ORIGINAL

Florida Power
CORPORATION

980000-EG

JEFFERY A. FROESCHLE
CORPORATE COUNSEL

April 1, 1998

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

RE: Ten-Year Site Plan

Dear Ms. Bayó:

In accordance with Section 186.801, Florida Statutes, enclosed for filing are an original and twenty-five copies of Florida Power Corporation's 1998 issue Ten-Year Site Plan based on data as of December 31, 1997. Any questions or comments that may arise during the course of Staff's review should be addressed to Mr. Lynn Taylor by telephone at 813/826-4331.

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

Very truly yours,

Jeffery A. Froeschle

JAF/kp

Enclosures

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AFA ___
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ORIGINAL

Florida Power
CORPORATION

Ten-Year Site Plan

DETAIL AS OF DECEMBER 31, 1997

Florida
Power
CORPORATION

Ten-Year Site Plan

1998-2007

Submitted To :

State of Florida
Public Service Commission

DETAIL AS OF DECEMBER 31, 1997

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LIST OF
REQUIRED SCHEDULES

FLORIDA POWER CORPORATION
CODE IDENTIFICATION SHEET

Generating Unit Type

- ST - Steam Turbine - Non-Nuclear
- NP - Steam Power - Nuclear
- GT - Combustion Turbine (Gas Turbine)
- CC - Combined Cycle
- SPP - Small Power Producer
- COG - Cogeneration Facility

Fuel Type

- UR - Nuclear (Uranium)
- NG - Natural Gas
- F06 - No. 6 Fuel Oil
- F02 - No. 2 Fuel Oil
- BIT - Bituminous Coal
- MSW - Municipal Solid Waste
- WH - Waste Heat
- BIO - Biomass

Fuel Transportation

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

Future Generating Unit Status

- A - Capability increase
- FC - Conversion to alternate fuel
- P - Planned but not authorized
- RE - Scheduled for retirement
- RP - Proposed for repowering
- U - Under construction, less than 50% complete
- V - Under construction, more than 50% complete

CHAPTER 1

Description of EXISTING FACILITIES

CHAPTER 1 Description of EXISTING FACILITIES

EXISTING FACILITIES OVERVIEW

OWNERSHIP

Florida Power Corporation (FPC) is an investor-owned electric utility. The company's common stock is held by Florida Progress Corporation which has over 54,000 registered common shareholders. Approximately 23,000 of FPC common shareholders live in Florida. In addition, millions of other people have an interest in the company due to investments made by insurance companies, mutual savings banks, and pension funds.

AREA OF SERVICE

The company's area of service (see Area of Service Map) encompasses approximately 20,000 square miles in over 30 Florida counties and is serviced by local business offices. The company supplies electricity at retail to approximately 350 communities and at wholesale to about 10 municipalities. Wholesale supplemental electric service also is supplied to Seminole Electric Cooperative, Inc. (SECI), Florida Municipal Power Agency (FMPA), and Walt Disney World.

TRANSMISSION/DISTRIBUTION

The company is part of a nationwide interconnected power network that enables power to be exchanged between utilities. FPC has approximately 4,600 miles of transmission lines and over 80 transmission substations. The distribution system includes over 24,000 circuit miles, with approximately 6,000 of those miles underground. FPC has over 270 distribution substations.

