# GULF POWER COMPANY
# TEN YEAR SITE PLAN

# FOR ELECTRIC GENERATING FACILITIES

# AND

# ASSOCIATED TRANSMISSION LINES

Submitted to the
State of Florida
Department of Community Affairs
Division of Local Resource Management
Bureau of Land and Water Management
Power Plant Siting Program

## APRIL 1, 1988

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# CHAPTER I

# DESCRIPTION OF EXISTING FACILITIES

UTILITY: GULF POWER COMPANY
EXISTING GENERATING FACILITIES



| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Fuel | | | | | Net Capability | | Fuel | Transp |
| Plant Name | Unit No. | Location | Type | Pri | Alt | Com'l In-Service Mo/Yr | Exptd Retrmnt Mo/Yr | Gen Max Nameplate KW | Summer MW | Winter MW | Pri | Alt |
| | | | | | | | | 1,229,000 | 1098.2 | 1098.2 | | |
| Crist | 1 | Pensacola | FS | NG | HO | 1/45 | 2004 | 28,125 | 21.9 | 21.9 | PL | TK |
| | 2 | 25/1N/30W | FS | NG | HO | 6/49 | 2004 | 28,125 | 21.3 | 21.3 | PL | TK |
| | 3 | | FS | NG | HO | 9/52 | 2004 | 37,500 | 37.8 | 37.8 | PL | TK |
| | 4 | | FS | C | NG | 7/59 | 2014 | 93,750 | 87.6 | 87.6 | WA | PL |
| | 5 | | FS | C | NG | 6/61 | 2016 | 93,750 | 89.0 | 89.0 | WA | PL |
| | 6 | | FS | C | NG | 5/70 | 2015 | 369,750 | 328.0 | 328.0 | WA | PL |
| | 7 | | FS | C | -- | 8/73 | 2018 | 578,000 | 512.6 | 512.6 | WA | -- |
| | | | | | | | | 381,850 | 387.4 | 390.9 | | |
| Lansing Smith | 1 | Panama City | FS | C | -- | 6/65 | 2015 | 149,600 | 165.3 | 165.3 | WA | -- |
| | 2 | 36/2S/15W | FS | C | -- | 6/67 | 2017 | 190,400 | 190.8 | 190.8 | WA | -- |
| | A | | CT | LO | -- | 5/71 | 2001 | 41,850 | 31.3 | 34.8 | TK | -- |
| | | | | | | | | 98,000 | 94.5 | 94.5 | | |
| Scholz | 1 | Sneads | FS | C | -- | 3/53 | 2008 | 49,000 | 46.7 | 46.7 | RR | WA |
| | 2 | 12/3N/7W | FS | C | -- | 10/53 | 2008 | 49,000 | 47.8 | 47.8 | RR | WA |
| | | | | | | | | 548,250 | 511.9 | 511.9 | | |
| (A) | | | | | | | | | | | | |
| Daniel | 1 | Jackson County, MS | FS | C | HO | 9/77 | 2012 | 274,125 | 255.4 | 255.4 | RR | TK |
| | 2 | 42/5S/6W | FS | C | HO | 6/81 | 2016 | 274,125 | 256.5 | 256.5 | RR | TK |
| (A) | | | | | | | | | | | | |
| Scherer | 3 | Monroe County, GA | FS | C | -- | 1/87 | 2027 | 222,750 | 212.2 | 212.2 | RR | -- |
| | | | | | | Total System as of December 31, 1987 | | | 2304.2 | 2307.7 | | |

Abbreviations:

Fuel

FS - Fossil Steam
CT - Combustion Turbine
NG - Natural Gas
C - Coal
LO - Light Oil
HO - Heavy Oil

Fuel Transportation

PL - Pipeline
WA - Water
TK - Truck
RR - Railroad

NOTE: (A) Unit capabilities shown represent Gulf's portion of Daniel Units 1 & 2 (50%) and Scherer Unit 3 (25%).

Utility: Gulf Power Company TYP FORM 1B

Existing Generating Facilities
(A)
Land Use and Investment

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | Land Area | | Plant Capital Investment in ($1,000) | | | |
| Plant Name | Total Acres | In Use Acres | Land | Site Improvements (B) | Buildings & Equipment (C) | Total |
| Steam Total | | | 5,820 | 134,201 | 647,417 | 787,438 |
| Crist | 680 | 350 | 1,796 | 54,313 | 240,696 | 296,805 |
| Lansing Smith | 865 | 400 | 204 | 16,570 | 64,616 | 81,390 |
| Scholz | 293 (D) | 168 (D) | 45 (E) | 5,275 (E) | 21,709 (E) | 27,029 (E) |
| Daniel | 2,657 (F) | 500 (F) | 3,766 (G) | 36,791 (G) | 166,705 (G) | 207,262 (G) |
| Scherer | 12,000 | 9,500 | 9 | 21,242 | 153,498 | 174,749 |
| Caryville (Weather Station) | | | | 10 | 193 | 203 |
| Combustion Turbine Total | | | | 668 | 3,482 | 4,150 |
| Lansing Smith CT | | | | 668 | 3,482 | 4,150 |

(A) As of 12/31/87.
(B) Includes buildings.
(C) Buildings excluded due to inclusion in Col. 5
(D) Daniel Plant information refers to total area owned jointly by Gulf and Mississippi Power.
(E) Gulf Power's portion of Plant Daniel only.
(F) Scherer Plant information to total area owned by Georgia Power and area owned jointly by Gulf and Georgia Power. "In Use Acres" includes cooling water lake.
(G) Gulf Power's portion of Plant Scherer only.

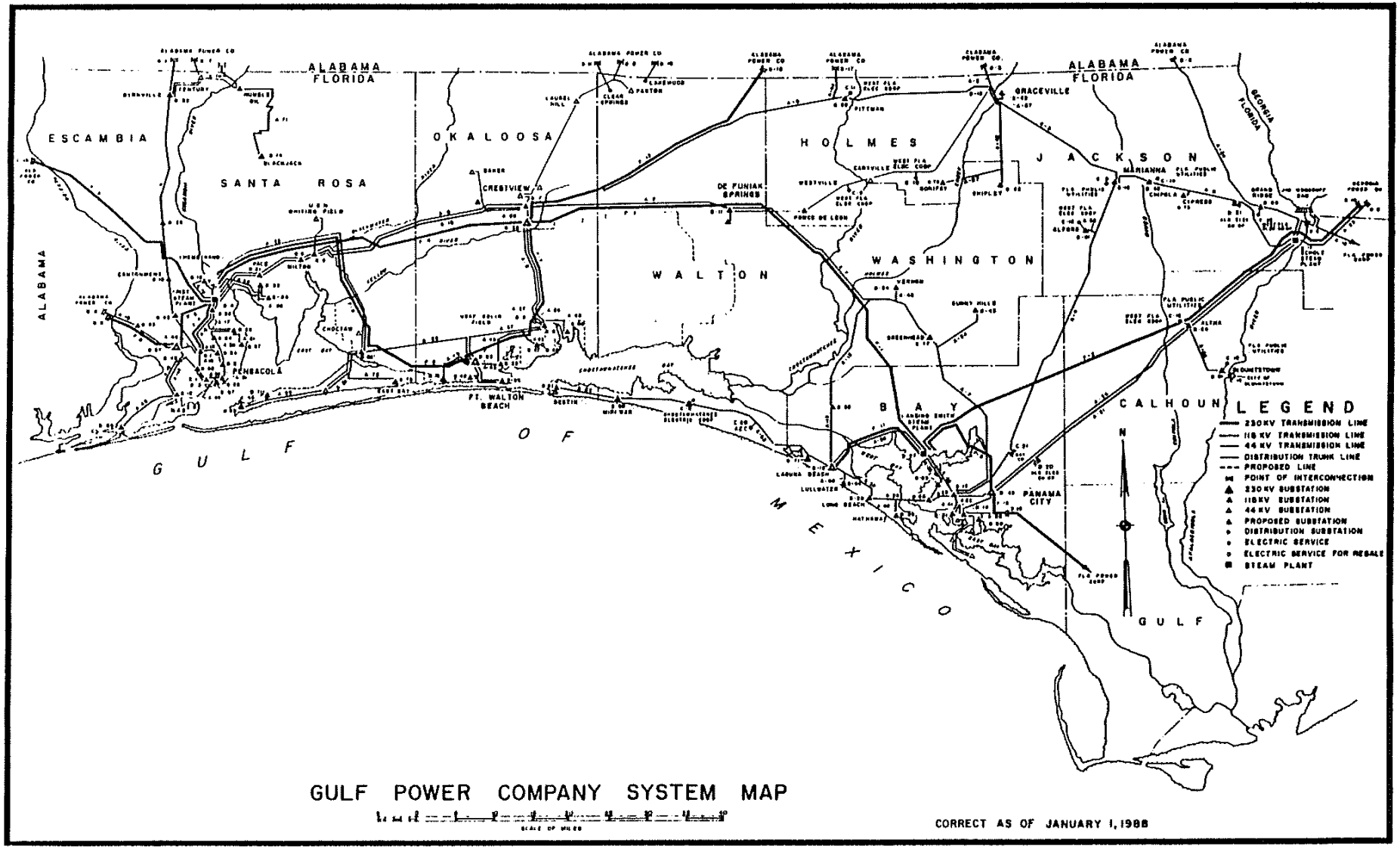
Utility: Gulf Power Company

Existing Generating Facilities
Environmental Considerations for Steam Generating Units

