ORIGINAL

Florida Power
CORPORATION

JAMES A. MCGEE
SENIOR COUNSEL

August 1, 2000

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SAFETY & ELECTRIC RELIABILITY

Mr. Michael Haff
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Ten-Year Site Plan

Dear Mr. Haff:

Enclosed is Florida Power Corporation's response to Staff's first and second request for supplemental information on generation expansion plans. If you have any questions, please feel free to contact me.

Very truly yours,

James A. McGee

JAM/kbd

Enclosure
cc: Mr. Joseph Jenkins

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FPSC-RECORDS/REPORTING

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*A Florida Progress Company*

# Florida Public Service Commission

# Supplemental Data Requests

# (Questions 1 through 17)

# Florida Power Corporation's

# 2000 Ten-Year Site Plan

**August, 2000**

**1. Provide all data requested on the attached forms. If any of the requested data is already included in FPC's Ten-Year Site Plan, state so on the appropriate form.**

Information from FPC's 2000 Ten-Year Site Plan was used to complete the attached requested data forms.

FLORIDA POWER CORPORATION

EXISTING GENERATING UNIT OPERATING PERFORMANCE

| (1) | (2) | (3) | | (4) | | (5) | | (6) | |
|---|---|---|---|---|---|---|---|---|---|
| | UNIT | PLANNED OUTAGE FACTOR (POF) % | | FORCED OUTAGE FACTOR (FOF) % | | EQUIVALENT AVAILABILITY FACTOR (EAF) % | | AVERAGE NET OPERATING HEAT RATE (ANOHR) BTU/KWH | |
| PLANT NAME | NO. | HISTORICAL | PROJECTED | HISTORICAL | PROJECTED | HISTORICAL | PROJECTED | HISTORICAL | PROJECTED |
| ANCLOTE | 1 | 9.32 | 9.32 | 0.94 | 0.94 | 85.96 | 85.96 | 10,007 | 10,062 |
| | 2 | 6.63 | 6.63 | 0.48 | 0.48 | 85.31 | 85.31 | 9,959 | 10,032 |
| AVON PARK | P1-P2 | 5.29 | 5.29 | 10.77 | 10.77 | 85.21 | 85.21 | 16,849 | 17,456 |
| BARTOW | 1 | 10.36 | 10.36 | 2.56 | 2.56 | 82.41 | 82.41 | 10,619 | 10,276 |
| | 2 | 9.72 | 9.72 | 2.59 | 2.59 | 84.04 | 84.04 | 10,599 | 10,459 |
| | 3 | 6.38 | 6.38 | 2.21 | 2.21 | 87.12 | 87.12 | 9,986 | 10,072 |
| BARTOW | P1-P4 | 6.59 | 6.59 | 4.98 | 4.98 | 87.54 | 87.54 | 15,087 | 16,278 |
| BAYBORO | P1-P4 | 4.01 | 4.01 | 0.92 | 0.92 | 96.68 | 96.68 | 13,505 | 14,347 |
| CRYSTAL | 1 | 7.32 | 7.32 | 1.52 | 1.52 | 83.01 | 83.01 | 9,832 | 9,684 |
| RIVER | 2 | 3.25 | 3.25 | 6.32 | 6.32 | 85.32 | 85.32 | 9,754 | 9,714 |
| | 3 | 3.81 | 5.50 | 37.25 | 3.30 | 57.84 | 86.76 | 10,372 | 10,365 |
| | 4 | 4.20 | 4.20 | 3.72 | 3.72 | 89.09 | 89.09 | 9,446 | 9,464 |
| | 5 | 8.26 | 8.26 | 1.39 | 1.39 | 88.69 | 88.69 | 9,389 | 9,422 |
| DEBARY | P1-P10 | 3.83 | 3.83 | 0.70 | 0.70 | 94.50 | 94.50 | 13,938 | 15,175 |
| HIGGINS | P1-P4 | 4.60 | 4.60 | 3.11 | 3.11 | 92.29 | 92.29 | 16,613 | 17,473 |
| HINES ENERGY COMPLEX | 1 | 14.51 | 4.41 | 2.56 | 3.70 | 76.61 | 91.00 | 7,306 | 7,122 |
| INTERCESSION CITY | P1-P11 | 2.79 | 2.79 | 2.97 | 2.97 | 93.59 | 93.59 | 13,594 | 14,089 |
| RIO PINAR | P1 | 0.00 | 0.00 | 2.01 | 2.01 | 97.79 | 97.79 | 18,378 | 17,807 |
| SUWANNEE | 1 | 0.00 | 0.00 | 0.19 | 0.19 | 99.59 | 99.59 | 12,660 | 12,097 |
| | 2 | 0.00 | 0.00 | 0.00 | 0.00 | 99.81 | 99.81 | 12,789 | 13,206 |
| | 3 | 6.69 | 6.69 | 3.60 | 3.60 | 89.44 | 89.44 | 11,209 | 10,782 |
| SUWANNEE | P1-P3 | 7.65 | 7.65 | 0.13 | 0.13 | 86.00 | 86.00 | 14,626 | 14,022 |
| TIGER BAY | 1 | 4.38 | 4.38 | 3.19 | 3.19 | 91.03 | 91.03 | 7,763 | 7,761 |
| TURNER | P1-P4 | 4.71 | 4.71 | 1.97 | 1.97 | 90.79 | 90.79 | 16,903 | 17,102 |
| UNIV. OF FLA. | P1 | 1.70 | 1.70 | 16.02 | 16.02 | 78.30 | 78.30 | 8,897 | 9,470 |

NOTE : HISTORICAL - AVERAGE OF PAST THREE YEARS
PROJECTED - AVERAGE OF NEXT TEN YEARS

NOMINAL, DELIVERED RESIDUAL OIL PRICES
BASE CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| | RESIDUAL OIL (BY SULFUR CONTENT) | | | | | | | | |
| | LESS THAN 0.7% | | ESCALATION | 0.7 - 2.0% | | ESCALATION | GREATER THAN 2.0% | | ESCALATION |
| YEAR | $/BBL | c/MBTU | % | $/BBL | c/MBTU | % | $/BBL | c/MBTU | % |
| | | | | 1 / | 1 / | | | | |
| 1997 | | DATA | | 16.13 | 252.00 | | | DATA | |
| 1998 | | NOT | | 12.61 | 194.00 | -23.02 | | NOT | |
| 1999 | | AVAILABLE | | 13.78 | 212.00 | 9.28 | | AVAILABLE | |
| | | | | 2 / | 2 / | | 3 / | 3 / | |
| 2000 | | | | 17.81 | 274.00 | | 17.62 | 271.00 | |
| 2001 | | | | 17.49 | 269.00 | -1.82 | 15.80 | 243.00 | -10.33 |
| 2002 | | | | 17.23 | 265.00 | -1.49 | 15.60 | 240.00 | -1.23 |
| 2003 | | | | 17.23 | 265.00 | 0.00 | 15.60 | 240.00 | 0.00 |
| 2004 | | NOT | | 17.36 | 267.00 | 0.75 | 15.73 | 242.00 | 0.83 |
| 2005 | | APPLICABLE | | 17.62 | 271.00 | 1.50 | 15.93 | 245.00 | 1.24 |
| 2006 | | | | 18.01 | 277.00 | 2.21 | 16.25 | 250.00 | 2.04 |
| 2007 | | | | 18.40 | 283.00 | 2.17 | 16.64 | 256.00 | 2.40 |
| 2008 | | | | 18.79 | 289.00 | 2.12 | 16.97 | 261.00 | 1.95 |
| 2009 | | | | 19.24 | 296.00 | 2.42 | 17.36 | 267.00 | 2.30 |

