryl Troy  
Patrick Foster  
Don Myers  
Louie Johnson

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ADMINISTRATIVE MAIL ROOM

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1998**

**FLORIDA PUBLIC UTILITIES COMPANY  
MARIANNA DIVISION**

**I. Service Interruptions by Cause - Summary**

Cause		Total No. of Interruptions	Total No. of Customers	Total Duration (Minutes)	Avg. Duration (Minutes)
1.	Lightning	95	2,529	4,624	48.67
2.	Tree/Limb Contact	126	10,472	7,260	57.62
3.	Animal	134	275	6,149	45.89
4.	Vehicle	16	2,123	1,067	66.69
5.	Dig-In	0	0	0	0.00
6.	Substation	3	992	109	36.33
7.	Line Transformer Failure	23	38	2,429	105.61
8.	Salt Spray on Insulators	0	0	0	0.00
9.	Corrosion	0	0	0	0.00
10.	Other	29	4,192	1,821	62.79
11.	Unknown	86	321	4,446	51.70
<b>TOTAL</b>		<b>512</b>	<b>20,942</b>	<b>27,905</b>	<b>54.50</b>

**II. Three Percent of Feeders with Highest Number of Feeder Interruptions**

Altha Substation		OCB #9952	Altha Feeder	
Date	Total No. of Customers	Total Duration (Minutes)	Cause	
1.	2/15/98	570	105	Vandalism - Insulators shot out.
2.	7/24/98	190	100	Phase I OCB contacts burnt open.
3.	7/24/98	570	5	Manual trip to transfer load because of above mentioned.
4.	8/20/98	570	57	Vehicle Accident
<b>TOTAL</b>		<b>4 Interruptions</b>	<b>183 Minutes</b>	<b>Avg. Duration: 66.75 Min.</b>

**Customers by Service Class:**

Industrial - 0  
Commercial - 14  
Residential - 556

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1998**

**FLORIDA PUBLIC UTILITIES COMPANY  
MARIANNA DIVISION**

**II. Three Percent of Feeders with Highest Number of Feeder Interruptions - Con't.**

Alpha Substation		OCB #9972	Blountstown Feeder	
Date	Total No. of Customers	Total Duration (Minutes)	Cause	
1.	7/24/98	232	4	Manual trip to pick up OCB #9952 load.
2.	7/25/98	232	87	Tree/Limb contact
3.	9/26/98	232	39	Tree/Limb contact
4.	11/19/98	232	53	Arrestor failure on capacitor bank.
<b>TOTAL</b>		<b>4 Interruptions</b>	<b>183 Minutes</b>	<b>Avg. Duration: 45.75 Min.</b>

**Customers by Service Class:**

Industrial	-	0
Commercial	-	8
Residential	-	224

**III. Marianna Division System Reliability Indices**

L-BAR:	54.50
CAIDI:	45.75
SAIFI:	1.78
SAIDI:	81.36
MAIFI:	Not Available

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1998**

**FLORIDA PUBLIC UTILITIES COMPANY  
FERNANDINA BEACH DIVISION**

**I. Service Interruptions by Cause - Summary**

Cause	Total No. of Interruptions	Total No. of Customers	Total Duration (Minutes)	Avg. Duration (Minutes)
1. Lightning	11	380	735	66.82
2. Tree/Limb Contact	19	223	1,597	84.05
3. Animal	11	275	555	50.45
4. Vehicle	3	22	855	285.00
5. Dig-In	1	1	47	47.00
6. Substation	1	1,500	90	90.00
7. Line Transformer Failure	4	14	477	119.25
8. Salt Spray on Insulators	1	1	52	52.00
9. Corrosion	16	1,116	1,602	100.13
10. Other	10	159	776	77.60
11. Unknown	13	83	639	49.15
<b>TOTAL</b>	<b>90</b>	<b>3,774</b>	<b>7,425</b>	<b>82.50</b>

**II. Three Percent of Feeders with Highest Number of Feeder Interruptions**

Stepdown Substation		OCB #310	Bonnieview Rd Feeder
Date	Total No. of Customers	Total Duration (Minutes)	Cause
1. 1/1/98	850	60	Car hit pole
2. 5/24/98	850	15	Overcurrent - Overload
3. 6/19/98	850	45	Limb on line
4. 7/23/98	850	8	UG Fault occurred while working on recloser
5. 8/8/98	850	75	Capacitor Bank Fault
<b>TOTAL</b>	<b>5 Interruptions</b>	<b>203 Minutes</b>	<b>Avg. Duration: 40.6 Min.</b>

**Customers by Service Class:**

Industrial - 0  
Commercial - 70  
Residential - 780

**ANNUAL DISTRIBUTION SERVICE RELIABILITY REPORT - 1998**

**FLORIDA PUBLIC UTILITIES COMPANY  
FERNANDINA BEACH DIVISION**

**III. Fernandina Beach Division System Reliability Indices**

L-BAR: 82.50

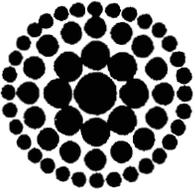
CAIDI: 82.32

SAIFI: 0.30

SAIDI: 24.85

MAIFI: Not Available

ORIGINAL



**Florida Power**  
CORPORATION

1999

**JAMES A. MCGEE**  
SENIOR COUNSEL

February 29, 2000

Ms. Blanca S. Bayó, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

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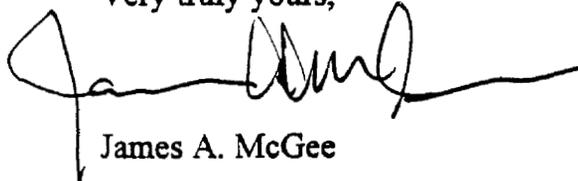
Re: Annual Distribution Service Reliability Report

Dear Ms. Bayó:

Enclosed for filing pursuant to Commission Rule 25-6.0455, F.A.C., are an original and fifteen copies of Florida Power Corporation's Annual Distribution Service Reliability Report.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Thank you for your assistance in this matter.

Very truly yours,



James A. McGee

AFA		JAM/kbd
APP		Enclosure
CAF		
CMU		
CTR		
EAG		
LEG		
MAS		
OPC		
RFR		
SEC		
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OTH		

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FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE  
02716 MAR-18  
FPSC-RECORDS/REPORTING

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**  
(year)

1999 DATA

**Florida Power Corporation**  
(Utility)

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{132,940,332}{1,371,200} = 97.0 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of Customer Minutes Interrupted (CMD)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{132,940,332}{1,852,024} = 71.8 \text{ (CAIDI)}$$

**SAIFI = System average interruption frequency index.**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{1,852,024}{1,371,200} = 1.35 \text{ (SAIFI)}$$

**MAIFI = Momentary average interruption event**

$$\frac{\text{Sum of all Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served (C)}} = \frac{23,148,747}{1,371,200} = 16.88 \text{ (MAIFI)}$$

As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning			3,188	3,188
Other Weather	4,665			4,665
Vegetation	4,775			4,775
Animal			5,413	5,413
Vehicle			444	444
Dig-in		910		910
Unknown			5,372	5,372
Other *				
Transformer			3,169	3,169
UG primary cable		2,924		2,924
UG sec/service		2,591		2,591
All Remaining Outages	705		4,744	5,449
Total	10,145	6,425	22,330	38,900

\* Next 3 highest causes

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{4,279,000}{38,900} = 110$$

DOCUMENT NUMBER-DATE

02716 MAR-18

FPC 1999

**3% Worst Performing Feeders**

Feeder #	Substation	Address	Res Cust #	Com Cust #	Ind Cust #	Total Cust #	N	L-Bar
W0105	Canoe Creek	n/a	324	110	0	434	10	169
A35	Reddick	n/a	429	132	6	567	8	122
C4203	Anclote	n/a	1,595	97	0	1692	7	45
W0150	Lake Aloma	n/a	1827	130	0	1957	6	78
K779	Islesworth	n/a	438	78	0	516	5	111
A90	Trenton	n/a	695	208	9	912	5	66
K860	Shingle Creek	n/a	1660	78	0	1738	5	52
C4201	Anclote	n/a	1948	218	14	2180	5	45
W1015	UCF	n/a	0	101	6	107	5	33
M1755	North Longwood	n/a	981	276	6	1263	5	31
W0629	Holopaw	n/a	669	259	6	934	4	144
A204	Zuber	n/a	2206	364	9	2579	4	99
W0187	Winter Springs	n/a	1240	76	0	1316	4	-90
W0192	Winter Springs	n/a	2066	96	0	2162	4	78
K1027	Taft	n/a	151	237	39	427	4	70
K1777	Meadowwoods	n/a	1516	74	0	1590	4	69
A46	Cross City Ind.	n/a	423	175	8	606	4	52
A230	Santos	n/a	951	208	0	1159	4	50
C2802	Highland	n/a	2395	114	0	2509	4	27
M32	Zellwood	n/a	588	72	1	661	4	24
X144	Maximo	n/a	552	79	0	631	4	10
W0021	Casselberry	n/a	1632	65	0	1697	3	259
W0630	Holopaw	n/a	543	66	0	609	3	183
W0392	Pinecastle	n/a	1610	85	0	1695	3	101
A334	Maricamp	n/a	1146	137	0	1283	3	93
W0903	Barberville	n/a	312	154	7	473	3	61
X46	Sixteenth St.	n/a	1347	199	2	1548	3	59
X217	Pasadena	n/a	670	15	0	685	3	47
A97	Belleville	n/a	562	200	1	763	3	43
X99	Bayway	n/a	2054	136	3	2193	3	41
C4207	Anclote	n/a	2212	58	0	2270	3	39
C208	Port Richey	n/a	2215	596	2	2813	3	35
M85	Maitland	n/a	1566	147	0	1713	3	35