| (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|
| | | Flue Gas Cleaning | | | |
| Plant Name | Unit | Particulate | SOx | NOx | Cooling Type |
| Crist | 1 | no | no | no | WCTM |
| | 2 | no | no | no | WCTM |
| | 3 | no | no | no | WCTM |
| | 4 | EP | no | no | WCTM |
| | 5 | EP | no | no | WCTM |
| | 6 | EP | no | no | WCTM |
| | 7 | EP | no | no | WCTM |
| Lansing Smith | 1 | EP | no | no | OTS |
| | 2 | EP | no | no | OTS |
| Scholz | 1 | EP | no | no | OTF |
| | 2 | EP | no | no | OTF |
| Daniel | 1 | EP | no | no | CP |
| | 2 | EP | no | no | CP |
| Scherer | 3 | EP | no | no | NDCT |

Abbreviations:

EP - Electrostatic Precipitator
WCTM - Wet cooling tower, mechanical draft
OTS - Once-through, saline
OTF - Once-through, fresh
CP - Cooling pond
NDCT - Natural Draft Cooling Tower




GULF POWER COMPANY SYSTEM MAP

CORRECT AS OF JANUARY 1, 1988

# CHAPTER II

# FORECAST OF ELECTRIC POWER DEMAND

HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|
| | | | RURAL AND RESIDENTIAL | | | COMMERCIAL | | |
| YEAR | * POPULATION | MEMBERS PER HOUSEHOLD | GWH | AVERAGE NO. OF CUSTOMERS | AVERAGE KWH CONSUMPTION PER CUSTOMER | GWH | AVERAGE NO. OF CUSTOMERS | AVERAGE KWH CONSUMPTION PER CUSTOMER |
| 1978 | 475,152 | 2.83 | 2,243 | 168,156 | 13,342 | 1,254 | 21,567 | 58,124 |
| 1979 | 481,963 | 2.79 | 2,225 | 172,906 | 12,868 | 1,269 | 21,949 | 57,832 |
| 1980 | 481,996 | 2.68 | 2,335 | 180,166 | 12,959 | 1,293 | 22,459 | 57,564 |
| 1981 | 499,711 | 2.67 | 2,361 | 187,489 | 12,591 | 1,352 | 23,243 | 58,190 |
| 1982 | 514,362 | 2.65 | 2,364 | 194,228 | 12,169 | 1,432 | 23,962 | 59,748 |
| 1983 | 524,509 | 2.60 | 2,472 | 201,714 | 12,254 | 1,499 | 25,487 | 58,805 |
| 1984 | 536,990 | 2.53 | 2,561 | 212,379 | 12,057 | 1,559 | 27,336 | 57,044 |
| 1985 | 561,608 | 2.51 | 2,736 | 223,908 | 12,221 | 1,777 | 28,983 | 61,326 |
| 1986 | 576,484 | 2.48 | 2,964 | 232,816 | 12,729 | 1,913 | 30,575 | 62,572 |
| 1987 | 591,906 | 2.47 | 3,055 | 239,362 | 12,763 | 1,986 | 31,821 | 62,422 |
| 1988 | 606,152 | 2.47 | 3,227 | 245,868 | 13,123 | 2,135 | 33,056 | 64,594 |
| 1989 | 619,242 | 2.45 | 3,324 | 252,925 | 13,141 | 2,230 | 34,363 | 64,899 |
| 1990 | 631,345 | 2.43 | 3,461 | 259,891 | 13,317 | 2,305 | 35,560 | 64,822 |
| 1991 | 642,627 | 2.41 | 3,541 | 266,593 | 13,281 | 2,393 | 36,712 | 65,182 |
| 1992 | 652,881 | 2.39 | 3,642 | 272,980 | 13,343 | 2,461 | 37,809 | 65,079 |
| 1993 | 662,583 | 2.37 | 3,732 | 279,192 | 13,367 | 2,530 | 38,876 | 65,091 |
| 1994 | 671,744 | 2.35 | 3,841 | 285,274 | 13,465 | 2,597 | 39,921 | 65,062 |
| 1995 | 680,401 | 2.34 | 3,920 | 291,226 | 13,461 | 2,650 | 40,944 | 64,727 |
| 1996 | 688,580 | 2.32 | 4,005 | 297,060 | 13,481 | 2,698 | 41,947 | 64,322 |
| 1997 | 696,318 | 2.30 | 4,105 | 302,789 | 13,558 | 2,746 | 42,931 | 63,969 |

* HISTORICAL AND PROJECTED FIGURES INCLUDE PORTIONS OF ESCAMBIA, SANTA ROSA, OKALOOSA, WALTON, BAY, WASHINGTON, HOLMES, AND JACKSON COUNTIES SERVED BY GULF POWER COMPANY.

HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

| (10) | (11) | (12) | (13) | (14) | (15) | (16) |
|---|---|---|---|---|---|---|
| | INDUSTRIAL | | | | | |
| YEAR | GWH | AVERAGE NO. OF CUSTOMERS | AVERAGE KWH CONSUMPTION PER CUSTOMER | STREET AND HIGHWAY LIGHTING GWH | OTHER SALES TO ULTIMATE CONSUMERS GWH | TOTAL SALES TO ULTIMATE CONSUMERS GWH |
| 1978 | 1,530 | 160 | 9,560,894 | 14 | 0 | 5,041 |
| 1979 | 1,552 | 164 | 9,465,628 | 14 | 0 | 5,061 |
| 1980 | 1,494 | 166 | 9,002,560 | 14 | 0 | 5,136 |
| 1981 | 1,482 | 165 | 8,983,485 | 14 | 0 | 5,209 |
| 1982 | 1,432 | 170 | 8,421,988 | 14 | 0 | 5,241 |
| 1983 | 1,612 | 176 | 9,161,324 | 14 | 0 | 5,597 |
| 1984 | 1,771 | 182 | 9,731,324 | 14 | 0 | 5,905 |
| 1985 | 1,771 | 181 | 9,782,249 | 14 | 0 | 6,299 |
| 1986 | 1,745 | 194 | 8,995,227 | 14 | 0 | 6,636 |
| 1987 | 1,840 | 204 | 9,019,271 | 14 | 0 | 6,896 |
| 1988 | 1,900 | 213 | 8,920,948 | 14 | 0 | 7,276 |
| 1989 | 2,028 | 224 | 9,051,988 | 15 | 0 | 7,596 |
| 1990 | 2,105 | 227 | 9,271,161 | 15 | 0 | 7,885 |
| 1991 | 2,173 | 231 | 9,407,274 | 15 | 0 | 8,122 |
| 1992 | 2,185 | 234 | 9,337,984 | 15 | 0 | 8,303 |
| 1993 | 1,971 | 238 | 8,282,636 | 15 | 0 | 8,249 |
| 1994 | 2,002 | 241 | 8,306,200 | 16 | 0 | 8,456 |
| 1995 | 2,034 | 244 | 8,336,415 | 16 | 0 | 8,620 |
| 1996 | 2,063 | 247 | 8,351,065 | 16 | 0 | 8,782 |
| 1997 | 2,095 | 250 | 8,379,923 | 16 | 0 | 8,963 |