ENERGY MANAGEMENT

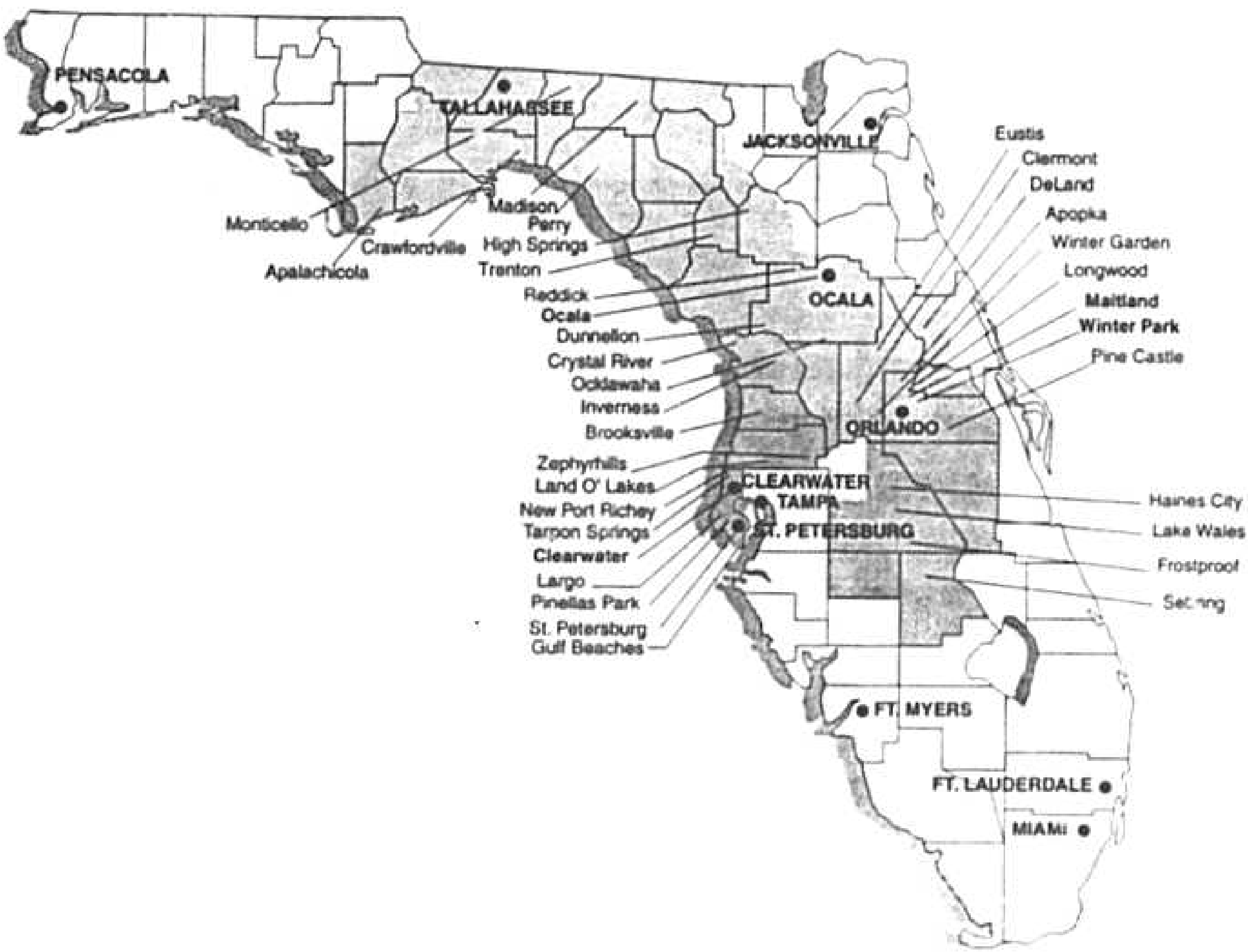
Florida Power customers participating in the company's Energy Management program are managing future growth and costs. Over 540,000 customers received energy management credits during the year. This excellent participation level provides over 960,000 KW of peak shaving capacity for use during high load periods. This program is a leader in the electric utility industry and directly benefits our environment.