*BROOKS VILLA 2098*

**Florida Power Corporation**

**Additional FPSC Reliability Data  
1/1/99 through 12/31/99**

**MI** - Percentage of customers who experienced more than five outages

**MI = 2.09%**



1999

March 1, 2000

Mr. Joseph D. Jenkins, Director  
Division of Electric & Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

MAR 1 2000

Dear Mr. Jenkins,

Enclosed are the original and five (5) copies of Florida Power & Light Company's (FPL) Annual Distribution Service Reliability Report for calendar year 1999.

Pursuant to Rule 25-6.0455, and consistent with the information agreed to per Linda Whalin's August 12, 1999 letter to Joe Jenkins, the following is provided:

- (1) SAIDI, CAIDI, SAIFI, MAIFe, N, L-Bar, and three percent of FPL's feeders with the highest number of feeder breaker interruptions for 1999 (Attachment 1).
- (2) SAIDI, CAIDI and SAIFI goals for 2000 (Attachment 2). Please note that our goals for 2000 reflect more "normal" weather conditions than those experienced in 1999. FPL's 1999's actual results include the benefits (approximately 11 minutes of SU) of milder than normal weather and days excluded due to named storms and tornadoes. For 2000, we will strive to maintain the duration gains already achieved and continue to reduce the frequency of interruptions.
- (3) The percentage of customers experiencing more than five interruptions in 1999 (Attachment 2).

As the attached materials demonstrate, FPL continued to improve its reliability and significantly surpassed its 1999 reliability goals. Improvements made in 1999 include a 25% reduction in SAIDI, a 7% reduction in CAIDI, and a 19% reduction in SAIFI. Additionally, our percent of customers experiencing more than 5 interruptions has decreased from 4.3% to 2.1%, a 51% reduction. The 1999 list of worst performing feeder's average interruption per feeder was 16% lower when compared to 1998 (From 5.7 to 4.8) and the countermeasures implemented to address the 1998 feeders resulted in an average reduction of interruption per feeder of 71% (From 5.71 to 1.68).

If you have any questions, please don't hesitate to call me at (850) 224-7595.

Sincerely,

William H. Feaster  
Manager, Regulatory Affairs

# ANNUAL DISTRIBUTION RELIABILITY REPORT 1999

## Attachment 1

### Florida Power Light

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{282471863}{3756018} = 75.2 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{282471863}{4661969} = 60.6 \text{ (CAIDI)}$$

**SAIFI = System average interruption frequency index.**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{4661969}{3756018} = 1.24 \text{ (SAIFI)}$$

**MAIFI = Momentary average interruption event**

$$\frac{\text{Sum of all Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served (C)}} = \frac{41870228}{3756018} = 11.1 \text{ (MAIFI)}$$

-----  
**As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.**

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	4026	572		4598
Other Weather	7302	1105		8407
Vegetation	11688	615		12303
Animal	8583	1078		9661
Vehicle	1014	214		1228
Dig-in	0	986		986
Unknown	19284	11234		30518
<b>Other*</b>				
1. Other	10493	6033		16526
2. Corrosion	1141	452		1593
3. Salt Spray	446	91		537
All Remaining Outages	195	95		290
<b>Total</b>	<b>64172</b>	<b>22475</b>		<b>86647</b>