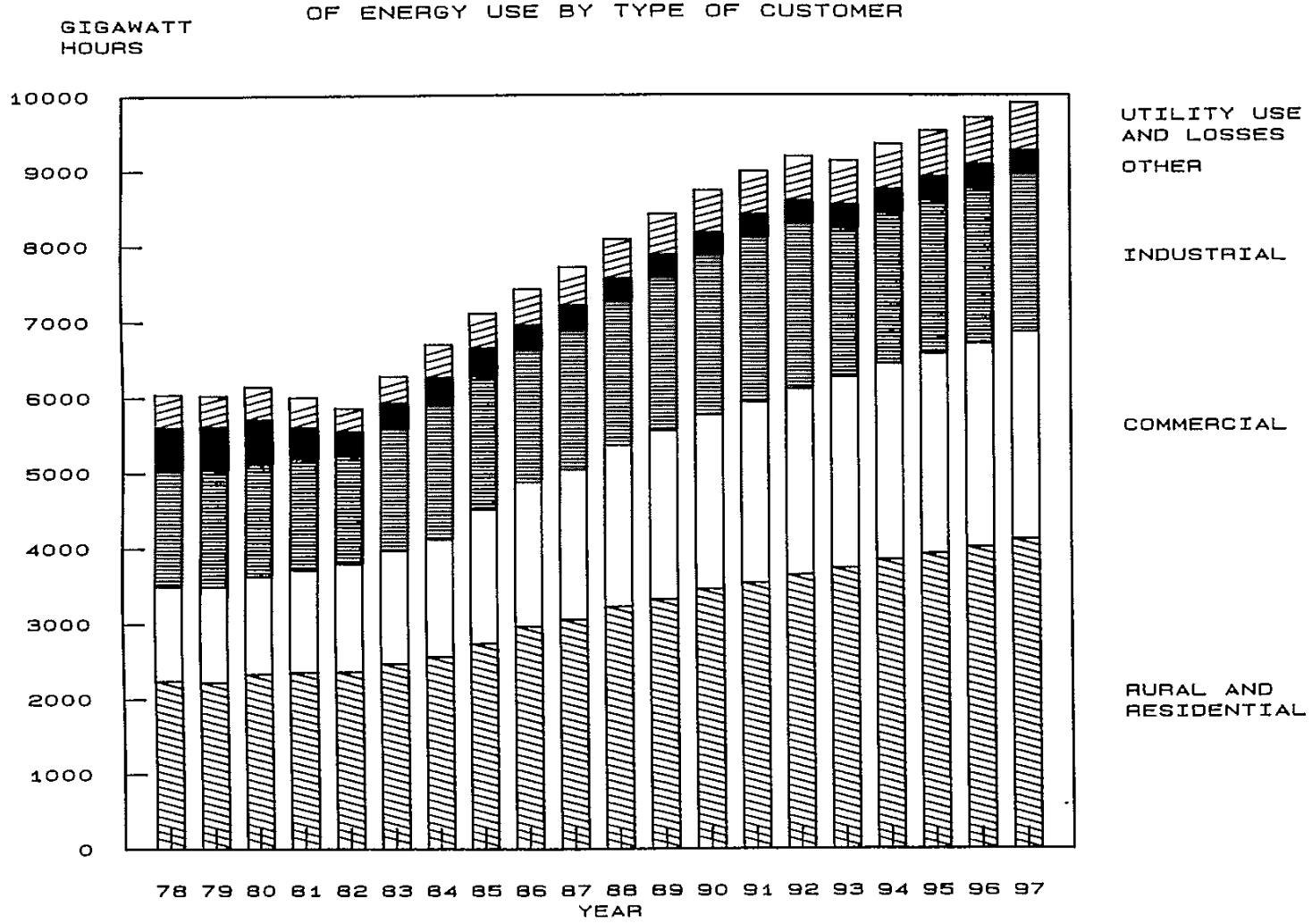
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

| (17) | (18) | (19) | (20) | (21) | (22) |
|---|---|---|---|---|---|
| YEAR | SALES FOR RESALE GWH | UTILITY USE AND LOSSES GWH | NET ENERGY FOR LOAD GWH | OTHER CUSTOMERS (AVERAGE NO.) | TOTAL NO. OF CUSTOMERS |
| 1978 | 569 | 434 | 6,044 | 59 | 189,942 |
| 1979 | 558 | 411 | 6,030 | 59 | 195,078 |
| 1980 | 574 | 438 | 6,148 | 60 | 202,851 |
| 1981 | 400 | 395 | 6,004 | 57 | 210,954 |
| 1982 | 313 | 306 | 5,859 | 59 | 218,419 |
| 1983 | 336 | 351 | 6,284 | 62 | 227,439 |
| 1984 | 364 | 433 | 6,703 | 63 | 239,960 |
| 1985 | 359 | 458 | 7,115 | 63 | 253,135 |
| 1986 | 324 | 475 | 7,435 | 61 | 263,646 |
| 1987 | 328 | 499 | 7,723 | 62 | 271,449 |
| 1988 | 297 | 516 | 8,090 | 61 | 279,198 |
| 1989 | 289 | 536 | 8,421 | 60 | 287,572 |
| 1990 | 291 | 555 | 8,732 | 60 | 295,738 |
| 1991 | 295 | 571 | 8,988 | 60 | 303,596 |
| 1992 | 297 | 584 | 9,183 | 60 | 311,083 |
| 1993 | 298 | 581 | 9,128 | 60 | 318,366 |
| 1994 | 299 | 595 | 9,350 | 60 | 325,496 |
| 1995 | 300 | 606 | 9,527 | 60 | 332,474 |
| 1996 | 301 | 617 | 9,700 | 60 | 339,314 |
| 1997 | 302 | 630 | 9,895 | 60 | 346,030 |

NOTE: SALES FOR RESALE AND NET ENERGY FOR LOAD INCLUDE CONTRACTED ENERGY ALLOCATED TO CERTAIN CUSTOMERS BY SOUTHEASTERN POWER ADMINISTRATION (SEPA).

GRAPH 1

HISTORY AND FORECAST
OF ENERGY USE BY TYPE OF CUSTOMER



Utility: Gulf Power Company
(a)(b)
Energy Sources

| Energy Sources | | | Actual 1986 | Actual 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|
| Annual Energy Interchange | | GWH | (1,022) | (3,747) | (4,201) | (1,911) | (2,121) | (55) |
| Nuclear | | GWH | None | None | None | None | None | None |
| Coal | | GWH | 8,411 | 11,426 | 12,252 | 10,332 | 10,834 | 9,030 |
| Residual | -Total | GWH | 2 | None | None | None | None | None |
| | Steam | GWH | 2 | None | None | None | None | None |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | None | None | None | None | None | None |
| | Diesel | GWH | None | None | None | None | None | None |
| Distillate | -Total | GWH | 0 | 0 | 2 | 0 | 1 | 0 |
| | Steam | GWH | None | None | None | None | None | None |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | 0 | 0 | 2 | 0 | 1 | 0 |
| | Diesel | GWH | None | None | None | None | None | None |
| Natural Gas | -Total | GWH | 44 | 44 | 37 | 0 | 18 | 13 |
| | Steam | GWH | 44 | 44 | 37 | 0 | 18 | 13 |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | None | None | None | None | None | None |
| | Diesel | GWH | None | None | None | None | None | None |
| Other | | GWH | None | None | None | None | None | None |
| Net Energy for Load | | GWH | 7,435 | 7,723 | 8,090 | 8,421 | 8,732 | 8,988 |

(a) Includes contracted energy allocated to certain resale customers by Southeastern Power Administration (SEPA)

(b) Includes energy generated from the capacity sold under existing Unit Power Sales contracts.

Utility: Gulf Power Company (a)(b)

Energy Sources

| Energy Sources | | | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Annual Energy Interchange | | GWH | (591) | (675) | 604 | 997 | 772 | (1,016) |
| Nuclear | | GWH | None | None | None | None | None | None |
| Coal | | GWH | 9,759 | 9,791 | 8,735 | 8,516 | 8,904 | 10,885 |
| Residual | -Total | GWH | None | None | None | None | None | None |
| | Steam | GWH | None | None | None | None | None | None |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | None | None | None | None | None | None |
| | Diesel | GWH | None | None | None | None | None | None |
| Distillate | -Total | GWH | 0 | 1 | 0 | 0 | 0 | 0 |
| | Steam | GWH | None | None | None | None | None | None |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | 0 | 1 | 0 | 0 | 0 | 0 |
| | Diesel | GWH | None | None | None | None | None | None |
| Natural Gas | -Total | GWH | 15 | 11 | 11 | 14 | 24 | 26 |
| | Steam | GWH | 15 | 11 | 11 | 2 | 3 | 3 |
| | CC | GWH | None | None | None | None | None | None |
| | CT | GWH | None | None | None | 12 | 21 | 23 |
| | Diesel | GWH | None | None | None | None | None | None |
| Other | | GWH | None | None | None | None | None | None |
| Net Energy for Load | | GWH | 9,183 | 9,128 | 9,350 | 9,527 | 9,700 | 9,895 |

(a) Includes contracted energy allocated to certain resale customers by Southeastern Power Administration (SEPA)

(b) Includes energy generated from the capacity sold under existing Unit Power Sales contracts.