HEAT CONTENT < 0.7% RESIDUAL OIL = N/A MBTU/BBL
HEAT CONTENT 0.7 - 2.0% RESIDUAL OIL = 6.50 MBTU/BBL
HEAT CONTENT > 2.0% RESIDUAL OIL = 6.50 MBTU/BBL

ASH CONTENT < 0.7% RESIDUAL OIL = N/A PERCENT
ASH CONTENT 0.7 - 2.0% RESIDUAL OIL = 0.10 PERCENT
ASH CONTENT > 2.0% RESIDUAL OIL = 0.10 PERCENT

NOTES: 1 / TOTAL RESIDUAL OIL AS BURNED - APPROXIMATE
2 / 1.0% SULFUR
3 / 2.5% SULFUR

NOMINAL, DELIVERED RESIDUAL OIL PRICES
HIGH CASE

RESIDUAL OIL (BY SULFUR CONTENT)

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| | LESS THAN 0.7% | | | 0.7 - 2.0% | | | GREATER THAN 2.0% | | |
| YEAR | $/BBL | c/MBTU | ESCALATION % | $/BBL | c/MBTU | ESCALATION % | $/BBL | c/MBTU | ESCALATION % |
| 1997 | | DATA | | | SEE | | | DATA | |
| 1998 | | NOT | | | BASE | | | NOT | |
| 1999 | | AVAILABLE | | | CASE | | | AVAILABLE | |
| | | | | 1 / | 1 / | | 2 / | 2 / | |
| 2000 | | | | 19.18 | 295.00 | | 17.88 | 275.00 | |
| 2001 | | | | 18.85 | 290.00 | -1.69 | 16.90 | 260.00 | -5.45 |
| 2002 | | | | 18.85 | 290.00 | 0.00 | 16.90 | 260.00 | 0.00 |
| 2003 | | | | 18.85 | 290.00 | 0.00 | 16.90 | 260.00 | 0.00 |
| 2004 | | NOT | | 19.18 | 295.00 | 1.72 | 17.23 | 265.00 | 1.92 |
| 2005 | | APPLICABLE | | 19.50 | 300.00 | 1.69 | 17.55 | 270.00 | 1.89 |
| 2006 | | | | 20.48 | 315.00 | 5.00 | 19.18 | 295.00 | 9.26 |
| 2007 | | | | 20.80 | 320.00 | 1.59 | 19.50 | 300.00 | 1.69 |
| 2008 | | | | 21.45 | 330.00 | 3.13 | 20.15 | 310.00 | 3.33 |
| 2009 | | | | 22.10 | 340.00 | 3.03 | 20.80 | 320.00 | 3.23 |

HEAT CONTENT < 0.7% RESIDUAL OIL = N/A MBTU/BBL
HEAT CONTENT 0.7 - 2.0% RESIDUAL OIL = 6.50 MBTU/BBL
HEAT CONTENT > 2.0% RESIDUAL OIL = 6.50 MBTU/BBL

ASH CONTENT < 0.7% RESIDUAL OIL = N/A PERCENT
ASH CONTENT 0.7 - 2.0% RESIDUAL OIL = 0.10 PERCENT
ASH CONTENT > 2.0% RESIDUAL OIL = 0.10 PERCENT

NOTES: 1 / 1.0% SULFUR
2 / 2.5% SULFUR

NOMINAL, DELIVERED RESIDUAL OIL PRICES
LOW CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| | RESIDUAL OIL (BY SULFUR CONTENT) | | | | | | | | |
| | LESS THAN 0.7% | | ESCALATION | 0.7 - 2.0% | | ESCALATION | GREATER THAN 2.0% | | ESCALATION |
| YEAR | $/BBL | c/MBTU | % | $/BBL | c/MBTU | % | $/BBL | c/MBTU | % |
| 1997 | | DATA | | | SEE | | | DATA | |
| 1998 | | NOT | | | BASE | | | NOT | |
| 1999 | | AVAILABLE | | | CASE | | | AVAILABLE | |
| | | | | 1 / | 1 / | | 2 / | 2 / | |
| 2000 | | | | 14.95 | 230.00 | | 13.65 | 210.00 | |
| 2001 | | | | 14.30 | 220.00 | -4.35 | 13.00 | 200.00 | -4.76 |
| 2002 | | | | 15.60 | 240.00 | 9.09 | 14.30 | 220.00 | 10.00 |
| 2003 | | | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2004 | | NOT | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2005 | | APPLICABLE | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2006 | | | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2007 | | | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2008 | | | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |
| 2009 | | | | 15.60 | 240.00 | 0.00 | 14.30 | 220.00 | 0.00 |

HEAT CONTENT < 0.7% RESIDUAL OIL = N/A MBTU/BBL
HEAT CONTENT 0.7 - 2.0% RESIDUAL OIL = 6.50 MBTU/BBL
HEAT CONTENT > 2.0% RESIDUAL OIL = 6.50 MBTU/BBL

ASH CONTENT < 0.7% RESIDUAL OIL = N/A PERCENT
ASH CONTENT 0.7 - 2.0% RESIDUAL OIL = 0.10 PERCENT
ASH CONTENT > 2.0% RESIDUAL OIL = 0.10 PERCENT

NOTES: 1 / 1.0% SULFUR
2 / 2.5% SULFUR

NOMINAL, DELIVERED DISTILLATE OIL and NATURAL GAS PRICES
BASE CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | DISTILLATE OIL | | | NATURAL GAS | | |
| YEAR | $/BBL | c/MBTU | ESCALATION % | c/MBTU | c/THERM | ESCALATION % |
| | 1 / | 1 / | | | | |
| 1997 | 27.55 | 475.00 | | 287.00 | 28.70 | |
| 1998 | 21.52 | 371.00 | -21.89 | 291.00 | 29.10 | 1.39 |
| 1999 | 22.04 | 380.00 | 2.43 | 299.00 | 29.90 | 2.75 |
| | 2 / | 2 / | | 3 / | 3 / | |
| 2000 | 29.12 | 502.00 | | 261.00 | 26.10 | |
| 2001 | 27.61 | 476.00 | -5.18 | 259.00 | 25.90 | -0.77 |
| 2002 | 27.49 | 474.00 | -0.42 | 263.00 | 26.30 | 1.54 |
| 2003 | 27.67 | 477.00 | 0.63 | 271.00 | 27.10 | 3.04 |
| 2004 | 27.90 | 481.00 | 0.84 | 280.00 | 28.00 | 3.32 |
| 2005 | 28.36 | 489.00 | 1.66 | 288.00 | 28.80 | 2.86 |
| 2006 | 28.94 | 499.00 | 2.04 | 294.00 | 29.40 | 2.08 |
| 2007 | 29.58 | 510.00 | 2.20 | 301.00 | 30.10 | 2.38 |
| 2008 | 30.22 | 521.00 | 2.16 | 307.00 | 30.70 | 1.99 |
| 2009 | 30.80 | 531.00 | 1.92 | 314.00 | 31.40 | 2.28 |