50  
 97  
 35.2  
 87.2  
 8.6  
 2.8  
 1.5 } 21.9

\*List the next 3 highest causes for the Utility Reporting

-----

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{12477168}{86647} = 144$$

# ANNUAL DISTRIBUTION RELIABILITY REPORT 1999

## Attachment 1

Florida Power Light

### 3% Worst Performing Feeders

FEEDER	SUBSTATION	ADDRESS	CUSTOMERS					
			RES	COM	IND	TOTAL	N	LBAR
8008181	MILAM	3400 NW 79 AVE MIAMI	1396	104	5	1505	8	116
8011562	KOGER	82ND AVE & 82ND ST NW	1750	195	5	1950	8	63
7000934	HALLANDALE	SE 14 AVE S/O HALLANDALE BCH BLVD HALLANDALE	1484	33	0	1517	8	50
1002131	DELAND	E/O SR44 DELAND & I-4	104	70	0	174	7	107
2004361	SUNTREE	SOUTH SIDE OF WICKHAM ROAD APPROX 1 MI E/O I-95	1232	235	1	1468	7	88
8004437	VENETIAN	1925 WEST AVE. MIAMI BEACH	1184	41	0	1205	7	57
4007163	CRANE	W 1/2 OF TRACK 35 SECTION 14 TOWNSHIP-38S R-40E	2270	149	0	2419	7	40
4006864	KIMBERLY	11000 W YAMATO ROAD WEST BOCA RATON	2160	272	1	2433	6	121
8009764	SWEETWATER	NW CORNER OF NW 6 ST AND 138 AVE	783	115	3	881	6	118
4008462	ADAMS	NORTH OF SR 68 R39E T35S NE QUARTER OF SECT 8	287	193	0	480	6	113
7004264	IMAGINATION	SW 160 AVE & 45 ST FT LAUDERDALE	1575	110	0	1685	6	87
5001238	NAPLES	5 AVE & 12 ST NAPLES	895	107	0	1002	6	58
7002535	DAVIE	2100 SW 68 TERR FT LAUDERDALE	2120	91	0	2211	6	41
2001032	EAU GALLIE	MCCLENDON ST & GUAVA AVE MELBOURNE	2286	199	0	2485	6	12
8001139	FRONTON	3795 NW 38 AVE MIAMI	870	357	0	1227	5	273
5001236	NAPLES	5 AVE & 12 ST NAPLES	841	89	0	930	5	194
8000939	40TH STREET	4008 SHERIDAN AVE MIAMI BEACH	691	50	1	742	5	177
2001831	MINUTEMAN	S BREVARD AVE & 1 ST S COCOA BCH	2059	86	0	2145	5	174
5002462	LABELLE	S/O LABELLE ON SR 27 LABELLE	1890	307	2	2199	5	165
7000736	FAIRMONT	580 NW 31 AVE FT LAUDERDALE	1330	105	0	1435	5	153
7006664	NOBHILL	W BROWARD BLVD & HIATUS RD	2374	136	1	2511	5	133
8010162	SEAGULL	11120 NW 50 ST SEAGULL	632	108	2	742	5	130
4004432	PURDY LANE	MILITARY TR & PURDY LANE RD W PALM BCH	2877	137	0	3014	5	114
1002361	ST JOE	3 MI N/O ST JOE RD ON KINGS HWY BUNNELL	2560	432	0	2992	5	95
8000433	COCONUT GRO	VE 2998 SW 37 AVE MIAMI	911	133	0	1044	5	94
8008632	SEMINOLA	WEST 5 AVE & 20 ST HIALEAH	2201	352	0	2553	5	75
5001765	IONA	FT MYERS BCH RD S/O FT MYERS SR885 & PINE RIDGE RD	2659	171	3	2833	5	73
2002231	MIMS	SR 46 W/O US 1 MIMS	1312	44	0	1356	5	81
8002033	CUTLER	14925 SW 87 AVE MIAMI	982	41	0	1023	5	60
8004134	GARDEN	3801 NW 179 ST MIAMI	1594	124	0	1718	5	60
8005335	KEY BISCAYN	E W/O CRANDON BLVD CIR KEY BISCAYN	1088	74	0	1160	5	58
2001532	CITY POINT	US1 4 MI N/O COCOA	1031	210	0	1241	5	53
7003034	ROHAN	1750 SW 31 AVE. FT LAUDERDALE	1140	56	0	1196	5	50
2001736	SYKES CREEK	SR 520 & SR 3 MERRITT ISLAND	1709	104	0	1813	5	42
4005464	CLINTMOORE	CLINTMOORE RD 1 1/2 MI W/O MILITARY TRAIL	2457	166	0	2623	5	38
8004135	GARDEN	3801 NW 179 ST MIAMI	1922	52	2	1976	5	16
4005132	HUTCHINSON	ISLAN NOT ON FILE	1191	28	0	1219	4	246
7000132	SISTRUNK	420 NW 8 AVE. FT LAUDERDALE	1460	485	0	1945	4	215
8001935	DEAUVILLE	6873 HARDING AVE MIAMI BEACH	1693	155	0	1846	4	201
8007732	LEMON CITY	7645 NE 3 PLACE MIAMI	345	53	0	398	4	190
8005235	NATOMA	2475 SW 18 CT MIAMI	853	57	0	910	4	184
8003532	MARKET	2145 NW 14 AVE MIAMI	1522	318	0	1840	4	179
8005434	DADE	6301 NW 72 AVE MIAMI	0	568	1	569	4	173
3001462	YULEE	HART RD 1 MI S/O A1A	1252	157	0	1409	4	164
1001134	ORMOND	ORCHARD ST & LINCOLN ST ORMOND BCH	1984	84	0	2068	4	156
7004132	MOFFETT	FLETCHER ST & S 22 AVE. HOLLYWOOD	3258	338	0	3596	4	152
8008933	OLYMPIA HEI	GHTS SW 97 AVE & 38 ST MIAMI	1067	92	0	1159	4	147
7000941	HALLANDALE	SE 14 AVE S/O HALLANDALE BCH BLVD HALLANDALE	1991	81	0	2052	4	138
8010363	NEWTON	NOT ON FILE	2321	179	1	2501	4	132
7003035	ROHAN	1750 SW 31 AVE. FT LAUDERDALE	1594	29	0	1623	4	131
8000844	RAILWAY	523 NW 11 ST MIAMI	141	31	4	176	4	129
8004431	VENETIAN	1925 WEST AVE MIAMI BEACH	433	29	0	462	4	128
8007163	PENNSUCO	10800 NW 107 AVE MIAMI	79	276	1	356	4	126
3000732	LAWTEY	US 301 1 MI N/O LAWTEY	1238	141	0	1379	4	123
1001936	EDGEWATER	FEC RR & HIBUSCUS DR. EDGEWATER	1448	80	0	1528	4	116
4001932	LINTON	NE 3 AVE & 1 ST DELRAY BEACH	1828	201	0	2029	4	111
8001035	NORMANDY BE	ACH	1304	161	0	1465	4	108
7002831	PERRY	DOUGLAS RD & PEMBROKE RD HOLLYWOOD	1323	99	1	1423	4	107
4000431	HILLCREST	SR80 & PARKLAND RD. W PALM BEACH	1292	125	0	1417	4	106
4001231	BRIGHTON	W/O OF STATE RD 70 W/O OF C-41A CANEL E/O OF BRIGHTON	227	35	0	262	4	108
7005762	TRACE	S/O SADDLE CLUB ROAD. 1 MI W/O BONAVENTURE BLVD	3089	124	0	3193	4	108
1006235	GERONA	ST AUGUSTINE SOUTH SUBDIV. LOT 21-30 S31 T7S R30E	1549	155	0	1704	4	104
8001133	FRONTON	3795 NW 38 AVE MIAMI	574	130	0	704	4	103
7005564	SOUTHSIDE	200 S. W 7TH STREET	3529	331	0	3860	4	99
1002364	ST JOE	3 MI N/O ST JOE RD ON KINGS HWY BUNNELL	3395	133	0	3528	4	98
1002033	BULOW	JOHN ANDERSON HWY N WASHINGTON AVE	2011	70	0	2081	4	96
7007263	FLAMINGO	4601 FLAMINGO ROAD	1704	212	3	1919	4	93
5003762	HARBOR	PUNTA GORDA 3/10 MI E/O US41 ON HANCOCK BLVD	1899	292	0	2191	4	86
7006365	BASSCREEK	CORNER OF I-75 S 28 R 40 E. T 51 S	2924	184	2	3110	4	84
7000535	POMPANO	POWERLINE RD & HAMMONDVILLE RD POMPANO	2617	225	0	2842	4	79

**ANNUAL DISTRIBUTION RELIABILITY REPORT 1999  
Attachment 2**

**Florida Power Light**

**Year 2000 Goals**

**SAIDI - 86.3**

**CAIDI - 64.9**

**SAIFI - 1.33**

**MAIFIE- Using MAIFIE criteria agreed upon by the utilities, very little historical information exists. As a result, FPL is not providing a goal for MAIFIE.**

**% of Customers Experiencing > 5 Interruptions**

**1999 - 2.1%**

The Energy Place  
Pensacola, Florida 32520

350 444 6111

MAR 2 2000



1999

February 29, 2000

Mr. Joseph Jenkins, Director  
Division of Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0868

Dear Mr. Jenkins:

Attached is Gulf Power Company's Annual Distribution Service Reliability Report as required by Rule 25-6.0455.

Sincerely,

A handwritten signature in cursive script that reads "Susan D. Ritenour".

Susan D. Ritenour  
Assistant Secretary and Assistant Treasurer

lw

Attachment

FLORIDA  
DIVISION OF  
ADMINISTRATION  
2000 MAR -2 AM 8 37

# ANNUAL DISTRIBUTION RELIABILITY REPORT

1999  
(year)

## Gulf Power Company (Utility)

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{35,220,512}{363,551} = 96.879 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{35,220,512}{388,477} = 90.663 \text{ (CAIDI)}$$

**SAIFI = System average interruption frequency index**

$$= \frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{388,477}{363,551} = 1.069 \text{ (SAIFI)}$$

**MAIFI<sub>e</sub> = Momentary average interruption event**

$$= \frac{\text{Sum of all Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served (C)}} = \frac{4,297,844}{363,551} = 11.822 \text{ (MAIFI<sub>e</sub>)}$$

-----  
As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	1,833	82		1,915
Other Weather	108	0		108
Vegetation	705	0		705
Animal	2,953	45		2,998
Vehicle	205	19		224
Dig-in	0	93		93
Unknown	308	11		319
<b>Other*</b>				
1 Deterioration	1,110	341		1,451
2 Equipment Failure	262	42		304
3 Overload	226	36		262
All Remaining Outages	164	14		178
<b>Total</b>	<b>7,874</b>	<b>683</b>		<b>8,557</b>

\*List the next 3 highest causes for the Utility Reporting  
-----

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{852,689}{8,557} = 99.648$$

**3% Worst Performing Feeders**

GULF 1999

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>Min</u>	<u>L Bar</u>
734	East Hill	East Hill SouthEast Area Pensacola, Fl.	206	3		209	4	426	106.50
6932	Cantonment	Cantonment SouthEast Area Cantonment, Fl.	1,358	56		1,414	4	151	37.75
7952	Ponce De Leon	Ponce De Leon Area Ponce De Leon, Fl.	100	57		157	3	394	131.33
8232	Oak Ave	Down Town Panama City City of Panama City, Fl.	45	320		365	3	269	89.67
5852	Cantonment	Cantonment North Area Cantonment, Fl.	2,130	201		2,331	3	242	80.67
714	East Hill	East Hill North East Area Pensacola, Fl.	482	4		486	3	208	69.33
8872	Miramar	Sandestin Area Destin, Fl.	1,885	273		2,158	3	186	62.00
9212	Chipley	Chipley West Area Chipley, Fl.	1,374	252		1,626	2	179	89.50



TAMPA ELECTRIC

1999

February 24, 2000

Ms. Blanca Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Florida Administrative Code, Rule 25-6.0455, Annual Distribution Service Reliability Report

---

Dear Ms. Bayo:

Pursuant to Florida Administrative Code Rule 25-6.0455, enclosed for filing are the original and fifteen (15) copies of Tampa Electric Company's Distribution Service Reliability Report for 1999.

If you have any question, please call me at (813) 228-1752.