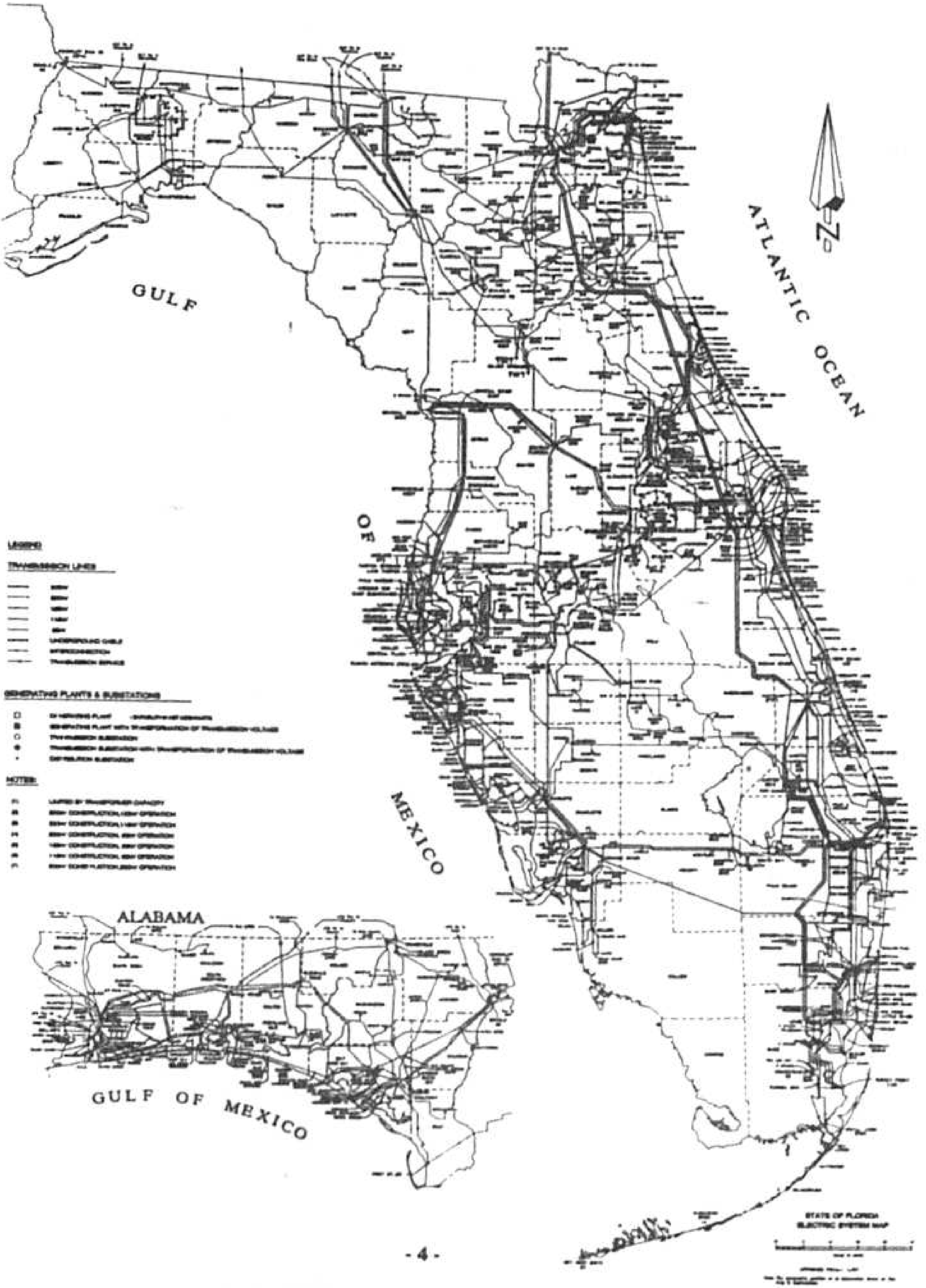
TOTAL CAPACITY RESOURCE

Florida Power has a total capacity resource of 9,003 MW. This capacity resource includes utility and non-utility purchased power, peaking facilities, nuclear, and fossil steam and combined cycle plants. Additional information on FPC's existing generating facilities are shown on Schedule 1.

Florida Power CORPORATION

Florida Power Corporation • Area of Service




ATLANTIC OCEAN
GULF
OF
MEXICO
ALABAMA
GULF OF MEXICO
N
LEGEND
TRANSMISSION LINES
GENERATING PLANTS & SUBSTATIONS
NOTES:
STATE OF FLORIDA
ELECTRIC SYSTEM MAP