HEAT CONTENT DISTILLATE OIL = 5.80 MBTU/BBL

ASH CONTENT DISTILLATE OIL = 0.00 PERCENT

NOTES: 1 / AS BURNED DATA - APPROXIMATE
2 / WITHOUT INLAND FREIGHT - 0.5% SULFUR
3 / SUPPLY COST ONLY

NOMINAL, DELIVERED DISTILLATE OIL and NATURAL GAS PRICES
HIGH CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | DISTILLATE OIL | | | NATURAL GAS | | |
| YEAR | $/BBL | c/MBTU | ESCALATION % | c/MBTU | c/THERM | ESCALATION % |
| 1997 | | SEE | | | SEE | |
| 1998 | | BASE | | | BASE | |
| 1999 | | CASE | | | CASE | |
| | 1 / | 1 / | | 2 / | 2 / | |
| 2000 | 30.45 | 525.00 | | 283.00 | 28.30 | |
| 2001 | 28.13 | 485.00 | -7.62 | 300.00 | 30.00 | 6.01 |
| 2002 | 28.13 | 485.00 | 0.00 | 300.00 | 30.00 | 0.00 |
| 2003 | 28.71 | 495.00 | 2.06 | 310.00 | 31.00 | 3.33 |
| 2004 | 29.00 | 500.00 | 1.01 | 320.00 | 32.00 | 3.23 |
| 2005 | 29.87 | 515.00 | 3.00 | 330.00 | 33.00 | 3.13 |
| 2006 | 31.32 | 540.00 | 4.85 | 330.00 | 33.00 | 0.00 |
| 2007 | 31.90 | 550.00 | 1.85 | 330.00 | 33.00 | 0.00 |
| 2008 | 32.48 | 560.00 | 1.82 | 330.00 | 33.00 | 0.00 |
| 2009 | 33.93 | 585.00 | 4.46 | 330.00 | 33.00 | 0.00 |

HEAT CONTENT DISTILLATE OIL = 5.80 MBTU/BBL

ASH CONTENT DISTILLATE OIL = 0.00 PERCENT

NOTES: 1 / WITHOUT INLAND FREIGHT - 0.5% SULFUR
2 / SUPPLY COST ONLY

NOMINAL, DELIVERED DISTILLATE OIL and NATURAL GAS PRICES
LOW CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | DISTILLATE OIL | | | NATURAL GAS | | |
| YEAR | $/BBL | c/MBTU | ESCALATION % | c/MBTU | c/THERM | ESCALATION % |
| 1997 | | SEE | | | SEE | |
| 1998 | | BASE | | | BASE | |
| 1999 | | CASE | | | CASE | |
| | 1 / | 1 / | | 2 / | 2 / | |
| 2000 | 24.48 | 422.00 | | 228.00 | 22.80 | |
| 2001 | 23.20 | 400.00 | -5.21 | 220.00 | 22.00 | -3.51 |
| 2002 | 25.52 | 440.00 | 10.00 | 220.00 | 22.00 | 0.00 |
| 2003 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2004 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2005 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2006 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2007 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2008 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |
| 2009 | 25.52 | 440.00 | 0.00 | 220.00 | 22.00 | 0.00 |

HEAT CONTENT DISTILLATE OIL = 5.80 MBTU/BBL

ASH CONTENT DISTILLATE OIL = 0.00 PERCENT

NOTES: 1 / WITHOUT INLAND FREIGHT - 0.5% SULFUR
2 / SUPPLY COST ONLY

NOMINAL, DELIVERED COAL PRICES
BASE CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOW SULFUR COAL ( < 1.0%) | | | | MEDIUM SULFUR COAL (1.0 - 2.0%) | | | | HIGH SULFUR COAL ( > 2.0%) | | | |
| YEAR | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE |
| | | | | | 1 / | 1 / | | 4 / | | | | |
| 1997 | | DATA | | | 47.25 | 189.00 | | 0.00 | | DATA | | |
| 1998 | | NOT | | | 47.00 | 188.00 | -0.53 | 0.00 | | NOT | | |
| 1999 | | AVAILABLE | | | 46.25 | 185.00 | -1.60 | 0.00 | | AVAILABLE | | |
| | 2 / | 2 / | | 4 / | 3 / | 3 / | | 4 / | | | | |
| 2000 | 48.75 | 195.00 | | 0.00 | 40.75 | 163.00 | | 0.00 | | | | |
| 2001 | 48.25 | 193.00 | -1.03 | 0.00 | 41.25 | 165.00 | 1.23 | 0.00 | | | | |
| 2002 | 48.00 | 192.00 | -0.52 | 0.00 | 41.75 | 167.00 | 1.21 | 0.00 | | | | |
| 2003 | 48.50 | 194.00 | 1.04 | 0.00 | 42.25 | 169.00 | 1.20 | 0.00 | | | | |
| 2004 | 49.00 | 196.00 | 1.03 | 0.00 | 42.75 | 171.00 | 1.18 | 0.00 | | NOT | | |
| 2005 | 47.75 | 191.00 | -2.55 | 0.00 | 43.25 | 173.00 | 1.17 | 0.00 | | APPLICABLE | | |
| 2006 | 48.25 | 193.00 | 1.05 | 0.00 | 44.25 | 177.00 | 2.31 | 0.00 | | | | |
| 2007 | 48.75 | 195.00 | 1.04 | 0.00 | 44.75 | 179.00 | 1.13 | 0.00 | | | | |
| 2008 | 49.75 | 199.00 | 2.05 | 0.00 | 45.50 | 182.00 | 1.68 | 0.00 | | | | |
| 2009 | 50.50 | 202.00 | 1.51 | 0.00 | 46.00 | 184.00 | 1.10 | 0.00 | | | | |

HEAT CONTENT < 1.0% LOW SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT > 2.0% HIGH SULFUR COAL = N/A MBTU/TON

ASH CONTENT < 1.0% LOW SULFUR COAL = 8.36 PERCENT
ASH CONTENT 1.0 - 2.0% MED. SULFUR COAL = 8.89 PERCENT
ASH CONTENT > 2.0% HIGH SULFUR COAL = N/A PERCENT

NOTES: 1 / TOTAL COAL - $/TON ARE APPROXIMATE - AS BURNED DATA
2 / LIMITED TO 1.2 lb $SO_2$/MBTU
3 / LIMITED TO 2.1 lb $SO_2$/MBTU
4 / 100% CONTRACT