Sincerely,

Angela L. Llewellyn  
Administrator  
Regulatory Coordination

Enclosure

cc: J. D. Beasley (w/enclosure)

TAMPA ELECTRIC COMPANY  
P. O. BOX 111 TAMPA, FL 33601-0111

AN EQUAL OPPORTUNITY COMPANY  
[HTTP://WWW.TAMPAELECTRIC.COM](http://www.tampaelectric.com)

DOCUMENT NUMBER-DATE

(813) 228-4111

02593 FEB 25 8

CUSTOMER SERVICE:  
HILLSBOROUGH COUNTY (813) 223-0800  
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800  
FPSC-RECORDS/REPORTING



1999 DISTRIBUTION SERVICE  
RELIABILITY REPORT  
TO THE  
FLORIDA PUBLIC SERVICE COMMISSION  
AS DESCRIBED IN RULE 25-6.0455

TECO 1999

DISTRIBUTION INTERRUPTIONS  
BY  
CATEGORY

# ANNUAL DISTRIBUTION RELIABILITY REPORT 1999

## Tampa Electric

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes of Interruption (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{24,782,592}{576,093} = 43.02 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes of Interruption (CMI)}}{\text{Total number of Customers Interrupted (CI)}} = \frac{24,782,592}{507,931} = 48.79 \text{ (CAIDI)}$$

**SAIFI = System Average Interruption Frequency Index**

$$= \frac{\text{Total number of Customers Interrupted (CI)}}{\text{Total number of Customers Served (C)}} = \frac{507,931}{576,093} = 0.88168 \text{ (SAIFI)}$$

**MAIFIE = Momentary Average Interruption Event**

$$= \frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total number of Customers Served (C)}} = \frac{8,535,791}{576,093} = 14.82 \text{ (MAIFIE)}$$

As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.

Cause	Overhead	Underground	Undetermined	Total
Lightning	2,369	268	N/A	2,637 <sup>25*</sup>
Other Weather	651	49	N/A	700
Vegetation	887	13	N/A	900
Animals	1,984	104	N/A	2,088 <sup>20*</sup>
Vehicle	214	84	N/A	298
Dig-In	N/A	20	N/A	20
Unknown	1,299	197	N/A	1,496 <sup>40*</sup>
Other *				
1. Defective Equipment	669	134	N/A	803
2. Down Wire/Pole	388	19	N/A	407
3. Bad Connection	336	28	N/A	364
All Remaining Outages	297	228	N/A	525
<b>Total</b>	<b>9,094</b>	<b>1,144</b>	<b>0</b>	<b>10,238</b>

\* List the next 3 highest causes for the Utility Reporting.

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{1,111,244}{10238} = 108.54 \text{ Minutes}$$

TECO 1999

**THREE PERCENT  
HIGHEST INTERRUPTED  
DISTRIBUTION CIRCUITS**

3% Worst Performing Feeders

TCCO 1999

#6

Circuit	Substation	Service Area	Residential Customers *	Commercial Customers *	Industrial Customers *	N	L-Bar
1	13298	POLK CITY WINTER HAVEN	829	105	3	7	55.3
2	13117	LAKE ALFRED WINTER HAVEN	1,119	97	10	6	23.3
3	13910	PEACH AVENUE EASTERN	1,310	58	6	5	6.0
4	13009	MULBERRY PLANT CITY	51	75	25	5	44.6
5	13007	MULBERRY PLANT CITY	395	178	62	5	40.4
6	13687	PEARSON ROAD EASTERN	1,366	82	8	5	40.2
7	13652	RHODINE ROAD SOUTH HILLSBOROUGH	1,617	40	10	5	33.8
8	13405	KEYSTONE WESTERN	569	133	20	5	26.6
9	13482	WOODLANDS WESTERN	1,749	264	37	5	18.8
10	13872	HENDERSON ROAD WESTERN	836	14	0	5	15.0
11	13371	DAIRY ROAD WINTER HAVEN	953	76	10	4	77.3
12	13084	ORIENT PARK EASTERN	96	115	44	4	7.5
13	13606	MACDILL WESTERN	679	107	22	4	52.0
14	13010	MULBERRY PLANT CITY	1,253	142	32	4	48.0
15	13214	FAIRGROUNDS EASTERN	644	125	57	4	38.3
16	13341	EAST BAY SOUTH HILLSBOROUGH	1,008	82	20	4	34.0
17	13178	11TH AVENUE CENTRAL	50	125	45	4	29.5
18	13340	EAST BAY SOUTH HILLSBOROUGH	573	98	22	4	15.3
19	13153	CYPRESS GARDENS WINTER HAVEN	1,393	140	16	3	75.0
20	14050	POLK POWER PLANT CITY	491	54	7	3	55.3

31.33/6 R 147

13.5 / 7.5 R 45

\*Number of Customers by class are estimates



FEB 25 2000

1999

February 24, 2000

Joe Jenkins, Director  
Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0868

Dear Mr. Jenkins:

Attached are the Annual Distribution Service Reliability Reports for Florida Public Utilities Company's two divisions. These reports are submitted in accordance with Section 25-6.0455 of the Florida Public Service Commission Rules and Regulations.

Separate reports are being submitted for the Marianna Division and Fernandina Beach Division due to the fact that both are handled separately for ratemaking purposes. If you have any questions please feel free to contact myself in Marianna at (850) 526-6811 or Patrick Foster in Fernandina Beach at (904) 277-1957.

Yours very truly,

A handwritten signature in black ink that reads "P. Mark Cutshaw".

P. Mark Cutshaw  
Division Manager

PMC/jb

Enclosures

cc: Jack English  
Chuck Stein  
Darryl Troy  
Patrick Foster  
Don Myers  
Louie Johnson

**ANNUAL DISTRIBUTION RELIABILITY REPORT 1999**

**FLORIDA PUBLIC UTILITIES COMPANY - MARIANNA DIVISION**

**SAIDI=System Average Interruption Duration Index**

$$\frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served ( C )}} = \frac{807,379}{11,906} = \frac{67.81}{(\text{SAIDI})}$$

**CAIDI=Customer Average Interruption Duration Index**

$$\frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{807,376}{19,310} = \frac{41.81}{(\text{CAIDI})}$$

**SAIFI=System Average Interruption Frequency Index**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total number of Customers Served ( C )}} = \frac{19,310}{11,906} = \frac{1.62}{(\text{SAIFI})}$$

**MAIFI=Momentary Average Interruption Event**

$$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{\text{ }} = \frac{\text{ }}{(\text{MAIFI})}$$

As required by Docket No. 920229-EI, Rule 2-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	187	0		187
Other Weather	39	0		39
Vegetation	101	0		101
Animal	122	0		122
Vehicle	12	0		12
Dig-in	0	0		0
Unknown	80	1		81
Other*				0
1 Transformer Failure	39	1		40
2 Cable Failure	8	0		8
3 **	6	0		6
All Remaining Outages	3	0		3
<b>Total</b>	<b>597</b>	<b>2</b>		<b>599</b>

\*List the next 3 highest causes for the Utility Reporting

\*\* Customer cut tree on line.

$$\text{L Bar} = \frac{\text{Minutes of Interruption} = 33,608}{\text{Total Number of Outages} = 599} = 56.12$$

**ANNUAL DISTRIBUTION RELIABILITY REPORT 1999**

**FLORIDA PUBLIC UTILITIES COMPANY - MARIANNA DIVISION**

**3% Worst Performing Feeders**

<b><u>Feeder #</u></b>	<b><u>Substation</u></b>	<b><u>Address</u></b>	<b><u>Res Cust #</u></b>	<b><u>Com Cust #</u></b>	<b><u>Ind Cust #</u></b>	<b><u>Total Cust #</u></b>	<b><u>N</u></b>	<b><u>L Bar</u></b>
9952	Altha	N/A	556	14	0	570	4	55.00

**ANNUAL DISTRIBUTION RELIABILITY REPORT 1999**

**FLORIDA PUBLIC UTILITIES COMPANY - FERNANDINA BEACH DIVISION**

**SAIDI=System Average Interruption Duration Index**

$$\frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served ( C )}} = \frac{631,789}{12,956} = \frac{48.76}{\text{(SAIDI)}}$$

**CAIDI=Customer Average Interruption Duration Index**

$$\frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{631,789}{8,889} = \frac{71.08}{\text{(CAIDI)}}$$

**SAIFI=System Average Interruption Frequency Index**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total number of Customers Served ( C )}} = \frac{8,889}{12,956} = \frac{0.69}{\text{(SAIFI)}}$$

**MAIFI=Momentary Average Interruption Event**

$$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{\text{(MAIFI)}}$$

As required by Docket No. 920229-EI, Rule 2-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	35	1		36
Other Weather	0	0		0
Vegetation	69	0		69
Animal	18	1		19
Vehicle	0	0		0
Dig-in	0	1		1
Unknown	35	12		47
Other*				0
1 Transformer Failure	13	4		17
2 Cable Failure	11	1		12
3	0	0		0
All Remaining Outages	0	0		0
<b>Total</b>	<b>181</b>	<b>20</b>		<b>201</b>