Utility: Gulf Power Company

Fuel Requirements

| Fuel Requirements | | | Actual 1986 | Actual 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|---|---|---|
| Nuclear | | 12 BTUx10 | None | None | None | None | None | None |
| Coal | | 1000 TON | 3,704 | 4,888 | 5,124 | 4,367 | 4,566 | 3,827 |
| Residual | -Total | 1000 BBL | None | None | None | None | None | None |
| | Steam | 1000 BBL | None | None | None | None | None | None |
| | CC | 1000 BBL | None | None | None | None | None | None |
| | CT | 1000 BBL | None | None | None | None | None | None |
| | Diesel | 1000 BBL | None | None | None | None | None | None |
| Distillate | -Total | 1000 BBL | 26 | 26 | 36 | 31 | 34 | 32 |
| | Steam | 1000 BBL | 26 | 26 | 31 | 31 | 31 | 31 |
| | CC | 1000 BBL | None | None | None | None | None | None |
| | CT | 1000 BBL | 0 | 0 | 5 | 0 | 3 | 1 |
| | Diesel | 1000 BBL | None | None | None | None | None | None |
| Natural Gas | -Total | 1000 MCF | 924 | 826 | 845 | 306 | 570 | 496 |
| | Steam | 1000 MCF | 924 | 826 | 845 | 306 | 570 | 496 |
| | CC | 1000 MCF | None | None | None | None | None | None |
| | CT | 1000 MCF | None | None | None | None | None | None |
| | Diesel | 1000 MCF | None | None | None | None | None | None |
| Other | | 6 BTUx10 | None | None | None | None | None | None |
| Annual Avg. Fossil Net H.R. | | BTU/KWH | 10,639 | 10,512 | 10,261 | 10,299 | 10,296 | 10,364 |

Utility: Gulf Power Company

Fuel Requirements

| Fuel Requirements | | | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Nuclear | | 12 BTUx10 | None | None | None | None | None | None |
| Coal | | 1000 TON | 4,146 | 4,154 | 3,726 | 3,650 | 3,792 | 4,588 |
| Residual | -Total | 1000 BBL | None | None | None | None | None | None |
| | Steam | 1000 BBL | None | None | None | None | None | None |
| | CC | 1000 BBL | None | None | None | None | None | None |
| | CT | 1000 BBL | None | None | None | None | None | None |
| | Diesel | 1000 BBL | None | None | None | None | None | None |
| Distillate | -Total | 1000 BBL | 32 | 32 | 30 | 31 | 28 | 26 |
| | Steam | 1000 BBL | 31 | 31 | 29 | 30 | 28 | 26 |
| | CC | 1000 BBL | None | None | None | None | None | None |
| | CT | 1000 BBL | 1 | 1 | 1 | 1 | 0 | 0 |
| | Diesel | 1000 BBL | None | None | None | None | None | None |
| Natural Gas | -Total | 1000 MCF | 526 | 159 | 159 | 168 | 271 | 306 |
| | Steam | 1000 MCF | 526 | 159 | 159 | 30 | 37 | 39 |
| | CC | 1000 MCF | None | None | None | None | None | None |
| | CT | 1000 MCF | None | None | None | 138 | 234 | 267 |
| | Diesel | 1000 MCF | None | None | None | None | None | None |
| Other | | 6 BTUx10 | None | None | None | None | None | None |
| Annual Avg. Fossil Net H.R. | | BTU/KWH | 10,360 | 10,329 | 10,379 | 10,428 | 10,367 | 10,262 |

UTILITY: GULF POWER COMPANY



HISTORY AND FORECAST OF SEASONAL PEAK DEMAND AND ANNUAL NET ENERGY FOR LOAD

| | SUMMER PEAK DEMAND - MW | | | | | ANNUAL NET ENERGY FOR LOAD | | | |
|---|---|---|---|---|---|---|---|---|---|
| | FIRM | | | | | GWH | | | ANNUAL LOAD FACTOR |
| YEAR | RETAIL | WHOLESALE | TOTAL | INTERRUPT | TOTAL | RETAIL | WHOLESALE | TOTAL | % |
| 1978 | 1,138 | 119 | 1,257 | 0 | 1,257 | 5,475 | 569 | 6,044 | 54.9% |
| 1979 | 1,115 | 117 | 1,232 | 0 | 1,232 | 5,472 | 558 | 6,030 | 55.9% |
| 1980 | 1,259 | 133 | 1,392 | 0 | 1,392 | 5,574 | 575 | 6,148 | 50.3% |
| 1981 | 1,231 | 78 | 1,309 | 0 | 1,309 | 5,605 | 400 | 6,004 | 52.4% |
| 1982 | 1,166 | 66 | 1,232 | 0 | 1,232 | 5,547 | 313 | 5,859 | 54.3% |
| 1983 | 1,279 | 76 | 1,355 | 0 | 1,355 | 5,948 | 336 | 6,284 | 52.9% |
| 1984 | 1,315 | 80 | 1,395 | 0 | 1,395 | 6,338 | 364 | 6,703 | 54.7% |
| 1985 | 1,367 | 87 | 1,454 | 0 | 1,454 | 6,757 | 359 | 7,115 | 55.9% |
| 1986 | 1,605 | 79 | 1,684 | 0 | 1,684 | 7,110 | 324 | 7,435 | 50.4% |
| 1987 | 1,551 | 73 | 1,624 | 0 | 1,624 | 7,395 | 328 | 7,723 | 54.3% |
| 1988 | 1,627 | 56 | 1,683 | 0 | 1,683 | 7,793 | 297 | 8,090 | 54.7% |
| 1989 | 1,692 | 57 | 1,749 | 0 | 1,749 | 8,132 | 289 | 8,421 | 55.0% |
| 1990 | 1,757 | 57 | 1,814 | 0 | 1,814 | 8,441 | 291 | 8,732 | 54.9% |
| 1991 | 1,806 | 58 | 1,864 | 0 | 1,864 | 8,693 | 295 | 8,988 | 55.0% |
| 1992 | 1,844 | 59 | 1,903 | 0 | 1,903 | 8,887 | 297 | 9,183 | 54.9% |
| 1993 | 1,852 | 59 | 1,911 | 0 | 1,911 | 8,830 | 298 | 9,128 | 54.5% |
| 1994 | 1,895 | 59 | 1,954 | 0 | 1,954 | 9,051 | 299 | 9,350 | 54.6% |
| 1995 | 1,932 | 60 | 1,992 | 0 | 1,992 | 9,227 | 300 | 9,527 | 54.6% |
| 1996 | 1,973 | 60 | 2,033 | 0 | 2,033 | 9,399 | 301 | 9,700 | 54.3% |
| 1997 | 2,008 | 60 | 2,068 | 0 | 2,068 | 9,593 | 302 | 9,895 | 54.5% |

NOTE: Wholesale and total columns include contracted capacity and energy allocated to certain resale customers by Southeastern Power Administration (SEPA)