NOMINAL, DELIVERED COAL PRICES
HIGH CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOW SULFUR COAL ( < 1.0%) | | | | MEDIUM SULFUR COAL (1.0 - 2.0%) | | | | HIGH SULFUR COAL ( > 2.0%) | | | |
| YEAR | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE |
| 1997 | | DATA | | | | SEE | | | | DATA | | |
| 1998 | | NOT | | | | BASE | | | | NOT | | |
| 1999 | | AVAILABLE | | | | CASE | | | | AVAILABLE | | |
| | 1 / | 1 / | | 3 / | 2 / | 2 / | | 3 / | | | | |
| 2000 | 49.25 | 197.00 | | 0.00 | 41.25 | 165.00 | | 0.00 | | | | |
| 2001 | 48.75 | 195.00 | -1.02 | 0.00 | 41.75 | 167.00 | 1.21 | 0.00 | | | | |
| 2002 | 48.50 | 194.00 | -0.51 | 0.00 | 42.50 | 170.00 | 1.80 | 0.00 | | | | |
| 2003 | 49.00 | 196.00 | 1.03 | 0.00 | 43.00 | 172.00 | 1.18 | 0.00 | | | | |
| 2004 | 49.75 | 199.00 | 1.53 | 0.00 | 43.50 | 174.00 | 1.16 | 0.00 | | NOT | | |
| 2005 | 48.25 | 193.00 | -3.02 | 0.00 | 44.00 | 176.00 | 1.15 | 0.00 | | APPLICABLE | | |
| 2006 | 48.75 | 195.00 | 1.04 | 0.00 | 44.75 | 179.00 | 1.70 | 0.00 | | | | |
| 2007 | 49.50 | 198.00 | 1.54 | 0.00 | 45.50 | 182.00 | 1.68 | 0.00 | | | | |
| 2008 | 50.25 | 201.00 | 1.52 | 0.00 | 46.00 | 184.00 | 1.10 | 0.00 | | | | |
| 2009 | 50.75 | 203.00 | 1.00 | 0.00 | 46.50 | 186.00 | 1.09 | 0.00 | | | | |

HEAT CONTENT < 1.0% LOW SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT > 2.0% HIGH SULFUR COAL = N/A MBTU/TON

ASH CONTENT < 1.0% LOW SULFUR COAL = 8.36 PERCENT
ASH CONTENT 1.0 - 2.0% MED. SULFUR COAL = 8.89 PERCENT
ASH CONTENT > 2.0% HIGH SULFUR COAL = N/A PERCENT

NOTES: 1 / LIMITED TO 1.2 lb SO2/MBTU
2 / LIMITED TO 2.1 lb SO2/MBTU
3 / 100% CONTRACT

NOMINAL, DELIVERED COAL PRICES
LOW CASE

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LOW SULFUR COAL ( < 1.0%) | | | | MEDIUM SULFUR COAL (1.0 - 2.0%) | | | | HIGH SULFUR COAL ( > 2.0%) | | | |
| YEAR | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE | $/TON | c/MBTU | ESCALATION % | % SPOT PURCHASE |
| 1997 | | DATA | | | | SEE | | | | DATA | | |
| 1998 | | NOT | | | | BASE | | | | NOT | | |
| 1999 | | AVAILABLE | | | | CASE | | | | AVAILABLE | | |
| | 1 / | 1 / | | 3 / | 2 / | 2 / | | 3 / | | | | |
| 2000 | 48.25 | 193.00 | | 0.00 | 40.25 | 161.00 | | 0.00 | | | | |
| 2001 | 47.50 | 190.00 | -1.55 | 0.00 | 40.50 | 162.00 | 0.62 | 0.00 | | | | |
| 2002 | 47.25 | 189.00 | -0.53 | 0.00 | 40.75 | 163.00 | 0.62 | 0.00 | | | | |
| 2003 | 47.75 | 191.00 | 1.06 | 0.00 | 41.00 | 164.00 | 0.61 | 0.00 | | | | |
| 2004 | 48.50 | 194.00 | 1.57 | 0.00 | 41.50 | 166.00 | 1.22 | 0.00 | | NOT | | |
| 2005 | 46.75 | 187.00 | -3.61 | 0.00 | 42.00 | 168.00 | 1.20 | 0.00 | | APPLICABLE | | |
| 2006 | 47.50 | 190.00 | 1.60 | 0.00 | 42.75 | 171.00 | 1.79 | 0.00 | | | | |
| 2007 | 48.00 | 192.00 | 1.05 | 0.00 | 43.75 | 175.00 | 2.34 | 0.00 | | | | |
| 2008 | 48.75 | 195.00 | 1.56 | 0.00 | 44.50 | 178.00 | 1.71 | 0.00 | | | | |
| 2009 | 49.75 | 199.00 | 2.05 | 0.00 | 45.00 | 180.00 | 1.12 | 0.00 | | | | |

HEAT CONTENT < 1.0% LOW SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT 1.0 - 2.0% MED. SULFUR COAL = 25.00 MBTU/TON
HEAT CONTENT > 2.0% HIGH SULFUR COAL = N/A MBTU/TON

ASH CONTENT < 1.0% LOW SULFUR COAL = 8.36 PERCENT
ASH CONTENT 1.0 - 2.0% MED. SULFUR COAL = 8.89 PERCENT
ASH CONTENT > 2.0% HIGH SULFUR COAL = N/A PERCENT

NOTES: 1 / LIMITED TO 1.2 lb SO2/MBTU
2 / LIMITED TO 2.1 lb SO2/MBTU
3 / 100% CONTRACT

NOMINAL, DELIVERED NUCLEAR FUEL AND FIRM PURCHASES

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | NUCLEAR | | FIRM PURCHASES | | QF PURCHASES | |
| YEAR | c/MBTU | ESCALATION % | $/MWh | ESCALATION % | $/MWh | ESCALATION % |
| 1997 | 32.00 | | 1 / 57.12 | | 2 / 19.72 | |
| 1998 | 34.00 | 6.25 | 57.65 | 0.93 | 19.00 | -3.65 |
| 1999 | 30.00 | -11.76 | 57.22 | -0.75 | 19.19 | 1.00 |
| 2000 | 32.80 | 9.33 | 3 / 13.90 | | 20.22 | 5.37 |
| 2001 | 32.80 | 0.00 | 14.10 | 1.44 | 20.53 | 1.53 |
| 2002 | 33.60 | 2.44 | 14.40 | 2.13 | 20.81 | 1.36 |
| 2003 | 33.60 | 0.00 | 14.60 | 1.39 | 21.28 | 2.26 |
| 2004 | 32.40 | -3.57 | 14.70 | 0.68 | 21.59 | 1.46 |
| 2005 | 32.40 | 0.00 | 14.60 | -0.68 | 21.56 | -0.14 |
| 2006 | 33.90 | 4.63 | 14.90 | 2.05 | 21.96 | 1.86 |
| 2007 | 33.90 | 0.00 | 15.20 | 2.01 | 22.46 | 2.28 |
| 2008 | 35.70 | 5.31 | 15.40 | 1.32 | 23.08 | 2.76 |
| 2009 | 35.70 | 0.00 | 15.60 | 1.30 | 24.73 | 7.15 |

NOTES: 1 / PURCHASED POWER - INVOICE COST (INCLUDING ANY DEMAND CHARGES)
2 / QF CONTRACTS WITH FIRM DELIVERIES - ENERGY COST ONLY
3 / ENERGY COST ONLY