\*List the next 3 highest causes for the Utility Reporting

$$\text{L Bar} = \frac{\text{Minutes of Interruption} = 18,795}{\text{Total Number of Outages} = 201} = 93.50$$

**ANNUAL DISTRIBUTION RELIABILITY REPORT 1999**

**FLORIDA PUBLIC UTILITIES COMPANY - FERNANDINA BEACH DIVISION**

**3% Worst Performing Feeders**

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>L Bar</u>
311	Stepdown	N/A	800	75	0	875	4	36.25



**Florida Power**  
A Progress Energy Company

2000

**JAMES A. MCGEE**  
ASSOCIATE GENERAL COUNSEL

February 28, 2001

Ms. Blanca S. Bayó, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

*010000-PK*

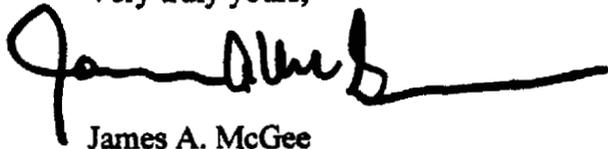
Re: Annual Distribution Service Reliability Report for 2000.

Dear Ms. Bayó:

Enclosed for filing pursuant to Commission Rule 25-6.0455, F.A.C., are an original and fifteen copies of Florida Power Corporation's Annual Distribution Service Reliability Report for 2000.

Please acknowledge your receipt of the above filing on the enclosed copy of this letter and return to the undersigned. Also enclosed is a 3.5 inch diskette containing the above-referenced document in Word format. Thank you for your assistance in this matter.

Very truly yours,



James A. McGee

JAM/scc  
Enclosure

DOCUMENT NUMBER-DATE  
02782 MAR-10  
FPSC-RECORDS/REPORTING

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**  
(year)

**Florida Power Corporation**  
(Utility)

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{140,367,859}{1,395,454} = 100.6 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{140,367,859}{1,861,239} = 75.4 \text{ (CAIDI)}$$

**SAIFI = System average interruption frequency index.**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{1,861,239}{1,395,454} = 1.33 \text{ (SAIFI)}$$

**MAIFI = Momentary average interruption event**

$$\frac{\text{Sum of all Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served (C)}} = \frac{23,042,289}{1,395,454} = 16.5 \text{ (MAIFI)}$$

-----  
As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	3,359	164		3,523
Other Weather	3,857	209		4,066
Vegetation	5,808	118		5,926
Animal	5,089	449	61	5,599
Vehicle	400	29	3	432
Dig-in		756		756
Unknown	2,718	333	1,757	4,808
Other *				
Transformer			2,981	2,981
UG primary cable		3,174	24	3,198
UG sec/service		2,372		2,372
All Remaining Outages				5,325
Total	21,231	7,604	10,151	38,986

\* Next 3 highest causes

-----

$$\text{I. Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{4,602,738}{38,986} = 118$$

**3% Worst Performing Feeders**

F P C 2000

FEEDER	SUBSTATION	ADDRESS	RES CUST	COMM CUST	IND CUST	TOTAL CUST	N	L-Bar
W0009	Winter Park	N/A	1941	217	0	2158	6	34
K303	Windermere	N/A	1617	62	0	1679	5	31
W0003	Winter Park	N/A	693	248	3	944	4	102
A204	Zuber	N/A	2794	390	6	3190	4	89
W0298	Alafaya	N/A	2094	28	0	2122	4	82
N69	Monticello	N/A	1107	217	5	1329	4	64
N58	Apalachicola	N/A	618	231	16	865	4	54
X215	Pasadena	N/A	669	278	1	948	4	54
C341	Zephyrhills N	N/A	1388	242	0	1630	4	53
X16	Bayboro	N/A	2241	144	5	2390	4	51
J145	Cross Bayou	N/A	615	235	19	869	4	35
W0158	Lake Aloma	N/A	2131	72	0	2203	4	33
J406	Largo	N/A	1548	263	0	1811	4	20
C653	BayView	N/A	2236	86	0	2322	4	16
A35	Reddick	N/A	631	160	6	797	3	261
A143	Alachua	N/A	120	26	0	146	3	169
A64	Lake Weir	N/A	1759	178	0	1937	3	167
A263	Tangerine	N/A	2059	232	4	2295	3	139
W0105	Canoe Creek	N/A	495	101	0	596	3	129
A38	Martin	N/A	1745	255	0	2000	3	91
K51	Hunters Creek	N/A	3804	226	0	4030	3	86
A251	Circle Square	N/A	1273	103	0	1376	3	75
C5406	Brooker Creek	N/A	3550	171	0	3721	3	69
A196	Archer	N/A	582	149	1	732	3	61
M426	Lake Emma	N/A	1595	213	0	1808	3	60
X36	Sixteenth St.	N/A	598	135	0	733	3	59
W0974	Rio Pinar	N/A	2417	133	0	2550	3	52
A144	Alachua	N/A	491	86	3	580	3	47
C12	Clearwater	N/A	1338	315	0	1653	3	44
X256	Pilsbury	N/A	2843	164	0	3007	3	40
A162	Crystal River N	N/A	153	149	0	302	3	40
C655	BayView	N/A	2990	341	2	3333	3	40
X18	Bayboro	N/A	999	202	4	1205	3	25

**Florida Power Corporation  
Additional FPSC Reliability Data**

**1/1/00 - 12/31/00**

MI - Percentage of Customers who experienced more than 5 outages

MI = 1.89%



March 1, 2001

2000

Mr. Joseph D. Jenkins, Director  
Safety and Electric Reliability  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Dear Mr. Jenkins,

Enclosed are the original and five (5) copies of Florida Power & Light Company's (FPL) Annual Distribution Reliability Report for calendar year 2000.

Pursuant to Rule 25-6.0455, and consistent with the information previously agreed to, the following is provided:

- 1) SAIDI, CAIDI, SAIFI, MAIFIE, N, L-bar, (Attachment 1).
- 2) A list of the number of interruptions by causes and service type (Attachment 1).
- 3) The percent of customers experiencing more than five interruptions in 2000 (Attachment 1).
- 4) Three percent of FPL's feeders with the highest number of feeder breaker interruptions for 2000 (Attachment 2).

FPL has continued its trend of improvement in reliability during the year 2000, as demonstrated by the key indicators in the attached document. These improvements include a 7% reduction in SAIDI, 4% reduction in CAIDI, 2% reduction in SAIFI, and 3% reduction in MAIFIE from 1999.

If you have any questions, please do not hesitate to call me at (850) 224-7595.

Sincerely,

A handwritten signature in black ink, appearing to read 'William H. Feaster', is written over a horizontal line.

William H. Feaster  
Manager, Regulatory Affairs

## ANNUAL DISTRIBUTION RELIABILITY REPORT 2000 Attachment 1

### Florida Power & Light

**SAIDI** = System Average Interruption Duration Index

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{267,484,885}{3,806,747} = 70.3$$

**CAIDI** = Customer Average Interruption Duration Index

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Interruptions (CI)}} = \frac{267,484,885}{4,588,872} = 58.3$$

**SAIFI** = System Average Interruption Frequency Index

$$= \frac{\text{Total Number of Customer Interruption (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{4,588,872}{3,806,747} = 1.21$$

**MAIFIE** = Momentary Average Interruption Event

$$= \frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total of Customers Served (C)}} = \frac{41,302,699}{3,806,747} = 10.8$$

**L BAR** =  $\frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}}$

$$= \frac{13,540,367}{86,728} = 156$$

As required by Docket No. 920229-EL, Rule 25-6.0455, Interruptions by cause are listed below

Causes	Overhead	Underground	Undetermined	Total
Lightning	4,523	660	-	5,183
Other Weather	6,764	915	-	7,679
Vegetation	11,689	705	-	12,394
Animal	8,349	1,150	-	9,499
Vehicle	1,026	240	-	1,266
Dig-in	100	756	-	856
Unknown	17,228	11,879	-	29,107
Other*	-	-	-	-
Other**	12,236	5,948	44	18,228
Corrosion	1,257	632	-	1,889
Salt Spray Corrosion	489	138	-	627
<b>Total</b>	<b>63,661</b>	<b>23,023</b>	<b>44</b>	<b>86,728</b>