HISTORY AND FORECAST OF SEASONAL PEAK DEMAND AND ANNUAL NET ENERGY FOR LOAD

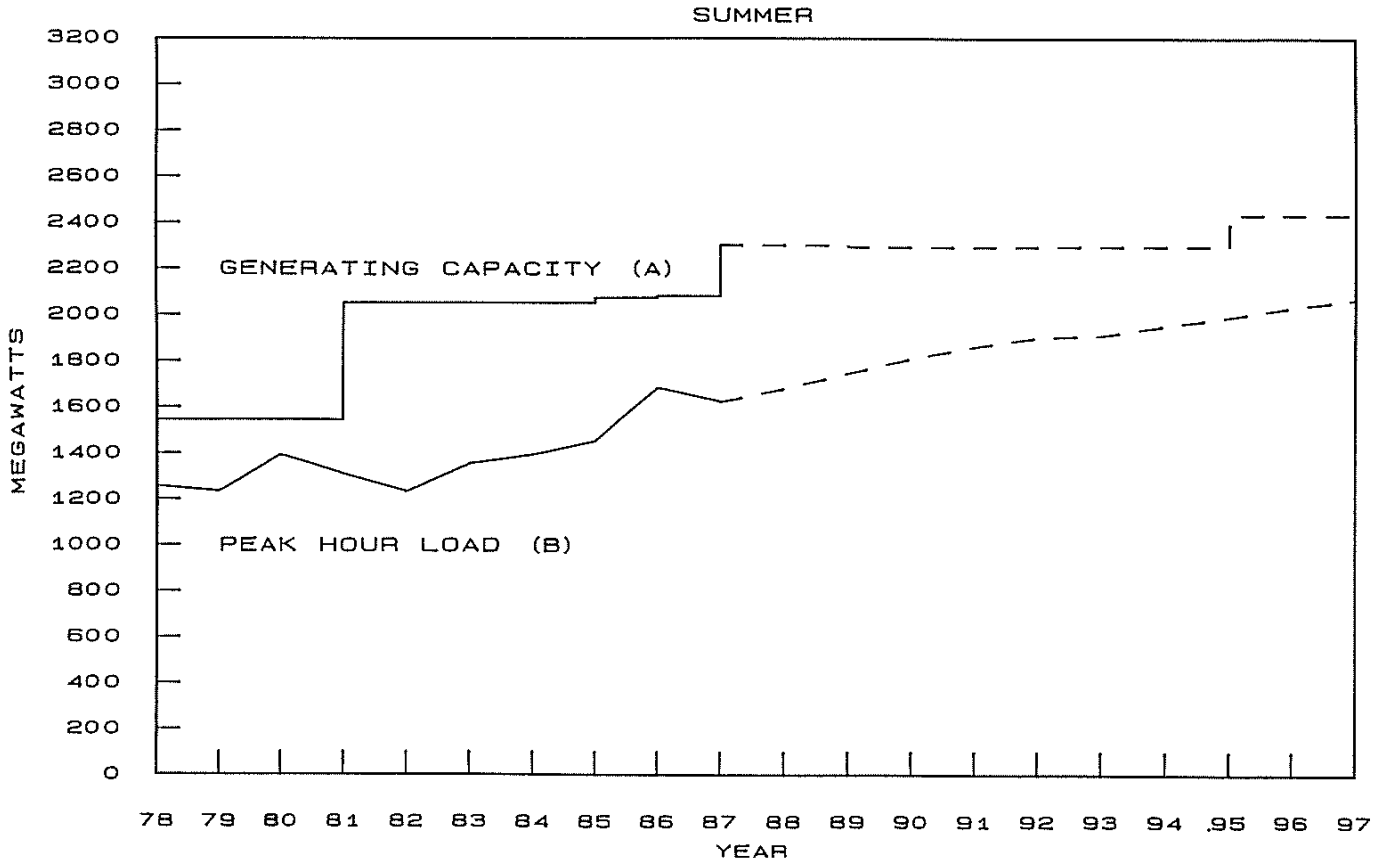
WINTER PEAK DEMAND - MW

| YEAR | FIRM | | | INTERRUPT | TOTAL |
|---|---|---|---|---|---|
| | RETAIL | WHOLESALE | TOTAL | | |
| 1978-79 | 1,041 | 113 | 1,154 | 0 | 1,154 |
| 1979-80 | 1,022 | 110 | 1,132 | 0 | 1,132 |
| 1980-81 | 1,083 | 106 | 1,189 | 0 | 1,189 |
| 1981-82 | 1,149 | 68 | 1,217 | 0 | 1,217 |
| 1982-83 | 978 | 59 | 1,037 | 0 | 1,037 |
| 1983-84 | 1,234 | 72 | 1,306 | 0 | 1,306 |
| 1984-85 | 1,450 | 81 | 1,531 | 0 | 1,531 |
| 1985-86 | 1,363 | 49 | 1,412 | 0 | 1,412 |
| 1986-87 | 1,306 | 54 | 1,360 | 0 | 1,360 |
| 1987-88 | 1,378 | 71 | 1,449 | 0 | 1,449 |
| 1988-89 | 1,441 | 63 | 1,504 | 0 | 1,504 |
| 1989-90 | 1,489 | 64 | 1,553 | 0 | 1,553 |
| 1990-91 | 1,531 | 64 | 1,595 | 0 | 1,595 |
| 1991-92 | 1,573 | 65 | 1,638 | 0 | 1,638 |
| 1992-93 | 1,576 | 65 | 1,641 | 0 | 1,641 |
| 1993-94 | 1,629 | 66 | 1,695 | 0 | 1,695 |
| 1994-95 | 1,659 | 66 | 1,725 | 0 | 1,725 |
| 1995-96 | 1,696 | 66 | 1,762 | 0 | 1,762 |
| 1996-97 | 1,735 | 67 | 1,802 | 0 | 1,802 |
| 1997-98 | 1,775 | 67 | 1,842 | 0 | 1,842 |

NOTE: Wholesale and total columns include contracted capacity and energy allocated to certain resale customers by Southeastern Power Administration (SEPA)

GRAPH 2

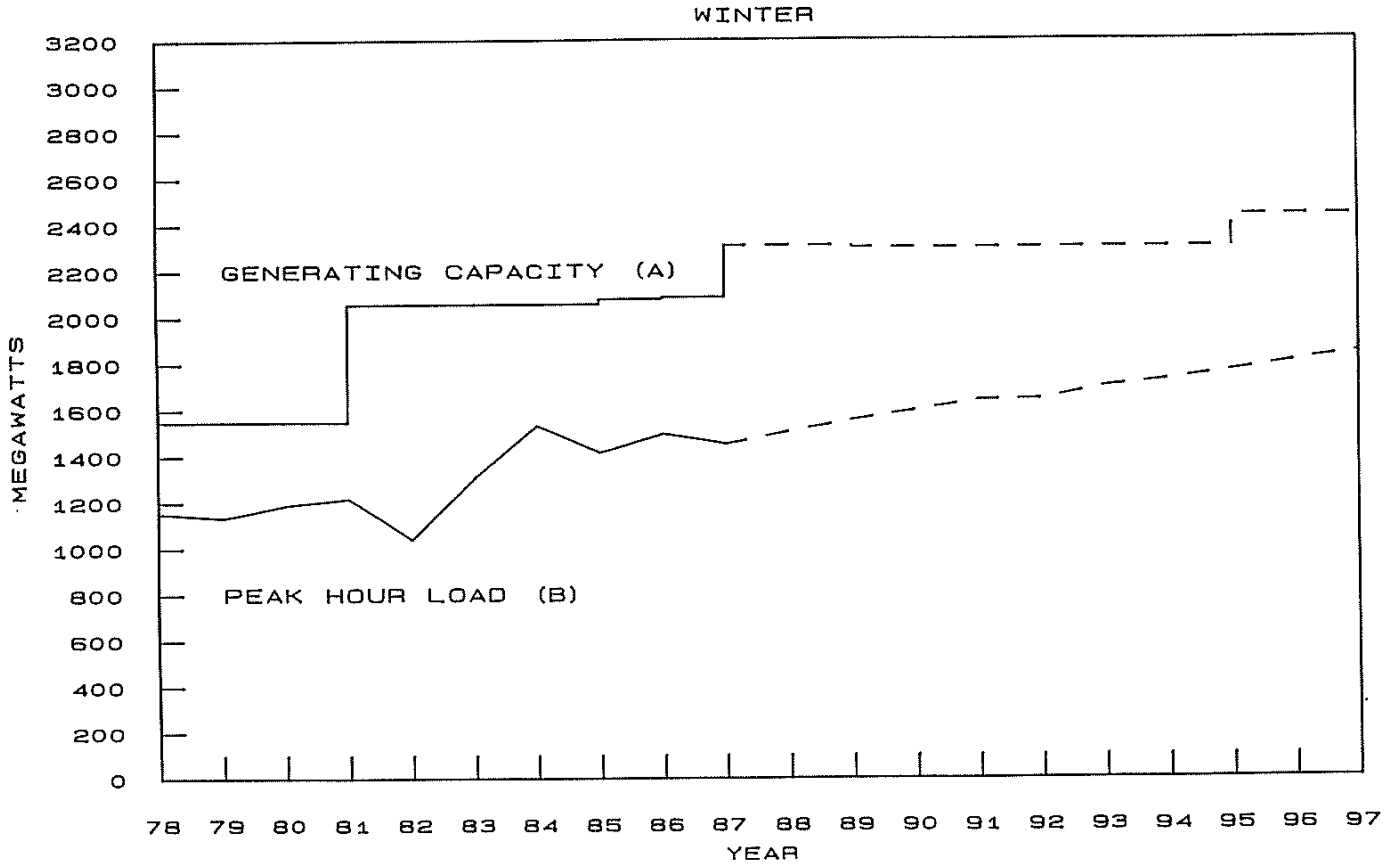
HISTORY AND FORECAST OF LOAD AND CAPACITY ADDITIONS




NOTE: (A) SHOWS INSTALLED GENERATING CAPACITY ONLY; REFER TO FORM 7A FOR NET AVAILABLE CAPACITY.
(B) INCLUDES CAPACITY ALLOCATED TO CERTAIN RESALE CUSTOMERS BY SEPA.

GRAPH 2

HISTORY AND FORECAST OF LOAD AND CAPACITY ADDITIONS




NOTE: (A) SHOWS INSTALLED GENERATING CAPACITY ONLY; REFER TO FORM 7B FOR NET AVAILABLE CAPACITY.
(B) INCLUDES CAPACITY ALLOCATED TO CERTAIN RESALE CUSTOMERS BY SEPA.