**FLORIDA POWER CORPORATION**

FINANCIAL ASSUMPTIONS
BASE CASE

| | | |
|---|---|---|
| AFUDC RATE | | 8.53 % |
| CAPITALIZATION RATIOS: | | |
| | DEBT | 45.00 % |
| | PREFERRED | 0.00 % |
| | EQUITY | 55.00 % |
| RATE OF RETURN: | | |
| | DEBT | 7.00 % |
| | PREFERRED | 8.00 % |
| | EQUITY | 12.00 % |
| INCOME TAX RATE: | | |
| | STATE | 5.50 % |
| | FEDERAL | 35.00 % |
| | EFFECTIVE | 38.58 % |
| OTHER TAX RATE: | | NOT USED % |
| DISCOUNT RATE: | | 8.53 % |
| TAX DEPRECIATION RATE: | | 15 YEAR, 150% TO SL |

## FINANCIAL ESCALATION ASSUMPTIONS

| (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|
| YEAR | GENERAL INFLATION % | PLANT CONSTRUCTION COST % | FIXED O & M COST % | VARIABLE O & M COST % |
| 2000 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2001 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2002 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2003 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2004 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2005 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2006 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2007 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2008 | 3.00 | 2.50 | 2.50 | 3.00 |
| 2009 | 3.00 | 2.50 | 2.50 | 3.00 |

LOSS OF LOAD PROBABILITY, RESERVE MARGIN,
AND EXPECTED UNSERVED ENERGY
BASE CASE LOAD FORECAST

| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|
| | ANNUAL ISOLATED | | | ANNUAL ASSISTED | | |
| YEAR | LOSS OF LOAD PROBABILITY (DAYS/YR) | RESERVE MARGIN % (INCLUDING FIRM PURCH.) | EXPECTED UNSERVED ENERGY (MWh) | LOSS OF LOAD PROBABILITY (DAYS/YR) | RESERVE MARGIN (%) | EXPECTED UNSERVED ENERGY (MWh) |
| 2000 | 1.378 | 16 | 1817.3 | 0.061 | 16 | 64.7 |
| 2001 | 1.457 | 16 | 1856.4 | 0.066 | 16 | 67.5 |
| 2002 | 0.510 | 20 | 630.3 | 0.018 | 20 | 17.9 |
| 2003 | 0.457 | 22 | 579.9 | 0.015 | 22 | 14.9 |
| 2004 | 0.188 | 25 | 238.3 | 0.005 | 25 | 5.4 |
| 2005 | 0.392 | 23 | 512.9 | 0.012 | 23 | 13.2 |
| 2006 | 0.191 | 25 | 250.7 | 0.006 | 25 | 6.0 |
| 2007 | 0.620 | 21 | 871.5 | 0.023 | 21 | 26.5 |
| 2008 | 0.188 | 24 | 250.7 | 0.006 | 24 | 6.4 |
| 2009 | 0.623 | 20 | 897.1 | 0.024 | 20 | 29.1 |

**2. Illustrate what FPC's generation expansion plan would be as a result of each of the demand and fuel price forecast sensitivities discussed in FPC's Ten-Year Site Plan. Include the cumulative present worth revenue requirements (CPWRR) of each sensitivity.**

The CPWRR from the #1 ranked PROVIEW expansion plan for each sensitivity are provided below.

| | High Demand Forecast Sensitivity | | Low Demand Forecast Sensitivity | |
|---|---|---|---|---|
| Year | Unit(s) | CPWRR ($000) | Unit(s) | CPWRR ($000) |
| 2000 | | 1,128,684 | | 1,074,578 |
| 2001 | Inter. City P12-14 | 2,213,975 | Inter. City P12-14 | 2,103,029 |
| 2002 | | 3,200,947 | | 3,034,540 |
| 2003 | | 4,169,949 | | 3,936,046 |
| 2004 | Hines Energy Complex CC 2 | 5,100,942 | | 4,786,874 |
| 2005 | Hines Energy Complex CC 3 | 6,018,676 | | 5,609,222 |
| 2006 | CT 1 | 6,900,825 | Hines Energy Complex CC 2 | 6,399,796 |
| 2007 | Hines Energy Complex CC 4 | 7,774,701 | | 7,168,876 |
| 2008 | | 8,603,636 | Hines Energy Complex CC 3 | 7,905,317 |
| 2009 | Hines Energy Complex CC 5 | 9,408,182 | | 8,599,929 |
| 2010 | CT 2 & 3 | 10,165,567 | Hines Energy Complex CC 4 | 9,250,606 |

| | High Fuel Price Forecast Sensitivity | | Low Fuel Price Forecast Sensitivity | |
|---|---|---|---|---|
| Year | Unit(s) | CPWRR ($000) | Unit(s) | CPWRR ($000) |
| 2000 | | 1,117,640 | | 1,057,830 |
| 2001 | Inter. City P12-14 | 2,207,791 | Inter. City P12-14 | 2,073,047 |
| 2002 | | 3,188,428 | | 3,001,669 |
| 2003 | | 4,148,840 | | 3,904,728 |
| 2004 | Hines Energy Complex CC 2 | 5,070,560 | Hines Energy Complex CC 2 | 4,765,167 |
| 2005 | | 5,965,735 | | 5,592,985 |
| 2006 | Hines Energy Complex CC 3 | 6,831,121 | Hines Energy Complex CC 3 | 6,389,288 |
| 2007 | | 7,670,905 | | 7,157,334 |
| 2008 | Hines Energy Complex CC 4 | 8,476,286 | Hines Energy Complex CC 4 | 7,894,070 |
| 2009 | | 9,238,649 | | 8,581,758 |
| 2010 | Hines Energy Complex CC 5 | 9,959,842 | Hines Energy Complex CC 5 | 9,220,919 |

| | Constant Oil & Gas to Coal Differential Forecast Sensitivity | |
|---|---|---|
| Year | Unit(s) | CPWRR ($000) |
| 2000 | | 1,099,178 |
| 2001 | Inter. City P12-14 | 2,166,146 |
| 2002 | | 3,128,120 |
| 2003 | | 4,067,424 |
| 2004 | Hines Energy Complex CC 2 | 4,960,324 |
| 2005 | | 5,817,623 |
| 2006 | Hines Energy Complex CC 3 | 6,641,378 |
| 2007 | | 7,438,312 |
| 2008 | Hines Energy Complex CC 4 | 8,205,203 |
| 2009 | | 8,925,845 |
| 2010 | Hines Energy Complex CC 5 | 9,600,036 |

**3. Provide a table of annual and cumulative present worth revenue requirements (CPWRR) for all combinations of units that were evaluated in order to arrive at FPC's base case generation expansion plan. Include the type and timing of the unit or units that comprise each alternative, and the effect of these unit additions on FPC's reliability criteria.**

FPC's 2000 Ten-Year Site Plan expansion review analyzed hundreds of possible expansion alternatives. In order to simplify the data collection for this question, FPC selected six PROVIEW expansion plans that related to various types of technology and produced the CPWRR for these plans. The types of technology selected are shown below.