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 1997

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
				FUEL		FUEL TRANSPORT		ALT FUEL				NET CAPABILITY	
PLANT NAME	UNIT NO.	LOCATION	UNIT TYPE	PRIMARY	ALT	PRIMARY	ALT	DAYS USE	COMMERCIAL IN-SERVICE MONTH/YEAR	EXPECTED RETIREMENT MONTH/YEAR	GEN. MAX NAMEPLATE KW	SUMMER MW	WINTER MW
												1,006	1,034
ANCLOTE	1	PASCO CO.	ST	F06		PL			10/1974		556,200	503	517
	2	SECT.33,34 T26S,R15E	ST	F06		PL			10/1978		556,200	503	517
												58	64
AVON PARK	P1	HIGHLANDS CO.	GT	F02	NG	TK	PL		12/1968	12/2004	33,790	29	32
	P2		GT	F02		TK			12/1968	12/2004	33,790	29	32
												627	666
BARTOW	1	PINELLAS CO.	ST	F06		WA			09/1958		127,500	115	117
	2	SECT.20,21,22	ST	F06		WA			08/1961		127,500	117	119
	3	T30S,R16E	ST	F06	NG	WA	PL		07/1963		239,360	208	213
	P1, P3		GT	F02		WA			06/1972		111,400	92	106
	P2, P4		GT	F02	NG	WA	PL		06/1972		111,400	95	111
												188	232
BAYBORO	P1-P4	PINELLAS CO. SECT. 30 T31S,R17E	GT	F02		WA,TK			04/1973		226,800	188	232
												2,961	3,031
CRYSTAL RIVER	1	CITRUS CO.	ST	BIT		WA,RR			10/1966		440,550	369	373
	2	SECT.33	ST	BIT		WA,RR			11/1969		523,800	464	469
	3 *	T17S,R16E	NP	UR		TK			03/1977		890,460	734	755
	4		ST	BIT		WA,RR			12/1982		739,260	697	717
	5		ST	BIT		WA,RR			10/1984		739,260	697	717
												656	786
DEBARY	P1-P6	VOLUSIA CO.	GT	F02		TK,RR			04/1976		401,220	324	390
	P7, P9	SECT.16,19-21,	GT	F02	NG	TK,RR	PL		11/1992		230,000	166	198
	P8, P10	28-30,T18S,R30E	GT	F02		TK,RR			11/1992		230,000	166	198
												128	148
HIGGINS	P1-P2	PINELLAS CO.	GT	F02	NG	TK	PL		04/1969	12/2003	67,580	58	64
	P3-P4	T29S,R16E	GT	F02	NG	TK	PL		12/1970	12/2003	85,850	70	84
												757	912
INTERCESSION CITY	P1-P6	OSCEOLA CO.	GT	F02		PL,TK			05/1974		340,200	282	348
	P7-P10	SECT. 31	GT	F02	NG	PL,TK	PL		11/1993		460,000	332	[illegible]
	P11	T25S,R28E	GT	F02		PL,TK			01/1997		165,000	143	168
												15	18
RIO PINAR	P1	ORANGE CO.	GT	F02		TK			11/1970	12/2003	19,290	15	18
												307	348
SUWANNEE RIVER	1	SUWANNEE CO.	ST	F06	NG	TK	PL		11/1953	04/2000	34,500	33	34
	2	SECT. 26,	ST	F06	NG	TK	PL		11/1954	04/2000	37,500	32	33
	3	T1S,R11E	ST	F06	NG	TK	PL		10/1956	04/2000	75,000	80	80
	P1		GT	F02	NG	TK	PL		11/1980		61,200	54	67
	P2, P3		GT	F02		TK			11/1980		122,400	108	134
												206	236
TIGER BAY	1	POLK CO.	CC	NG		PL			08/1997		[illegible]	206	236
												160	[illegible]
TURNER	P1-P2	VOLUSIA CO.	GT	F02		TK			10/1970	12/2004	38,580	30	[illegible]
	P3-P4	SECT. 1, T19S,R30E	GT	F02		TK			08/1974		142,400	130	[illegible]
												36	42
UNIV. OF FLA.	P1	ALACHUA CO.	GT	NG		PL			01/1994		43,000	36	42
												7,105	7,717

* REPRESENTS 90.4 % FPC OWNERSHIP OF UNIT

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CHAPTER 2

Forecast of ELECTRIC POWER DEMAND and ENERGY CONSUMPTION

CHAPTER 2 Forecast of ELECTRIC POWER DEMAND and ENERGY CONSUMPTION

OVERVIEW

The following Schedules 2, 3 and 4 represent FPC's history and forecast of customers, energy sales (GWh), and peak demand (MW). High and low scenarios are also presented for sensitivity purposes.

The base case was developed using both econometric and end-use forecasting methodologies to predict a forecast with a 50/50 probability, or most likely scenario. The high and low scenarios, which have a 90/10 probability of occurrence or an 80 percent probability of an outcome falling between the high and low cases, employed a Monte Carlo simulation procedure that studied 1,000 possible outcomes of retail demand and energy.

FPC's customer growth is expected to average 1.7 percent between 1998 and 2007, less than the ten-year historical average of 2.4 percent. Slower population growth -- based on the latest projection from the University of Florida's Bureau of Economic and Business Research -- results in a lower base case customer projection when compared to the rapid growth of the 1980's.

Net energy for load, which had grown at an average of 3.3 percent between 1988 and 1997, is expected to increase by 2.0 percent per year from 1998-2007 in the base case, 2.5 percent in the high case and 1.5 percent in the low case.