\* List the next 3 highest causes for the Utility Report

\*\* Other is equal to all causes not part of the FPSC causes reflected above

% Of Customers Experiencing >5 Interruptions = 2.7%

# ANNUAL DISTRIBUTION RELIABILITY REPORT 2000

## Attachment 2

### Florida Power & Light

#### 3% Worst Performing Feeders

Feeder	Substation	Address	RES	COM	IND	Total	N	LBAR
704565	MALLARD	8300 Southgate Bl , N. Lauderdale	3474	91	0	3565	11	51
101464	FLAGLER BEACH	I-95 Exit 91	847	182	0	1029	7	135
702531	DAVIE	2100 S W 66th Terrace, Davie	721	106	1	828	7	63
405465	CLINTMOORE	NW C/O Clintmoore Rd & Jog Rd, Boca Raton	3402	421	1	3824	6	232
402131	TERMINAL SUB	C/O 23rd St & Terminal Dr	1998	192	0	2190	6	185
101865	ORANGEDALE (SA)	6885 County Rd, Off of SR-16A	829	46	0	875	6	179
401931	LINTON	8121 SW 137 AVE. , MIAMI	1533	408	0	1941	6	153
504961	GOLDEN GATE	NW C/O SW 15th Ave & SW 39th St, Naples	2069	236	2	2307	6	127
801139	FRONTON	3795 NW 38 AVE. , MIAMI	947	385	1	1333	6	110
705532	SOUTHSIDE 13KV	200 SW 7 St., Ft. Lauderdale	1141	170	0	1311	6	96
805738	GALLOWAY	8850 SW 68 ST , MIAMI	1305	296	0	1601	6	39
202633	HOLLAND PARK	South on SR A1A from US-192	1403	73	0	1476	6	25
801836	BISCAYNE	12635 NW 5 AVE , MIAMI	1989	340	1	2330	6	19
801937	DEAUVILLE	6873 HARDING AVE , MIAMI BEACH	696	85	0	781	5	244
801134	FRONTON	3795 NW 38 AVE , MIAMI	1028	277	1	1306	5	229
501064	FRUITVILLE 23KV	611 Bell Rd, Area MS	1800	304	2	2106	5	189
401632	OKBEOHOBEE	NW C/O SE 6th Ave & SW 2nd St, Port St Lucie	1242	347	0	1589	5	184
804439	VENETIAN	1925 WEST AVE , MIAMI BEACH	3944	298	0	4242	5	148
810363	NEWTON SUB	15951 SW 42 ST , MAIMI	1898	193	2	2093	5	128
806033	GOLDEN GLADES	16700 NW 19 AVE. , MIAMI	1459	64	0	1523	5	116
800635	LITTLE RIVER	521 NW 71 ST , MIAMI	686	192	0	878	5	88
400833	PAHOKEE	NE C/O SR 720 & Muck City Rd, Sebastian	778	128	2	908	5	73
402835	LANTANA	NE C/O Hypoluxo Rd & Seacrest Blvd, Ft. Pierce	1432	137	0	1569	5	64
504536	TUTTLE	C/O Turtle Ave & 6th St, Sarasota	1215	261	1	1477	5	58
704933	LAKEVIEW 13KV	Powerline Rd., Deerfield Beach	3642	83	0	3725	5	55
406866	KIMBERLY	SE C/O Yamato Rd & Ocean Mist Dr, Boynton Bch	4172	102	1	4275	5	55
703635	PALM AIRE 13KV	6275 NW 31 Ave. , Ft. Lauderdale	1038	140	4	1182	5	43
808436	SNAKE CREEK	3875 NW 203 ST. , MIAMI	2262	47	0	2309	5	37
704569	MALLARD 23KV	8300 Southgate Bl , N. Lauderdale	2712	112	2	2826	5	23
702637	ELY 13KV	516 NW 3 Ave., Pompano Beach	937	303	1	1241	5	6
809335	RONEY	LIBERTY AVE. & COLLINS CANAL , MIAMI	645	94	1	740	4	371
802534	GREYNOLDS	2485 NE 163 ST , NORTH MIAMI BEACH	1778	214	0	1992	4	269
800334	BUENA VISTA	329 NW 41 ST , MIAMI	681	272	1	954	4	264
803538	MARKET	2145 NW 14 AVE , MIAMI	1461	592	1	2054	4	258
800632	LITTLE RIVER	521 NW 71 ST , MIAMI	2345	398	0	2743	4	208
407163	CRANE	4060 SW Sunset Trail, Palm City	2623	157	0	2780	4	183
700637	VERENA 13KV	1401 NE 13 Ave. , Ft. Lauderdale	2157	301	0	2458	4	154
810161	SEAGULL	11120 NW 50 ST. , MIAMI	4230	271	2	4503	4	148
800333	BUENA VISTA	329 NW 41 ST , MIAMI	2469	407	2	2878	4	140
504662	CASTLE	S/O SR 64 on SW 50th St, Bradenton	2099	136	0	2235	4	140
504365	PINE RIDGE	C/O Goodlette Rd & Carcin Rd, Naples	2711	406	3	3120	4	128
501763	IONA	NW C/O SR 865 & Bayside Blvd, Ft. Myers	3227	300	0	2527	4	118
811363	KOGER	82nd Ave & 62nd St NW, Miami	1400	273	0	1673	4	116
400737	BOCA RATON	NW C/O Crawford Blvd & Palmetto Park Rd, BR	1569	102	1	1672	4	113
405032	SANDALFOOT	NW C/O Tradewind Rd & Terradas Ln BR	2327	123	0	2450	4	103
707131	CULLUM SUB	Wochnia Blvd NW 54th Av & 40th St Coconut Crk	999	74	1	1074	4	102
702232	MARGATE 13KV	Winfield Bl & NW 68th Tr. , Margate	2136	102	1	2239	4	101
406763	ACREAGE SUB	N/S/O N 71st Pl & W/S/O 140th Ave, Palm Beach	2564	245	1	2810	4	101

# ANNUAL DISTRIBUTION RELIABILITY REPORT 2000

## Attachment 2 (Continued)

### Florida Power & Light

#### 3% Worst Performing Feeders

701632	PLANTATION 13KV	4900 W Broward Bl., Plantation	1157	47	1	1205	4	98
400533	BOYNTON	Boynton Rd E/O Glen Arbor Ter, Boynton Beach	1670	461	1	2132	4	92
809664	COURT	12590 SW 136 ST. , MIAMI	2229	145	1	2375	4	89
808262	LINDGREN	8121 SW 137 AVE , MIAMI	1933	67	0	2000	4	88
809231	MITCHELL	13607 SW 92 AVE , MIAMI	1403	132	1	1536	4	82
700234	HOLLYWOOD 4/13KV	709 N 21 Ave , Hollywood	1564	315	0	1879	4	79
101134	ORMOND (DY)	228 N Orchard St, Ormond Beach	1918	72	1	1991	4	76
804438	VENETIAN	1925 WEST AVE , MIAMI BEACH	3087	364	0	3451	4	74
800239	MIAMI BEACH	EAST END OF MCARTHUR CSWY. , MIAMI BEACH	583	79	1	663	4	74
405866	DELTRAIL	1960 Howland Blvd, Deltona	4211	131	1	4343	4	71
706664	NOBHILL	W Broward Bl , Plantation	2449	144	1	2594	4	71
810561	JASMINE	8805 SW KROME AVE. , MIAMI	3571	153	2	3726	4	70
809661	COURT	12590 SW 136 ST. , MIAMI	1454	209	1	1664	4	69
504663	CASTLE	S/O SR 64 on SW 50th St, Bradenton	4295	291	1	4587	4	65
408663	HOMELAND	NE C/O Homeland Rd & Homeland St , Lake Worth	2219	124	1	2344	4	64
400739	BOCA RATON	NW C/O Crawford Blvd & Palmetto Park Rd, BR	1646	236	0	1882	4	62
804433	VENETIAN	1925 WEST AVE , MIAMI BEACH	140	118	2	260	4	57
700635	VERENA 13KV	1401 NE 13 Ave , Ft Lauderdale	1772	171	1	1944	4	56
808161	MILAM	3400 NW 79 AVE , MAJMI	1525	130	5	1660	4	54
102031	BULOW (DY)	John Anderson Hwy N/O Washington Ave	1422	165	1	1588	4	53
504061	CAPRI	SR 951 N/O Marnot Club Dr, Naples	4444	394	3	4841	4	52
301132	COLUMBIA (LC)	Martin Luther King Dr, E/O Davis Dr , Lake City	969	135	2	1106	4	51
200333	TITUSVILLE (CO)	911 Tropic St, Titusville	2034	247	0	2281	4	51
805240	NATOMA	2475 SW 16 CT. , MIAMI	1048	34	1	1083	4	47
801037	NORMANDY BCH	8670 Harding Ave, Miami Bch	659	15	0	674	4	44
504963	GOLDEN GATE	NW C/O SW 15th Ave & SW 39th St, Naples	3076	413	2	3491	4	41
703733	CRYSTAL 13KV	4035 N Powerline Rd, Pompano Beach	1930	78	0	2008	4	39
705564	SOUTHSIDE 13KV	200 SW 7 St., Ft Lauderdale	3385	348	1	3734	4	36
405863	DELTRAIL	Jog Rd N/O L31 Canal	3326	117	0	3443	4	32