**PROVIEW Expansion Plans**

| Plan # | Description |
|---|---|
| 1 | Combined Cycle Technology (Base Plan) |
| 9 | Combined Cycle & Combustion Turbines |
| 18 | Combined Cycle Repowering Technology |
| 286 | Pulverized Coal Technology |
| 334 | Fluidized Bed Technology |
| 634 | Integrated Gasification Combined Cycle (IGCC) Technology |

The data requested has been attached for the above technologies:

## PROVIEW Expansion Plan # 1

### Combined Cycle Technology (Base Plan)

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | 0.061 | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | 0.066 | 16 |
| 2002 | | 957,804 | 3,117,223 | 0.018 | 20 |
| 2003 | | 935,894 | 4,053,117 | 0.015 | 22 |
| 2004 | Hines Energy Complex CC 2 | 897,570 | 4,950,688 | 0.005 | 25 |
| 2005 | | 869,108 | 5,819,796 | 0.012 | 23 |
| 2006 | Hines Energy Complex CC 3 | 840,869 | 6,660,665 | 0.006 | 25 |
| 2007 | | 817,261 | 7,477,926 | 0.023 | 21 |
| 2008 | Hines Energy Complex CC 4 | 788,544 | 8,266,470 | 0.006 | 24 |
| 2009 | | 745,745 | 9,012,215 | 0.024 | 20 |
| 2010 | Hines Energy Complex CC 5 | 700,814 | 9,713,029 | N/A | 22 |

## PROVIEW Expansion Plan # 9

### Combined Cycle & Combustion Turbines

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | | 16 |
| 2002 | | 957,804 | 3,117,223 | | 20 |
| 2003 | | 935,894 | 4,053,117 | LOLP | 22 |
| 2004 | CT 1 | 894,282 | 4,947,399 | SENSITIVITY | 21 |
| 2005 | Hines Energy Complex CC 2 | 878,899 | 5,826,298 | NOT | 25 |
| 2006 | | 833,470 | 6,659,768 | PERFORMED | 20 |
| 2007 | Hines Energy Complex CC 3 | 826,481 | 7,486,250 | | 23 |
| 2008 | CT 2 | 784,800 | 8,271,050 | | 22 |
| 2009 | Hines Energy Complex CC 4 | 759,015 | 9,030,065 | | 24 |
| 2010 | CT 3 | 704,913 | 9,734,978 | | 21 |

## PROVIEW Expansion Plan # 18

### Combined Cycle Repowering Technology

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | | 16 |
| 2002 | | 957,804 | 3,117,223 | | 20 |
| 2003 | | 935,894 | 4,053,117 | LOLP | 22 |
| 2004 | Hines Energy Complex CC 2 | 897,570 | 4,950,688 | SENSITIVITY | 25 |
| 2005 | | 869,108 | 5,819,796 | NOT | 23 |
| 2006 | Hines Energy Complex CC 3 | 840,869 | 6,660,665 | PERFORMED | 25 |
| 2007 | | 817,261 | 7,477,926 | | 21 |
| 2008 | Hines Energy Complex CC 4 | 788,544 | 8,266,470 | | 24 |
| 2009 | | 745,745 | 9,012,215 | | 20 |
| 2010 | Repower Bartow 3 & CT 1 | 709,144 | 9,721,359 | | 21 |

## PROVIEW Expansion Plan # 286

### Pulverized Coal Technology

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | | 16 |
| 2002 | | 957,804 | 3,117,223 | | 20 |
| 2003 | | 935,894 | 4,053,117 | LOLP | 22 |
| 2004 | Hines Energy Complex CC 2 | 897,570 | 4,950,688 | SENSITIVITY | 25 |
| 2005 | | 869,108 | 5,819,796 | NOT | 23 |
| 2006 | Hines Energy Complex CC 3 | 840,869 | 6,660,665 | PERFORMED | 25 |
| 2007 | | 817,261 | 7,477,926 | | 21 |
| 2008 | Pulverized Coal | 839,287 | 8,317,213 | | 27 |
| 2009 | | 786,804 | 9,104,016 | | 23 |
| 2010 | CT 1 | 726,069 | 9,830,085 | | 20 |

## PROVIEW Expansion Plan # 334

### Fluidized Bed Technology

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | | 16 |
| 2002 | | 957,804 | 3,117,223 | | 20 |
| 2003 | | 935,894 | 4,053,117 | LOLP | 22 |
| 2004 | Hines Energy Complex CC 2 | 897,570 | 4,950,688 | SENSITIVITY | 25 |
| 2005 | | 869,108 | 5,819,796 | NOT | 23 |
| 2006 | Hines Energy Complex CC 3 | 840,869 | 6,660,665 | PERFORMED | 25 |
| 2007 | | 817,261 | 7,477,926 | | 21 |
| 2008 | Hines Energy Complex CC 4 | 788,544 | 8,266,470 | | 24 |
| 2009 | | 745,745 | 9,012,215 | | 20 |
| 2010 | Fluidized Bed | 730,548 | 9,742,763 | | 21 |

## PROVIEW Expansion Plan # 634

### Integrated Gasification Combined Cycle (IGCC) Technology

| Year | Unit(s) | Annual PWRR ($000) | CPWRR ($000) | Annual LOLP | Winter Reserve Margin (%) |
|---|---|---|---|---|---|
| 2000 | | 1,099,178 | 1,099,178 | | 16 |
| 2001 | Inter. City P12-14 | 1,060,241 | 2,159,419 | | 16 |
| 2002 | | 957,804 | 3,117,223 | | 20 |
| 2003 | | 935,894 | 4,053,117 | LOLP | 22 |
| 2004 | Hines Energy Complex CC 2 | 897,570 | 4,950,688 | SENSITIVITY | 25 |
| 2005 | | 869,108 | 5,819,796 | NOT | 23 |
| 2006 | Hines Energy Complex CC 3 | 840,869 | 6,660,665 | PERFORMED | 25 |
| 2007 | | 817,261 | 7,477,926 | | 21 |
| 2008 | Hines Energy Complex CC 4 | 788,544 | 8,266,470 | | 24 |
| 2009 | | 745,745 | 9,012,215 | | 20 |
| 2010 | IGCC | 748,155 | 9,760,370 | | 22 |

**4. Identify and discuss any firm power purchases that FPC expects to make from other utilities over the planning horizon. If an unidentified or unconfirmed future power purchase is part of FPC's generation expansion plan, explain the nature of that purchase.**

FPC has long-term contracts for about 469 MW of purchased power with other utilities, including a contract with Southern Company for approximately 409 MW of purchased power annually through May 2010. This represents about 4.3 percent of FPC's total current system capacity. FPC has an option to lower the UPS purchases by approximately 200 MW given a three-year notice.

The other 60 MW of purchased power is a partial requirements contract between Tampa Electric Company (TECO) and FPC. This was originally a full requirements contract between TECO and the Sebring Utilities Commission (SUC). The contract was assumed by FPC and converted to partial requirements after FPC purchased the SUC electric distribution system in 1993. The terms of this contract with TECO change to 70 MW from 2005 through February 2011. This contract expires in March 2011.

**5. For each of the generating units contained in FPC's Ten-Year Site Plan, discuss the "drop-dead" date for a decision on whether or not to construct each unit. Provide a time line for the construction of each unit, including regulatory approval, final decision point, and vendor order.**

FPC's April 2000 TYSP projects an in-service date of November 2003, November 2005, November 2007 and November 2009 for HEC #2 through #5, respectively. Given the current increase in market activity for combustion turbines, FPC would anticipate a 48-month window for developing a combined cycle power plant. Vendor equipment lead times are anticipated to be approximately 30 months. FPC would typically proceed with placing equipment orders within the first year of the 48-month installation schedule. A decision date to proceed with HEC #2 through #5 would typically occur 36-42 months before their in-service dates. The major components of the 48-month schedule are shown in the following Table A5.