Summer net firm demand is expected to grow an average of 0.9 percent per year during the next ten years. This compares to the 3.5 percent average annual growth experienced throughout the last ten years. Winter net firm demand is projected to grow at 1.7 percent per year after having increased by 2.9 percent per year from 1988 to 1997. High and low summer growth rates for net firm demand are 1.4 percent and 0.4 percent per year, respectively, while high and low winter net firm demand growth rates are 2.2 percent and 1.2 percent, respectively.

The reduction in the projected energy and demand growth rates from historical rates is due to an assumed loss of a short-term wholesale contract with Seminole Electric Cooperative, Incorporated, as well as the loss of the City of Bartow which has given notice of cancellation. Projected retail sector growth is below the historical average due to slower population growth, less rapid economic expansion and improved appliance efficiencies in electric end-uses.

ENERGY CONSUMPTION SCHEDULES

FPC's History and Forecast of Energy Consumption and Number of Customers by Customer Class are shown on Schedules 2.1, 2.2 and 2.3.

FORECAST OF ELECTRIC POWER DEMAND SCHEDULES

FPC's History and Forecast of Base, High and Low Summer Peak Demand are shown on Schedules 3.1.1, 3.1.2 and 3.1.3.

FPC's History and Forecast of Base, High, and Low Winter Peak Demand are shown on Schedules 3.2.1, 3.2.2 and 3.2.3.

FPC's History and Forecast of Base, High and Low Annual Net Energy for Load are shown on Schedules 3.3.1, 3.3.2 and 3.3.3.

FPC's Previous Year Actual and Two-Year Forecast of Peak Demand and Net Energy for Load by Month are shown on Schedule 4.

SCHEDULE 2.1
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	FPC POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
1988	2,302,453	2.45	11,066	941,440	11,754	6,479	106,899	60,609
1989	2,404,525	2.46	11,787	977,448	12,059	6,990	111,079	62,928
1990	2,492,186	2.47	12,416	1,007,806	12,320	7,329	113,595	64,519
1991	2,537,012	2.46	12,624	1,029,901	12,257	7,489	114,657	65,318
1992	2,588,540	2.47	12,826	1,050,077	12,214	7,544	116,727	64,630
1993	2,653,485	2.46	13,373	1,076,657	12,420	7,885	119,811	65,810
1994	2,720,931	2.47	13,863	1,100,537	12,597	8,252	122,987	67,097
1995	2,786,332	2.48	14,938	1,124,679	13,282	8,612	126,189	68,248
1996	2,830,566	2.48	15,481	1,141,671	13,560	8,848	129,441	68,356
1997	2,881,169	2.48	15,080	1,160,611	12,993	9,257	132,504	69,864
1998	2,903,297	2.47	15,881	1,177,132	13,491	9,769	136,059	71,802
1999	2,961,733	2.47	16,416	1,201,210	13,666	10,092	139,143	72,529
2000	3,016,018	2.46	16,931	1,224,383	13,828	10,423	142,118	73,343
2001	3,068,363	2.46	17,427	1,246,383	13,982	10,739	144,943	74,090
2002	3,118,830	2.46	17,903	1,267,753	14,122	11,057	147,686	74,865
2003	3,167,665	2.46	18,345	1,288,658	14,236	11,408	150,370	75,867
2004	3,215,101	2.46	18,791	1,309,265	14,352	11,764	153,016	76,883
2005	3,261,370	2.45	19,221	1,329,736	14,455	12,127	155,644	77,915
2006	3,307,709	2.45	19,641	1,350,212	14,546	12,429	158,272	78,530
2007	3,353,508	2.45	20,044	1,370,736	14,623	12,724	160,907	79,075