UTILITY: GULF POWER COMPANY

TYP FORM 5

PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH

| | ACTUAL | | FORECAST | | | |
|---|---|---|---|---|---|---|
| | 1987 | | 1988 | | 1989 | |
| MONTH | PEAK DEMAND MW | NEL GWH | PEAK DEMAND MW | NEL GWH | PEAK DEMAND MW | NEL GWH |
| JAN | 1,360 | 631 | 1,449 | 682 | 1,504 | 714 |
| FEB | 1,249 | 522 | 1,171 | 536 | 1,214 | 559 |
| MAR | 1,126 | 543 | 1,150 | 566 | 1,202 | 597 |
| APR | 1,099 | 538 | 1,021 | 528 | 1,060 | 550 |
| MAY | 1,312 | 657 | 1,338 | 659 | 1,386 | 684 |
| JUN | 1,477 | 751 | 1,680 | 830 | 1,745 | 863 |
| JUL | 1,622 | 854 | 1,683 | 856 | 1,749 | 890 |
| AUG | 1,624 | 874 | 1,654 | 881 | 1,718 | 915 |
| SEP | 1,474 | 719 | 1,397 | 719 | 1,450 | 747 |
| OCT | 978 | 536 | 1,216 | 586 | 1,263 | 610 |
| NOV | 1,078 | 525 | 1,089 | 565 | 1,122 | 585 |
| DEC | 1,265 | 574 | 1,300 | 682 | 1,346 | 708 |
| TOTAL | | 7,723 | | 8,090 | | 8,421 |

NOTE: Includes contracted capacity and energy allocated to certain resale customers by Southeastern Power Administration (SEPA).

# FORECASTING DOCUMENTATION

GULF POWER COMPANY
LOAD FORECASTING METHODOLOGY
OVERVIEW

Gulf Power Company views the forecasting effort as a dynamic process requiring ongoing efforts to yield results which allow informed planning and decision-making. The total forecast is an integration of different techniques and methodologies, each applied to the task for which it is best suited. Many of the techniques take advantage of the extensive data made available through the Company's marketing efforts, which are predicated on the philosophy of knowing in detail the characteristics, perceptions and motivations of our customers and actively promoting wise and efficient uses of energy which meet the needs of those customers. Gulf is recognized as an industry leader in the successful implementation of cost-effective conservation programs, beginning with the introduction of the highly successful Good ¢ents Home concept in 1976, and continuing with concerted efforts to meet the mandates of the 1980 Florida Energy Efficiency and Conservation Act (FEECA). This philosophy entails extensive market research and close contact with customers, and provides the opportunity to gain first-hand knowledge of changes occurring in the market. Also included in these efforts is continued research support for promising new energy technologies, including solar photovoltaics, electric vehicles, fuel cells and high efficiency equipment.

The Forecasting and Marketing Planning section of the Marketing and Load Management Department is responsible for preparing forecasts of customers, energy, peak demand and base rate revenues. Forecasts of monthly customers, energy sales, supply and peak demand are produced for both the short-term (0-5 years) and long-term (6-25 years). Base rate revenue projections are prepared for the short-term horizon. A description of the methods used in the development of these forecasts follows.

## I. CUSTOMER FORECAST

### A. Residential Customer Forecast

The immediate short-term forecast (0-2 years) of customers is based primarily on projections prepared by division personnel. The divisions remain abreast of local market and economic conditions within their service territories through direct contact with developers, builders, lending institutions and other key contacts. The immediate short-term forecasts prepared by the divisions, which are developed through various forecasting methods, are analyzed for consistency and the incorporation of major construction projects and business developments is reviewed. The end result is a near-term forecast of residential customers by type of dwelling.

For the remaining forecast horizon (3-25 years), the residential customers are modeled as a function of adult population and real per capita disposable income. Population projections are based on an age cohort survival technique in which the baseline population is aged over time, with net population changes occurring through the application of appropriate birth rates, survival rates and net migration estimates. Existing population levels are based on data published by the Bureau of Economic and Business Research (BEBR) at the University of Florida (Bulletin No. 68), and the Census Bureau. Net migration projections are produced using BEBR State of Florida net migration estimates as a basis, applying county-specific assumptions regarding share of state net migration to

each of the eight counties in Gulf's retail service area. These county net migration assumptions are based on an analysis of 1970 through 1986 data, and reflect a slowdown beginning in 1989 due to expected zoning and restrictions on land development at the local level. The residential customer model provides quarterly estimates, which are translated to a monthly basis using historical ratios. Long-term housing stock breakdowns are based on Data Resources, Inc. (DRI) long-term forecast of housing starts by type of dwelling.

B. Commercial Customer Forecast

The immediate short-term forecast (0-2 years) of commercial customers, as in the residential sector, is prepared by the divisions. A review of the assumptions, techniques and results for each division is undertaken, with special attention given to the incorporation of new major commercial establishments.

Beyond the immediate short-term period, commercial customers are forecast as a function of residential customers, reflecting the growth of commercial services to meet the needs of new residents. Implicit in the commercial customer forecast is the relationship between growth in total real disposable income and growth in the commercial sector. The seasonal pattern observed due to the "tourism-oriented" nature of many commercial businesses is captured through the use of a binary shift variable in the regression equation.

## III. ENERGY SALES FORECAST

### A. Residential Sales Forecast

The residential energy sales forecast is prepared using the Residential End-Use Energy Planning System (REEPS), a model developed for the Electric Power Research Institute (EPRI) by Cambridge Systematics, Incorporated, under Project RP1211-2. The REEPS model integrates elements of both econometric and engineering end-use approaches to energy forecasting. Market penetrations and energy consumption rates for major appliance end-uses are treated explicitly. REEPS produces forecasts of appliance installations, operating efficiencies and utilization patterns for space heating, water heating, air conditioning and cooking, as well as other major end-uses. Each of these decisions is responsive to energy prices and conservation policies, as well as household/dwelling characteristics and geographical variables.

The major behavioral responses in the simulation model have been estimated statistically from an analysis of household survey data. Surveys provide the uniquely rich data source necessary to identify the responsiveness of household energy decisions to prices and other variables.

The REEPS model forecasts energy decisions for a large number of different population segments. These segments represent households with different demographic and dwelling characteristics. Together, the population segments reflect the full joint distribution of characteristics in the customer population. The total service area forecast of residential

energy decisions is represented as the sum of the choices of various segments. This approach not only provides aggregate forecasts which are consistent with disaggregate projections, but also permits evaluation of the distributional impacts of prospective energy policies.

For each of the major end-uses, REEPS forecasts acquisitions, efficiency and utilization choices. The model distinguishes among appliance installations in new housing, retrofit installations and purchases of portable units. Within the simulation, the probability of installing a given appliance in a new dwelling depends on the operating and performance characteristics of the competing alternatives, as well as household and dwelling features. The installation probabilities for certain end-use categories are highly interdependent.

The functional form of the appliance installation models is the multinomial logit or its generalization, the nested logit. The parameters of these models quantify the sensitivity of appliance installation choices to costs and other characteristics. The magnitudes of these parameters have been estimated statistically from household survey data.

Appliance operating efficiency and utilization rates are simulated in the REEPS model as interdependent decisions. Efficiency choice is dependent on operating cost at the planned utilization rate, while actual utilization depends on operating cost given the appliance efficiency. Appliance and building standards affect efficiency directly by mandating higher levels than those desired.

The sensitivity of efficiency and utilization decisions to costs, climate, household and dwelling size, and income has been

estimated from historical survey data. Energy prices, income, and household and dwelling size significantly affect space conditioning and residual energy use. Household and dwelling size also influence water heating usage. Climate significantly impacts space heating and air conditioning.

Major appliance base year unit energy consumption (UEC) estimates are based on either metered appliance data or conditioned energy demand regression analysis. The latter is a technique employed in the absence of metered observations of individual appliance usage, and involves the disaggregation of total household demand for electricity into appliance specific demand functions.

Conditional energy demand models are multivariate regressions which explain residential customers' demands for electricity as functions of the energy-using equipment that they own, weather conditions, demographic and dwelling characteristics, and other factors playing a major role in total household energy consumption. The mathematics underlying this method rely upon the rather simple idea that consumption through a particular end-use must be zero if the end-use is not present, and if the end-use is present, energy consumption levels might be viewed as dependent on weather, demographics, income and other variables.