## Table A5

### Time Line of Supply-Side Additions

TYSP Supplemental Question #5

Chart Reflects Major Components of a 48-month Combined Cycle Schedule

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **HEC #2 In-Service Date** | | | | **11/03** | | | | | | | |
| Evaluations/RFP/FPSC Preparations | xxxxxx | | | | | | | | | | |
| Determination of Need (FPSC) | xxxxxx | | | | | | | | | | |
| Licensing & Permitting | xxxxxx | xxxxxxxxxxxx | | | | | | | | | |
| Engineer/Procure/Construct | xxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | | | | | | | |
| **HEC #3 In-Service Date** | | | | | | **11/05** | | | | | |
| Evaluations/RFP/FPSC Preparations | | | xxxxxx | | | | | | | | |
| Determination of Need (FPSC) | | | xxxxxx | | | | | | | | |
| Licensing & Permitting | | | xxxxxx | xxxxxxxxxxxx | | | | | | | |
| Engineer/Procure/Construct | | | xxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | | | | | |
| **HEC #4 In-Service Date** | | | | | | | | **11/07** | | | |
| Evaluations/RFP/FPSC Preparations | | | | | xxxxxx | | | | | | |
| Determination of Need (FPSC) | | | | | xxxxxx | | | | | | |
| Licensing & Permitting | | | | | xxxxxx | xxxxxxxxxxxx | | | | | |
| Engineer/Procure/Construct | | | | | xxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | | | |
| **HEC #5 In-Service Date** | | | | | | | | | | **11/09** | |
| Evaluations/RFP/FPSC Preparations | | | | | | | xxxxxx | | | | |
| Determination of Need (FPSC) | | | | | | | xxxxxx | | | | |
| Licensing & Permitting | | | | | | | xxxxxx | xxxxxxxxxxxx | | | |
| Engineer/Procure/Construct | | | | | | | xxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | xxxxxxxxxxxx | |

**6. Discuss FPC's plans to request a determination of need from the Commission. Include a possible timetable for this activity (e.g., when would petition be filed, when would need have to be granted to meet environmental requirements, etc.).**

FPC's April 2000 TYSP projects an in-service date of November 2003 for Hines 2. Having identified and confirmed Hines 2 as the Company's next-planned generating alternative, FPC then sought to solicit superior contract alternatives from third-party suppliers. Pursuant to FPSC Rule 25-22.082, F.A.C., FPC issued a Request for Proposals (RFP) on January 26, 2000. FPC has concluded its evaluation of the RFP proposals and is preparing a need petition for FPC's next capacity addition. FPC expects to file a need petition prior to the end of August. FPC's supplemental Site Certification filing anticipates a normal review process by the FPSC on FPC's need determination petition. Based on an estimated August 2000 filing date, FPC would anticipate having a decision from the FPSC by December 2000 in order to proceed on schedule with the FDEP. FPC currently anticipates a PSD permit issuance from the FDEP by November 2001 in its current schedule. Major components of the Hines 2 timetable are shown in Table A5 from Question #5.

**7. Identify and discuss all proposed or reasonably expected State and Federal environmental regulations or legislation that impacted FPC's generation expansion plan.**

The key environmental legislation and resulting regulations that are taken into consideration in FPC's generation expansion plan are:

**The Clean Air Act Amendments (CAAA):** FPC is in the process of implementing the most cost-effective plan to maintain compliance with the Title IV $SO_2$ allowance allocations beginning in the year 2000. In addition, as prescribed by Title III of the CAAA, EPA is continuing to evaluate the emissions of air toxins from electric utilities and whether to regulate those emissions. In February, 1998 EPA determined that further regulation of air toxic emissions from electric utilities is not appropriate at the present time, but additional study is needed.

**Regional Haze Rule:** EPA's final regional haze regulation requires all states to improve visibility to background conditions over the next several decades. This regulation could cause FPC to add costly emissions controls, especially on its coal-fired units.

**Ambient Air Quality:** Recent high ground-level ozone readings in Florida may cause several areas, including the Tampa Bay area, to become non-attainment for this pollutant. This change will make it more difficult and costly to build new generating capacity and could also result in a requirement to decrease emissions from current facilities.

**7. (continued)**

**New Source Review Reform:** EPA has proposed changes to the rules that regulate the air emissions from construction of new units or modification of existing units. If the proposed changes become final, routine activities that are currently exempt from New Source Review would be subject to it in the future. This could result in the installation of costly state-of-the-art pollution control equipment at many of FPC's facilities. Currently, EPA plans to finalize this regulation in the fall of 2000.

**The Kyoto Climate Change Agreement:** The Kyoto climate change agreement was developed in December 1997. If ratification of the protocol is successful, implementation will have a profound impact on FPC's operations and planning.

**The reauthorization of the Clean Water Act (CWA):** Congress has begun the process to reauthorize the CWA. Any changes to the CWA, particularly any changes related to intake structures or cooling water systems, may have an effect on the generation plan.

**State consumptive use requirements:** Because of increased pressure on a limited resource, the state's water management districts have begun restricting and/or denying new consumptive use water permits. Such changes in water use policy will increase reliance on alternative water supplies such as treated effluent and stormwater to support new generation expansion. Many changes are either being considered or have been enacted by the legislature that affect how water is allocated in Florida.

7. **(continued)**

**State industrial wastewater permits:** The State of Florida has received delegation of the federal NPDES program. Current state industrial wastewater permits have been consolidated into the NPDES permits. However, no new limitations to wastewater discharges that would restrict generation expansion are anticipated from this delegation.

**Total Maximum Daily Loading (TMDL) Rulemaking**: The EPA has begun a new rulemaking that would expand the TMDL program required by the Clean Water Act. The EPA is attempting to include air deposition into water bodies as a component of this program. If successful, this rule could result in more stringent air emission limitations at generating facilities.

**Wetlands permitting:** The Environmental Resource Permitting program requires applicants to address cumulative and secondary impacts to wetlands, wildlife and water quality. These predictive analyses are taken into account during the expansion planning process.

**Power Plant Siting Act (PPSA):** Florida's current PPSA is designed to be a "one-stop" environmental permitting process. The extensive lead times for the necessary studies, permit application preparation, processing, and approval must be accounted for in generation planning.