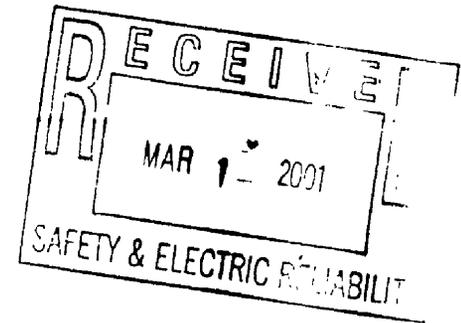
One Energy Place  
Pensacola, Florida 32520  
850 444 6111

2000



February 28, 2001

Mr. Joseph Jenkins, Director  
Division of Safety and Electric Reliability  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee FL 32399-0868



Dear Mr. Jenkins:

Attached is Gulf Power Company's Annual Distribution Service Reliability Report as required by Rule 25-6.0455.

Sincerely,

Susan D. Ritenour  
Assistant Secretary and Assistant Treasurer

lw

Attachment

# ANNUAL DISTRIBUTION RELIABILITY REPORT 2000

## Gulf Power Company

**SAIDI = System Average Interruption Duration Index**

$$= \frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served (C)}} = \frac{35,844,433}{370,119} = 96.846 \text{ (SAIDI)}$$

**CAIDI = Customer Average Interruption Duration Index**

$$= \frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{35,844,433}{444,963} = 80.556 \text{ (CAIDI)}$$

**SAIFI = System average interruption frequency index.**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total Number of Customers Served (C)}} = \frac{444,963}{370,119} = 1.202 \text{ (SAIFI)}$$

**MAIFI<sub>e</sub> = Momentary average interruption event**

$$\frac{\text{Sum of all Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served (C)}} = \frac{3,719,489}{370,119} = 10.049 \text{ (MAIFI<sub>e</sub>)}$$

-----  
**As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.**

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	1,664	63		1,727
Other Weather	193	1		194
Vegetation	1,106	9		1,115
Animal	3,289	36		3,325
Vehicle	185	26		211
Dig-in	4	71		75
Unknown	748	78		826
<b>Other*</b>				
1 Deterioration	916	472		1,388
2 Overload	217	44		261
3 Contamination/Corrosion	58	19		77
All Remaining Outages	314	33		347
<b>Total</b>	<b>8,694</b>	<b>852</b>		<b>9,546</b>

**\*List the next 3 highest causes for the Utility Reporting**  
 -----

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{946,115}{9,546} = 99.111$$

**3% Worst Performing Feeders**

GULF 2000

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>L Bar</u>
9422	Fort Walton Beach	31-T Hollywood Blvd. Fort Walton Beach, Fl.	421	253	0	674	5	91.4
8522	Longbeach	11215 Hutchison Blvd. Panama City Beach, Fl.	1479	205	0	1684	3	49.3
6932	Cantonment	600 Hwy 297A Cantonment, Fl.	1419	76	0	1495	3	50.0
7252	Jay Road	1171 N. Stewart St. Jay, Fl.	1709	131	0	1840	3	79.0
7172	Pace	4780 E. Spencer Rd. Pace, Fl.	2142	118	0	2260	3	31.0
9252	Valparaiso	84 Wolverine Rd. Valparaiso, Fl.	1993	242	0	2235	2	82.5
8732	Redwood	1709 E. 6 <sup>th</sup> St. Panama City, Fl.	2228	299	0	2527	2	84.5
812	Century	8941 Century Blvd. Century, Fl.	125	45	0	170	2	191.5



TAMPA ELECTRIC

2000

March 1, 2001

Ms. Blanca Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

010000-PA

Re: Florida Administrative Code, Rule 25-6.0455, Annual Distribution Service Reliability Report

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Dear Ms. Bayo:

Pursuant to Florida Administrative Code Rule 25.6-0455, enclosed for filing are the original and fifteen (15) copies of Tampa Electric Company's Distribution Service Reliability Report for 2000.

If you have any questions, please call me at (813) 228-1752.

Sincerely,

Angela L. Llewellyn  
Administrator  
Regulatory Coordination

Enclosure

cc: J. D. Beasley (w/enclosure)

TAMPA ELECTRIC COMPANY  
P. O. BOX 111 TAMPA, FL 33601-0111

DOCUMENT NUMBER-DATE

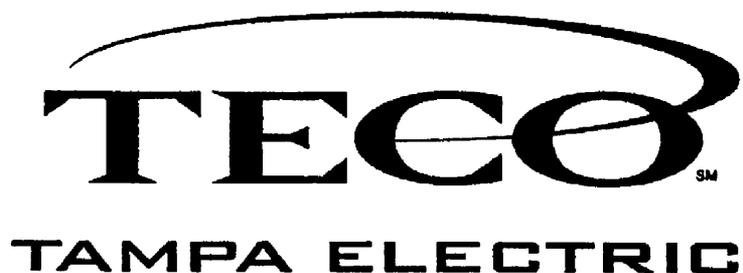
(813) 228-4111

AN EQUAL OPPORTUNITY COMPANY  
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CUSTOMER SERVICE:  
HILLSBOROUGH COUNTY (813) 223-0800  
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

FPSC-RECORDS/REPORTING



2000 DISTRIBUTION SERVICE  
RELIABILITY REPORT  
TO THE  
FLORIDA PUBLIC SERVICE COMMISSION  
AS DESCRIBED IN RULE 25-6.0455

TECO 2000

**DISTRIBUTION INTERRUPTIONS  
BY  
CATEGORY**

# ANNUAL DISTRIBUTION RELIABILITY REPORT 2000

## Tampa Electric

<b>SAIDI = System Average Interruption Duration Index</b>			
=	$\frac{\text{Sum of All Customer Minutes of Interruption (CMI)}}{\text{Total number of Customers Served (C)}}$	=	$\frac{25,674,968}{591,628} = 43.40$ (SAIDI)
<b>CAIDI = Customer Average Interruption Duration Index</b>			
=	$\frac{\text{Sum of All Customer Minutes of Interruption (CMI)}}{\text{Total number of Customers Interrupted (CI)}}$	=	$\frac{25,674,968}{497,062} = 51.65$ (CAIDI)
<b>SAIFI = System Average Interruption Frequency Index</b>			
=	$\frac{\text{Total number of Customers Interrupted (CI)}}{\text{Total number of Customers Served (C)}}$	=	$\frac{497,062}{591,628} = 0.84010$ (SAIFI)
<b>MAIFIE = Momentary Average Interruption Event</b>			
=	$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total number of Customers Served (C)}}$	=	$\frac{7,497,579}{591,628} = 12.67$ (MAIFIE)

*NOTE: All indices, except for MAIFIE, exclude data from Hurricane Gordon.  
As required by Docket No. 920229-EI, Rule 25-6.0455, interruptions by cause are listed below.*

Cause	Overhead	Underground	Undetermined	Total
Lightning	2,174	248	N/A	2,422
Other Weather	564	44	N/A	608
Vegetation	884	26	N/A	910
Animals	1,567	69	N/A	1,636
Vehicle	242	85	N/A	327
Dig-In	N/A	27	N/A	27
Unknown	1,260	268	N/A	1,528
Other				
1. Defective Equipment	559	138	N/A	697
2. Down Wire/Pole	420	21	N/A	441
3. Bad Connection	295	29	N/A	324
All Remaining Outages	286	323	N/A	609
<b>Total</b>	<b>8,251</b>	<b>1,278</b>	<b>0</b>	<b>9,529</b>

\* List the next 3 highest causes for the Utility Reporting.