The total electrical energy consumption, E, of a household can be represented as:

$$E = E_0 + \sum_{i=1}^{N} E_i$$

Where $E_i$ is the electrical energy consumed by a specified major appliance i, and $E_o$ is the electrical energy consumed by the remaining, unspecified set of appliances. The methodology of conditional energy demand analysis produces cross sectional, ordinary least squares regression estimates of the appliance coefficients. The regressions were performed using input data from the Gulf Power Company 1986 Residential Market Survey, billing cycle monthly energy data, and billing cycle monthly weather data.

B. Commercial Sales Forecast

COMMEND, a commercial end-use model developed by the Georgia Institute of Technology through EPRI Project RP1216-06, serves as the basis for the major portion of Gulf's commercial energy sales forecast.

The COMMEND model is an extension of the capital-stock approach used in most econometric studies. This approach views the demand for energy as a product of three factors. The first of these factors is the physical stock of energy-using capital, the second factor is base year energy use, and the third is a utilization factor representing utilization of equipment relative to the base year.

Changes in equipment utilization are modeled using short-run econometric fuel price elasticities. Fuel choice is forecast with a life-cycle cost/behavioral microsimulation submodel, and changes in equipment efficiency are determined using engineering and cost information for space heating, cooling and ventilation

equipment and econometric elasticity estimates for the other end-uses (lighting, water heating, ventilation, cooking, refrigeration, and others).

Three characteristics of COMMEND distinguish it from traditional modeling approaches. First, the reliance on engineering relationships to determine future heating and cooling efficiency provides a sounder basis for forecasting long-run changes in space heating and cooling energy requirements than a pure econometric approach can supply. Second, the simulation model uses a variety of engineering data on the energy-using characteristics of commercial buildings. Third, COMMEND provides estimates of energy use detailed by end-use, fuel type and building type.

Gulf's most recent Commercial Market Survey, conducted in 1984, provided much of the input data required for the COMMEND model. The model produces forecasts of energy use for the end-uses mentioned above, within each of the following business categories:

1. Food Stores
2. Offices
3. Retail and Personal Services
4. Public Utilities
5. Automotive Services
6. Restaurants
7. Elementary/Secondary Schools
8. Colleges/Trade Schools
9. Hospitals/Health Services
10. Hotels/Motels
11. Religious Organizations
12. Miscellaneous

C. Industrial Sales Forecast

The short-term industrial energy sales forecast is developed using a combination of on-site surveys of major industrial customers, trending techniques, and multiple regression analysis. Forty-two of Gulf's largest industrial customers are interviewed to identify load changes due to equipment addition, replacement or changes in operating characteristics.

The short-term forecast of monthly sales to these major industrial customers is a synthesis of the detailed survey information and historical monthly load factor trends. The forecast of short-term sales to the remaining smaller industrial customers is developed using multiple regression analysis.

The long-term forecast of industrial energy sales is based on econometric models of the chemical, pulp and paper, other manufacturing, and non-manufacturing sectors. The industrial forecast is further refined by accounting for expected cogeneration installations, and a supplemental energy rate.

D. Street Lighting Sales Forecast

The forecast of monthly energy sales to street lighting customers is based on projections of the number of fixtures in service, for each of the following fixture types:

| HIGH PRESSURE SODIUM VAPOR | MERCURY VAPOR |
|---|---|
| 5,400 Lumen | 3,200 Lumen |
| 8,800 Lumen | 7,000 Lumen |
| 20,000 Lumen | 9,400 Lumen |
| 25,000 Lumen | 17,000 Lumen |
| 46,000 Lumen | 48,000 Lumen |

In the short-term, the estimated monthly kilowatt-hour consumption for each fixture type is multiplied by the projected number of fixtures in service to produce total monthly sales for a given type of fixture. This methodology allows Gulf to explicitly evaluate the impacts of lighting programs, such as mercury to high pressure sodium conversions. In the long-term, kilowatt-hour consumption grows at the same rate as projected fixture growth which, in itself, is modeled as a function of projected residential customer growth.

E. Wholesale Energy Forecast

The short-term forecast of energy sales to wholesale customers is based on interviews with these customers, as well as recent historical data. A forecast of total monthly energy requirements at each wholesale delivery point is produced. Energy requirements purchased from the Southeastern Power Administration (based on current contracts) by our wholesale customers are then removed from the total requirements to arrive at sales for resale.

The long-term forecast is based on estimates of annual growth rates for each delivery point, according to future growth potential.

## III. PEAK DEMAND FORECAST

The peak demand forecast is prepared using the Hourly Electric Load Model (HELM), developed by ICF, Incorporated, for EPRI under Project RP1955-1. The model forecasts hourly electrical loads over the long term.

Load curve forecasts have always provided an important input to traditional system planning functions. Forecasts of the pattern of demand have acquired an added importance due to structural changes in the demand for electricity and increased utility involvement in influencing load patterns for the mutual benefit of the utility and its customers.

The underlying structure of electricity consumption has changed in several respects. Rapid increases in energy prices during the 1970's and early 1980's brought about changes in the efficiency of energy-using equipment. Additionally, sociodemographic and microeconomic developments have changed the composition of electricity consumption, including changes in fuel shares, housing mix, household age and size, construction features, mix of commercial services, and mix of industrial products.

In addition to these naturally occurring structural changes, utilities have become increasingly active in offering customers options which result in modified consumption patterns. An important input to the design of such demand-side programs is an assessment of their likely impact on utility system loads.

HELM has been designed to forecast electric utility load curves and to analyze the impacts of factors such as alternative weather conditions, customer mix changes, fuel share changes, and demand-

side programs. The structural detail of HELM provides forecasts of hourly class and system load curves by weighting and aggregating load shapes for individual end-use components.

Model inputs include energy forecasts and load shape data for the user-specified end-uses. Inputs are also required to reflect new technologies, rate structures and other demand-side programs. Model outputs include hourly system and class load curves, load duration curves, monthly system and class peaks, load factors and energy requirements by season and rating period.

The methodology embedded in HELM may be referred to as a "bottom-up" approach. Class and system load shapes are calculated by aggregating the load shapes of component end-uses. The system demand for electricity in hour i is modeled as the sum of demands by each end-use in hour i:

$$L_i = \sum_{R=1}^{N_R} L_{R,i} + \sum_{C=1}^{N_C} L_{C,i} + \sum_{I=1}^{N_I} L_{I,i} + Misc_i$$

Where: $L_i$ = system demand for electricity in hour i;

$N_R$ = number of residential end-use loads;

$N_C$ = number of commercial end-use loads;

$N_I$ = number of industrial end-use loads;

$L_{R,i}$ = demand for electricity by residential end-use R in hour i;

$L_{C,i}$ = demand for electricity by commercial end-use R in hour i:

$L_{I,i}$ = demand for electricity by industrial end-use R in hour i;

$Misc_i$ = other demands (wholesale, street lighting, losses, Company use) in hour i.

## COMPANY USE & INTERDEPARTMENTAL ENERGY

The 1988 Annual Forecast for Company and Interdepartmental energy usage was based on recent historical values, with appropriate adjustments to reflect the difference in energy requirements through 1988, for new Company facilities. The 1988 forecasted Company usage was then projected through the year 2012, at the same growth rate each year as the growth in residential customers. The monthly spreads were derived using historical relationships between monthly and annual energy usage.

## NEW FACILITIES

| Facility | Est. In Service | Est. KW Demand | Est. Additional Annual MWH's |
|---|---|---|---|
| New General Office Pensacola | APR, 1987 | 1,650 | 7,000 |

## SMALL POWER PRODUCTION

The current forecasts also consider Gulf's active position in the promotion of renewable energy resources, the most recent examples being our involvement in two waste-to-energy facilities located within our service area. Not only has Gulf aided in the initial stages of planning, installation and operation of these facilities, the Company has initiated preliminary studies to assess the feasibility of construction of other waste disposal units at various sites in Northwest Florida. Below is a list of the cumulative small power producer capability anticipated in the base case forecast. This includes both waste-to-energy projects and other renewable fuel projects.

| Year | Small Power Producers Net Capability (MW) | Year | Small Power Producers Net Capability (MW) |
|---|---|---|---|
| 1988 | 11.5 | 2001 | 45.0 |
| 1989 | 11.5 | 2002 | 50.0 |
| 1990 | 11.5 | 2003 | 50.0 |
| 1991 | 16.5 | 2004 | 50.0 |
| 1992 | 25.0 | 2005 | 50.0 |
| 1993 | 25.0 | 2006 | 50.0 |
| 1994 | 25.0 | 2007 | 50.0 |
| 1995 | 35.0 | 2008 | 50.0 |
| 1996 | 35.0 | 2009 | 50.0 |
| 1997 | 35.0 | 2010 | 50.0 |
| 1998 | 40.0 | 2011 | 50.0 |
| 1999 | 45.0 | 2012 | 50.0 |
| 2000 | 45.0 | | |