**8. Provide, on a system-wide basis, historical annual heating degree day (HDD) data for the period 1990-1999 and forecasted annual HDD data for the period 2000-2009.**

| Year | HDD |
|---|---|
| 1990 | 445.5 |
| 1991 | 421.2 |
| 1992 | 585.2 |
| 1993 | 508.1 |
| 1994 | 515.0 |
| 1995 | 601.0 |
| 1996 | 859.1 |
| 1997 | 442.7 |
| 1998 | 557.2 |
| 1999 | 441.8 |
| Forecast: | |
| 2000-2009 | 538.0 |

**9. Provide, on a system-wide basis, historical annual cooling degree day (CDD) data for the period 1990-1999 and forecasted annual CDD data for the period 2000-2009.**

| Year | CDD |
|---|---|
| 1990 | 4209.8 |
| 1991 | 3948.0 |
| 1992 | 3327.0 |
| 1993 | 3396.0 |
| 1994 | 3345.3 |
| 1995 | 3928.5 |
| 1996 | 3682.1 |
| 1997 | 3434.1 |
| 1998 | 4159.0 |
| 1999 | 3445.6 |
| Forecast: | |
| 2000-2009 | 3743.0 |

**10. Provide, on a system-wide basis, the historical annual average real retail price of electricity in FPC's service territory for the period 1990-1999. Also, provide the forecasted annual average real retail price of electricity in FPC's service territory for the period 2000-2009. Indicate the type of price deflator used to calculate the historical prices and forecasted real retail prices.**

The following table lists FPC's historical and projected average billed cents per kWh to the retail sector. The deflator used is the Consumer Price Index - All Urban Consumers.

| Year | AVG. RETAIL PRICE (Cents/kWh) | CPI-U (1982-84=100) | REAL AVG. RETAIL PRICE (Cents/kWh) |
|---|---|---|---|
| 1990 | 6.147 | 130.7 | 4.703 |
| 1991 | 6.169 | 136.2 | 4.529 |
| 1992 | 6.017 | 140.3 | 4.289 |
| 1993 | 6.461 | 144.5 | 4.471 |
| 1994 | 6.631 | 148.2 | 4.474 |
| 1995 | 6.830 | 152.4 | 4.482 |
| 1996 | 6.865 | 156.9 | 4.375 |
| 1997 | 6.970 | 160.5 | 4.343 |
| 1998 | 6.995 | 163.0 | 4.291 |
| 1999 | 6.913 | 166.6 | 4.149 |
| Forecast: | | | |
| 2000 | 7.093 | 169.4 | 4.187 |
| 2001 | 7.049 | 173.3 | 4.068 |
| 2002 | 6.952 | 177.3 | 3.921 |
| 2003 | 7.019 | 181.7 | 3.863 |
| 2004 | 7.196 | 186.4 | 3.861 |
| 2005 | 7.307 | 191.2 | 3.822 |
| 2006 | 7.420 | 196.1 | 3.784 |
| 2007 | 7.529 | 201.0 | 3.746 |
| 2008 | 7.639 | 206.0 | 3.708 |
| 2009 | 7.750 | 211.1 | 3.671 |

**11. Provide the following data to support Schedule 4 of FPC's Ten-Year Site Plan: the 12 monthly peak demands for the years 1997, 1998, and 1999; and the date on which these monthly peaks occurred.**

MONTHLY PEAK DEMANDS

| | 1997 | | 1998 | | 1999 | |
|---|---|---|---|---|---|---|
| Month | Date | MW | Date | MW | Date | MW |
| Jan | 19 | 8,066 | 1 | 6,097 | 6 | 8,318 |
| Feb | 12 | 5,794 | 10 | 6,156 | 23 | 6,964 |
| Mar | 5 | 5,028 | 13 | 6,885 | 5 | 5,861 |
| Apr | 27 | 5,085 | 2 | 5,630 | 27 | 6,197 |
| May | 27 | 6,798 | 21 | 7,066 | 25 | 6,726 |
| Jun | 19 | 6,964 | 19 | 7,906 | 15 | 7,079 |
| Jul | 3 | 7,462 | 2 | 8,004 | 21 | 7,562 |
| Aug | 12 | 7,300 | 12 | 7,808 | 30 | 7,715 |
| Sep | 16 | 6,932 | 1 | 7,235 | 4 | 7,216 |
| Oct | 1 | 6,426 | 7 | 7,034 | 11 | 6,302 |
| Nov | 17 | 5,239 | 19 | 5,387 | 1 | 5,264 |
| Dec | 15 | 6,608 | 18 | 5,948 | 2 | 6,791 |

**Interconnection Studies**

**12. Provide a list of each QF, EWG, IPP or other type of generating entity that, since January 1, 1997, has initiated discussions regarding interconnections to FPC's system.**

FPC has received six (6) merchant plant (i.e. EWG) requests to interconnect new generation to the FPC transmission system since January 1, 1997. One request was determined by FPC to be illegitimate because the EWG was proposing to interconnect with another transmission system. Of the remaining five (5) interconnection requests, system impact studies have been completed and negotiations are in progress on three (3) requests, the system impact study is in progress for one (1) request, and the system impact study has not started for one (1) request. See response to Question #13.

**13. For each entity reported in Question #12, provide the following information:**

**a. the size, type, and location of the proposed generator;**

**b. the date when initial contact was made regarding interconnection;**

**c. the date when a formal application was made for either interconnection or a System Impact Study;**

**d. the date the System Impact Study was completed or is anticipated to be completed;**

**e. if available, the result of the System Impact Study;**

**f. if applicable, the estimated completion or result of any Facilities Studies performed; and**

**g. the date when an interconnection agreement was signed, if applicable, indicating the projected in-service date of the facility.**

**h. Copies of all notes from meetings, and other correspondences, between FPC and entities identified in Question #12.**

At this time, the merchant plant interconnection requests on the FPC transmission system are confidential. FPC is in the process of developing a formal interconnection procedure as well as a queuing order for all generation interconnection requests on the FPC transmission system which will include capacity increases at existing locations, proposed new FPC network resources, and proposed merchant plants. This procedure will outline in detail what is required for a customer to maintain its position in the generation interconnection queue on the FPC transmission system. When this is complete, FPC will be posting the interconnection procedure and the queuing order on the FLOASIS. The proposed queuing information will include the queue number for each request, the date the interconnection request was complete, the proposed capacity (MW), the interconnection point on the FPC transmission system, status of the request (i.e. system impact study complete, facilities study complete, signed Generation Interconnection and Operating Agreement). The exact location of the generator will remain confidential. It is FPC's opinion, until this information is posted on the FLOASIS and same time access to this information is provided to all, this information is confidential.

**14. Describe how FPC prioritizes request for interconnection and how this process is integrated with utility-owned generation that is planned for the future.**

As indicated in the answer to Question #13, FPC is in the process of developing generation interconnection procedures and a generation interconnection queuing order. FPC is committed to developing a procedure that treats all customers comparably and equitably addresses increases in the capacity of existing FPC network resources, new FPC network resources, and proposed resources of others (i.e. QFs, IPPs, EWGs). Also, FPC is reviewing the criteria for "grandfathering" generation interconnection requests that were made prior to FPC formalizing its generation interconnection procedures.

**Distributed Generation**

**15. Provide a list of each distributed generating resource that is currently interconnected to FPC's system. Indicate the size, type, in-service date, and location of the resource.**

FPC has one distributed generating resource currently interconnected to its system as shown below:

| | |
|---|---|
| Name: | The Nature Conservancy |
| Size: | 6.48 kW |
| Type: | Photovoltaic |
| In-Service Date: | June, 1999 |
| Location: | The Disney Wilderness Preserve |

**16. Provide a list of each distributed generating resource that has a pending request for interconnection to FPC's system. Indicate the size, type, in-service date, and location of the resource.**

None.

**17. Describe any policies or procedures utilized by FPC to address interconnection requests from owners of distributed generating resources.**

The generation interconnection procedures outlined in the answer to Question #13 would also apply to distributed generation, whether at the transmission or distribution level. The procedure would include a system impact study, facilities study, and signing of a Generation Interconnection and Operating Agreement.