FLORIDA POWER CORPORATION

SCHEDULE 2.2

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
YEAR	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	RAILROADS AND RAILWAYS GWh	STREET & HIGHWAY LIGHTING GWh	OTHER SALES TO PUBLIC AUTHORITIES GWh	TOTAL SALES TO ULTIMATE CONSUMERS GWh
1988	3,681	2,942	1,251,190	0	19	1,447	22,692
1989	3,766	3,021	1,246,607	0	19	1,561	24,123
1990	3,456	3,115	1,109,470	0	21	1,658	24,880
1991	3,303	3,124	1,057,288	0	23	1,740	25,179
1992	3,254	3,137	1,037,445	0	24	1,765	25,414
1993	3,381	3,107	1,088,123	0	25	1,865	26,528
1994	3,580	3,186	1,123,539	0	26	1,954	27,675
1995	3,864	3,143	1,229,532	0	27	2,058	29,499
1996	4,224	2,927	1,443,011	0	26	2,205	30,785
1997	4,188	2,830	1,479,783	0	27	2,299	30,850
1998	4,038	2,869	1,407,383	0	29	2,360	32,077
1999	4,118	2,887	1,426,451	0	30	2,451	33,107
2000	4,304	2,892	1,488,295	0	31	2,547	34,236
2001	4,392	2,897	1,516,123	0	32	2,644	35,234
2002	4,458	2,902	1,536,140	0	33	2,744	36,194
2003	4,322	2,907	1,486,699	0	34	2,836	36,944
2004	4,323	2,912	1,484,379	0	35	2,929	37,842
2005	4,321	2,917	1,481,224	0	35	3,025	38,729
2006	4,317	2,922	1,477,413	0	36	3,107	39,530
2007	4,311	2,927	1,472,752	0	37	3,191	40,306

SCHEDULE 2.3
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND NUMBER OF CUSTOMERS BY CUSTOMER CLASS

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	SALES FOR RESALE GWh	UTILITY USE & LOSSES GWh	NET ENERGY FOR LOAD GWh	OTHER CUSTOMERS (AVERAGE NO.)	TOTAL NO. OF CUSTOMERS
1988	1,432	1,724	25,848	9,691	1,060,972
1989	1,529	2,195	27,847	10,269	1,101,817
1990	1,548	1,377	27,805	10,9[illegible]	1,135,499
1991	1,411	1,799	28,389	11,555	1,159,237
1992	1,471	1,817	28,702	12,229	1,182,170
1993	1,695	2,02[illegible]	30,243	15,077	1,214,652
1994	1,819	1,680	31,174	17,181	1,243,891
1995	1,846	2,322	33,667	17,774	1,271,785
1996	2,089	1,841	34,715	18,034	1,292,073
1997	1,758	1,997	34,605	18,562	1,314,507
1998	2,239	2,231	36,546	18,978	1,335,038
1999	2,849	2,405	38,361	19,5[illegible]1	1,362,771
2000	2,390	2,301	38,928	20,064	1,389,477
2001	2,268	2,407	39,909	20,637	1,414,860
2002	1,126	2,319	39,638	21,188	1,439,529
2003	782	2,416	40,142	21,739	1,463,674
2004	790	2,470	41,101	22,292	1,487,485
2005	812	2,517	42,058	22,843	1,511,140
2006	831	2,564	42,925	23,393	1,534,799
2007	849	2,611	43,767	23,943	1,558,513

FLORIDA POWER CORPORATION

SCHEDULE 3.1.1
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
BASE CASE

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1988	5,518	500	4,337	222	258	34	N/A	41	126	4,837
1989	6,045	623	4,633	276	300	34	N/A	46	133	5,256
1990	6,166	641	4,733	230	342	35	N/A	49	136	5,374
1991	6,128	684	4,699	207	313	36	N/A	53	136	5,383
1992	6,465	827	4,927	186	287	39	N/A	58	141	5,754
1993	6,913	848	5,016	274	502	48	N/A	70	155	5,864
1994	6,880	801	5,003	262	527	52	N/A	81	154	5,804
1995	7,510	886	5,522	[illegible]	502	55	N/A	101	160	6,408
1996	7,464	824	5,416	309	528	67	37	116	167	6,340
1997	7,786	872	5,696	285	509	78	46	130	170	6,568
1998	8,261	1,341	5,659	272	538	87	48	147	169	7,000
1999	8,681	1,518	5,799	331	557	98	49	155	174	7,317
2000	8,620	1,262	5,943	345	574	107	51	165	173	7,205
2001	8,883	1,348	6,075	350	592	116	52	174	176	7,423
2002	8,593	945	6,212	295	608	126	54	181	172	7,157
2003	8,176	381	6,352	278	622	134	55	188	166	6,733
2004	8,387	437	6,511	271	622	134	55	188	169	6,948
2005	8,599	494	6,670	265	622	134	55	188	171	7,164
2006	8,812	552	6,829	258	622	134	55	188	174	7,381
2007	9,029	610	6,987	256	622	134	55	188	177	7,597