L Bar = Minutes of Interruption	=	1,149,361	=	120.62 Minutes
Total Number of Outages		9,529		

TECO 2000

**THREE PERCENT  
HIGHEST INTERRUPTED  
DISTRIBUTION CIRCUITS**

2000 - 3% Worst Performing Feeders

TECO 2000

Circuit	Substation	Service Area	Residential Customers *	Commercial Customers *	Industrial Customers *	N	L-Bar
13652	Rhodine Rd	South Hillsborough	1,659	40	10	5	54.8
13438	Del Webb	South Hillsborough	612	86	23	5	40.2
13428	Rocky Creek	Western	1,238	71	4	5	31.4
13204	Temple Terrace	Central	2,000	99	10	5	30.8
13388	Kirkland	Plant City	397	59	13	5	30.0
13178	11th Ave.	Central	71	126	48	5	28.6
13872	Henderson	Western	1,018	19	1	5	21.4
13661	Lake Winterset	Winter Haven	1,326	90	12	5	40.8
13896	1st Street	South Hillsborough	945	143	19	4	39.5
13482	Woodlands	Western	1,760	259	46	4	37.5
13340	East Bay	South Hillsborough	582	104	26	4	26.0
13026	Temple Terrace	Central	1,619	224	40	4	24.8
13807	Knights	Plant City	954	106	6	4	23.5
13358	Hyde Park	Western	337	86	37	4	22.8
13932	Lake Magdalene	Central	500	23	0	4	14.8
13928	MinuteMaid	Winter Haven	0	0	2	3	75.3
13645	Rhodine Rd	South Hillsborough	1,367	114	17	3	70.3
13425	Rocky Creek	Western	1,598	37	12	3	67.0
13405	Keystone	Western	1,100	97	10	3	54.7
13317	Skyway	Western	484	35	15	3	37.3

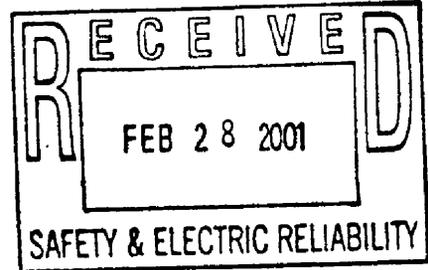


2000

PO Box 610  
Marianna, FL 32447-0610

February 26, 2001

Joe Jenkins, Director  
Electric and Gas  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0868



Dear Mr. Jenkins:

Attached are the Annual Distribution Service Reliability Reports for Florida Public Utilities Company. These reports are submitted in accordance with Section 25-6.0455 of the Florida Public Service Commission Rules and Regulations.

Separate reports are being submitted for the Marianna Division and Fernandina Beach Division due to the fact that both are handled separately for ratemaking purposes. If you have any questions please feel free to contact myself in Marianna at (850) 526-6811 or Patrick Foster in Fernandina Beach at (904) 277-1957.

Yours very truly,

P. Mark Cutshaw  
Division Manager

PMC/jb

Enclosures

cc: Jack English  
Chuck Stein  
Darryl Troy  
Patrick Foster  
Don Myers  
Louie Johnson

RECEIVED  
01 FEB 28 2001

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - FLORIDA PUBLIC UTILITIES COMPANY**

**SAIDI=System Average Interruption Duration Index**

$$\frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served ( C )}} = \frac{1,363,756}{26,423} = \frac{53.25}{(\text{SAIDI})}$$

**CAIDI=Customer Average Interruption Duration Index**

$$\frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{1,363,756}{20,910} = \frac{64.74}{(\text{CAIDI})}$$

**SAIFI=System Average Interruption Frequency Index**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total number of Customers Served ( C )}} = \frac{20,910}{26,423} = \frac{0.82}{(\text{SAIFI})}$$

**MAIFI=Momentary Average Interruption Event**

$$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{\text{N/A}} = \frac{\text{N/A}}{(\text{MAIFI})}$$

As required by Docket No. 920229-EI, Rule 2-6.0456, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	227	3	0	230
Other Weather	54	0	0	54
Vegetation	188	5	0	193
Animal	166	2	0	168
Vehicle	10	0	0	10
Dig-in	0	4	0	4
Unknown	157	23	0	180
Other*				
1 Transformer Failure	33	0	0	33
2 Corrosion	12	0	0	12
3 Cut-out Failure	7	0	0	7
All Remaining Other	19	0	0	19
<b>Total</b>	<b>873</b>	<b>37</b>		<b>910</b>

\*List the next 3 highest causes for the Utility Reporting

\*\* Customer cut tree on line.

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{60,996}{916} = 66.59$$

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - FLORIDA PUBLIC UTILITIES COMPANY**

**3% Worst Performing Feeders**

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>L Bar</u>
9982	Chipola	Mar.-N.E.	895	41	0	936	3	37.00
311	Stepdown	N/A	825	80	0	905	3	17.00

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - MARIANNA DIVISION**

**SAIDI=System Average Interruption Duration Index**

$$\frac{\text{Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served ( C )}} = \frac{978,866}{12,018} = \frac{81.45}{(\text{SAIDI})}$$

**CAIDI=Customer Average Interruption Duration Index**

$$\frac{\text{Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{978,866}{17,697} = \frac{55.31}{(\text{CAIDI})}$$

**SAIFI=System Average Interruption Frequency Index**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total number of Customers Served ( C )}} = \frac{17,697}{12,018} = \frac{1.47}{(\text{SAIFI})}$$

**MAIFI=Momentary Average Interruption Event**

$$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{\text{N/A}} = \frac{\text{N/A}}{(\text{MAIFI})}$$

As required by Docket No. 920229-EI, Rule 2-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	197	0	0	197
Other Weather	54	0	0	54
Vegetation	107	0	0	107
Animal	158	0	0	158
Vehicle	8	0	0	8
Dig-in	0	0	0	0
Unknown	107	0	0	107
Other*				
1 Transformer Failure	22	0	0	22
2 Cut-Out Failure	7	0	0	7
3 Insulator Failure	6	0	0	6
All Remaining Outages	19	0	0	19
<b>Total</b>	<b>685</b>	<b>0</b>	<b>0</b>	<b>685</b>

\*List the next 3 highest causes for the Utility Reporting

$$\text{L Bar} = \frac{\text{Minutes of Interruption n}}{\text{Total Number of Outages s}} = \frac{37,314}{685} = 54.47$$

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - MARIANNA DIVISION**

**3% Worst Performing Feeders**

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>L Bar</u>
9982	Chipola	Mar. N.E.	895	41	0	936	3	37.00

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - FERNANDINA BEACH DIVISION**

**SAIDI=System Average Interruption Duration Index**

$$\frac{\text{=Sum of All Customer Minutes Interrupted (CMI)}}{\text{Total number of Customers Served ( C )}} = \frac{374,890}{13,406} = \frac{27.97}{(\text{SAIDI})}$$

**CAIDI=Customer Average Interruption Duration Index**

$$\frac{\text{=Sum of Customer Minutes Interrupted (CMI)}}{\text{Total number of Customer Interruptions (CI)}} = \frac{374,890}{3,213} = \frac{116.68}{(\text{CAIDI})}$$

**SAIFI=System Average Interruption Frequency Index**

$$\frac{\text{Total Number of Customer Interruptions (CI)}}{\text{Total number of Customers Served ( C )}} = \frac{3,213}{13,406} = \frac{0.24}{(\text{SAIFI})}$$

**MAIFI=Momentary Average Interruption Event**

$$\frac{\text{Sum of All Customer Momentary Interruption Events (CME)}}{\text{Total Number of Customers Served ( C )}} = \frac{\text{Not Available}}{} = \frac{\text{N/A}}{(\text{MAIFI})}$$

As required by Docket No. 920229-EI, Rule 2-6.0455, interruptions by cause are listed below.

CAUSE	OVERHEAD	UNDERGROUND	UNDETERMINED	TOTAL
Lightning	30	3	0	33
Other Weather	0	0	0	0
Vegetation	81	5	0	86
Animal	8	2	0	10
Vehicle	2	0	0	2
Dig-in	0	4	0	4
Unknown	50	23	0	73
Other*				
1 Transformer Failure	11	0	0	11
2 Corrosion	12	0	0	12
3	0	0	0	0
All Remaining Other	0	0	0	0
<b>Total</b>	<b>194</b>	<b>37</b>		<b>231</b>

\*List the next 3 highest causes for the Utility Reporting

$$\text{L Bar} = \frac{\text{Minutes of Interruption}}{\text{Total Number of Outages}} = \frac{23,684}{231} = 102.53$$

**ANNUAL DISTRIBUTION RELIABILITY REPORT 2000**

**FLORIDA PUBLIC UTILITIES COMPANY - FERNANDINA BEACH DIVISION**

**3% Worst Performing Feeders**

<u>Feeder #</u>	<u>Substation</u>	<u>Address</u>	<u>Res Cust #</u>	<u>Com Cust #</u>	<u>Ind Cust #</u>	<u>Total Cust #</u>	<u>N</u>	<u>L Bar</u>
311	Stepdown	N/A	825	80	0	905	3	17.00