# CHAPTER III

# FORECAST
# OF
# FACILITIES REQUIREMENTS

TYP FORM 6

UTILITY: GULF POWER COMPANY

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Fuel | | Const | Com'l In- | Gen Max | Net Capability | | Fuel Transp | | |
| Plant Name | Unit No. | Location | Type | Pri | Alt | Start Mo/Yr | Service Mo/Yr | Nameplate KW | Summer MW | Winter MW | Pri | Alt | Status |
| Caryville | A | Caryville, FL | CT | NG | LO | 1992 | 4/95 | 126,000 | 126.0 | 126.0 | PL | TK | P |
| | | | | | | | TOTAL | | 126.0 | 126.0 | | | |

Abbreviations: CT - Combustion Turbine
NG - Natural Gas
LO - Light Oil
PL - Pipeline
TK - Truck
P - Planned, but not authorized by utility

TYP FORM 7A

UTILITY: GULF POWER COMPANY

FORECAST OF CAPACITY, DEMAND, AND SCHEDULED MAINTENANCE
AT TIME OF SUMMER PEAK (A)

| YEAR | TOTAL INSTALLED CAPACITY MW | FIRM CAPACITY IMPORT MW (B) | TOTAL AVAILABLE CAPACITY MW | FIRM PEAK DEMAND MW | MARGIN BEFORE MAINTENANCE MW | MARGIN BEFORE MAINTENANCE PER CENT OF PEAK | SCHEDULED MAINTENANCE MW | MARGIN AFTER MAINTENANCE MW | MARGIN AFTER MAINTENANCE PER CENT OF PEAK |
|---|---|---|---|---|---|---|---|---|---|
| 1988 | 2305 | (635) | 1670 | 1683 | (13) | (-0.8%) | | (13) | (-0.8%) |
| 1989 | 2295 | (159) | 2136 | 1749 | 387 | 22.1% | NONE | 387 | 22.1% |
| 1990 | 2295 | (158) | 2137 | 1814 | 323 | 17.8% | | 323 | 17.8% |
| 1991 | 2295 | (173) | 2122 | 1864 | 258 | 13.8% | | 258 | 13.8% |
| 1992 | 2295 | (180) | 2115 | 1903 | 212 | 11.1% | | 212 | 11.1% |
| 1993 | 2295 | (124) | 2171 | 1911 | 260 | 13.6% | | 260 | 13.6% |
| 1994 | 2295 | (56) | 2239 | 1954 | 285 | 14.6% | | 285 | 14.6% |
| 1995 | 2431 | 11 | 2442 | 1992 | 450 | 22.6% | | 450 | 22.6% |
| 1996 | 2431 | 11 | 2442 | 2033 | 409 | 20.1% | | 409 | 20.1% |
| 1997 | 2431 | 11 | 2442 | 2068 | 374 | 18.1% | | 374 | 18.1% |

NOTE: (A) CAPACITY ALLOCATIONS AND CHANGES MUST BE MADE BY JUNE 30 TO BE CONSIDERED IN EFFECT AT THE TIME OF THE SUMMER PEAK. ALL VALUES ARE SUMMER NET MW.

(B) INCLUDES ALL CAPACITY SOLD IN EXISTING UNIT POWER SALES CONTRACTS AND CONTRACTED CAPACITY ALLOCATED TO CERTAIN RESALE CUSTOMERS BY THE SOUTHEASTERN POWER ADMINISTRATION (SEPA).

TYP FORM 7B

UTILITY: GULF POWER COMPANY

FORECAST OF CAPACITY, DEMAND, AND SCHEDULED MAINTENANCE
AT TIME OF WINTER PEAK (A)

| YEAR | TOTAL INSTALLED CAPACITY MW | FIRM CAPACITY IMPORT MW (B) | TOTAL AVAILABLE CAPACITY MW | FIRM PEAK DEMAND MW | MARGIN BEFORE MAINTENANCE MW | MARGIN BEFORE MAINTENANCE PER CENT OF PEAK | SCHEDULED MAINTENANCE MW | MARGIN AFTER MAINTENANCE MW | MARGIN AFTER MAINTENANCE PER CENT OF PEAK |
|---|---|---|---|---|---|---|---|---|---|
| 1988-89 | 2308 | (623) | 1685 | 1504 | 181 | 12.0% | NOT AVAILABLE | 181 | 12.0% |
| 1989-90 | 2298 | (159) | 2139 | 1553 | 586 | 37.7% | | 586 | 37.7% |
| 1990-91 | 2298 | (158) | 2140 | 1595 | 545 | 34.2% | | 545 | 34.2% |
| 1991-92 | 2298 | (173) | 2125 | 1638 | 487 | 29.7% | | 487 | 29.7% |
| 1992-93 | 2298 | (156) | 2142 | 1641 | 501 | 30.5% | | 501 | 30.5% |
| 1993-94 | 2298 | (124) | 2174 | 1695 | 479 | 28.3% | | 479 | 28.3% |
| 1994-95 | 2298 | (56) | 2242 | 1725 | 517 | 30.0% | | 517 | 30.0% |
| 1995-96 | 2434 | 11 | 2445 | 1762 | 683 | 38.8% | | 683 | 38.8% |
| 1996-97 | 2434 | 11 | 2445 | 1802 | 643 | 35.7% | | 643 | 35.7% |
| 1997-98 | 2434 | 11 | 2445 | 1842 | 603 | 32.7% | | 603 | 32.7% |

NOTE: (A) CAPACITY ALLOCATIONS AND CHANGES MUST BE MADE BY NOVEMBER 30 TO BE CONSIDERED IN EFFECT AT THE TIME OF WINTER PEAK. ALL VALUES ARE WINTER NET MW.

(B) INCLUDES ALL CAPACITY SOLD IN EXISTING UNIT POWER SALES CONTRACTS, AND CONTRACTED CAPACITY ALLOCATED TO CERTAIN RESALE CUSTOMERS BY THE SOUTHEASTERN POWER ADMINISTRATION (SEPA).

## AVAILABILITY OF PURCHASED POWER

Gulf Power Company coordinates its planning and operation with the other operating companies of the Southern electric system: Alabama Power Company, Georgia Power Company, and Mississippi Power Company. In any year an individual operating company may have a temporary surplus or deficit in generating capacity, depending on the relationship of its planned generating capacity to its load and reserve responsibility. Each company buys or sells its temporary deficit or surplus capacity from or to the pool. This is done through the mechanism of an Intercompany Interchange Contract among the companies, which is reviewed and updated annually.

## OFF SYSTEM SALES

### Unit Power Sales

Gulf Power Company, along with the other Southern operating companies, have negotiated the sales of capacity and energy to several utilities outside the Southern system. The term of the contracts started prior to 1988 and extends into 1995. Gulf's share of the capacity and energy sales varies from year to year and is reflected in the reserves on Forms 7A and 7B and the energy and fuel use on Forms 3A and 3B.

Long Term Sales

Contracts have also been finalized for the sale of non-firm capacity and energy through 2000. Reserves shown in this filing have not been reduced for this capacity; however, the energy sales have been reflected on Forms 3A and 3B.

# CHAPTER IV

# SITE DESCRIPTION
# AND
# IMPACT ANALYSIS

Utility: Gulf Power Company

Status Report
Specifications of Proposed Generating Facilities

| | | |
|---|---|---|
| (1) | Plant Name & Unit | Caryville A |
| (2) | Status | This facility is planned but not authorized |
| (3) | Anticipated Construction Timing | In-Service April, 1995 |
| (4) | Capacity | Summer 126.0 MW<br>Winter 126.0 MW |
| (5) | Type | Combustion Turbine |
| (6) | Primary and Alternate Fuel | Primary - Natural Gas; Alternate - Light Oil (distillate) |
| (7) | Air Pollution Control Strategy | Steam Injection for NOx control |
| (8) | Cooling Method | NA |
| (9) | Total Site Area | Unknown |
| (10) | Anticipated Capital Investment | $ 52,800,000 |
| (11) | Certification Status | Not applied |
| (12) | Status with Federal Agencies | Not applied |

Utility: Gulf Power Company

Status Report and Specifications of Proposed
Directly-Associated Transmission Lines

| | |
|---|---|
| (1) Point of Origin and Termination | From Caryville site to the existing Smith - Shoal River 230 KV line |
| (2) Number of Lines | Two (2) |
| (3) Right-of-Way | Length: 14.0 miles<br>Width: 225.0 feet (average) |
| (4) Line Length | 14.0 miles each |
| (5) Voltage | 230 KV |
| (6) Anticipated Construction Timing | In-Service January, 1995 |
| (7) Anticipated Capital Investment | $17,800,000 |
| (8) Substations | None |
| (9) Participation | None |