NOTE : COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION

FLORIDA POWER CORPORATION

SCHEDULE 3.1.2
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
HIGH LOAD FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1988	5,518	500	4,337	222	258	34	N/A	41	126	4,837
1989	6,045	623	4,633	276	300	34	N/A	46	133	5,236
1990	6,166	641	4,733	230	342	35	N/A	49	136	5,374
1991	6,128	684	4,699	207	313	36	N/A	53	136	5,383
1992	6,465	827	4,927	186	287	39	N/A	58	141	5,754
1993	6,913	848	5,016	274	502	48	N/A	70	155	5,864
1994	6,880	801	5,003	262	527	52	N/A	81	154	5,804
1995	7,510	886	5,522	284	502	55	N/A	101	160	6,408
1996	7,464	824	5,416	30[illegible]	528	67	37	116	167	6,240
1997	7,786	872	5,696	285	509	78	46	130	170	6,568
1998	8,401	1,341	5,799	272	538	87	48	147	169	7,140
1999	8,833	1,518	5,951	331	557	98	49	155	174	7,469
2000	8,830	1,262	6,153	345	574	107	51	165	173	7,415
2001	9,093	1,348	6,285	350	592	116	52	174	176	7,633
2002	8,872	945	6,491	295	608	126	54	181	172	7,436
2003	8,489	381	6,665	278	622	134	55	188	166	7,046
2004	8,802	437	6,926	271	622	134	55	188	169	[illegible]
2005	8,992	4[illegible]4	7,063	265	622	134	55	188	171	[illegible]
2006	9,286	552	7,303	258	622	134	55	188	174	7,835
2007	9,551	610	7,509	256	622	134	55	188	177	8,119

NOTE: COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION.

FLORIDA POWER CORPORATION

SCHEDULE 3.1.3
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
LOW LOAD FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1988	5,518	500	4,337	222	258	34	N/A	41	126	4,837
1989	6,045	623	4,633	276	300	34	N/A	46	133	5,256
1990	6,166	641	4,733	230	342	35	N/A	49	136	5,374
1991	6,128	684	4,699	207	313	36	N/A	53	136	5,383
1992	6,465	827	4,927	186	287	39	N/A	58	141	5,754
1993	6,913	848	5,016	274	502	48	N/A	70	155	5,864
1994	6,880	801	5,003	262	527	52	N/A	81	154	5,804
1995	7,510	886	5,522	28[illegible]	502	55	N/A	101	160	6,408
1996	7,464	824	5,416	309	528	67	37	116	167	6,240
1997	7,786	872	5,696	285	509	78	46	130	170	6,568
1998	8,088	1,341	5,486	272	538	87	48	147	169	6,827
1999	8,476	1,518	5,594	331	557	98	49	155	174	7,112
2000	8,395	1,262	5,718	345	574	107	51	165	173	6,980
2001	8,601	1,348	5,793	350	592	116	52	174	176	7,141
2002	8,293	945	5,912	295	608	126	54	181	172	6,857
2003	7,830	381	6,006	278	622	134	55	188	166	6,387
2004	8,002	437	6,126	271	622	134	55	188	169	6,563
2005	8,162	494	6,233	265	622	134	55	188	171	6,727
2006	8,323	552	6,342	258	622	134	55	188	174	6,894
2007	8,480	610	6,438	256	622	134	55	188	177	7,048

NOTE: COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION

FLORIDA POWER CORPORATION

SCHEDULE 3.2.1
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
BASE CASE

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1987/88	6,367	713	4,869	229	328	50	N/A	40	138	5,582
1988/89	6,873	639	5,261	237	493	52	N/A	44	147	5,900
1989/90	7,366	958	5,656	0	503	52	N/A	47	150	6,614
1990/91	6,312	796	4,574	196	490	51	N/A	52	153	5,370
1991/92	7,159	1,005	5,063	210	611	60	N/A	55	155	6,068
1992/93	6,516	876	4,608	150	599	67	N/A	57	159	5,484
1993/94	7,185	1,004	4,901	199	759	90	N/A	67	165	5,905
1994/95	8,975	1,169	6,223	280	997	101	N/A	74	131	7,392
1995/96	10,350	1,486	7,263	45	1,146	105	10	94	201	8,749
1996/97	8,486	1,228	5,624	290	901	133	16	104	190	6,852
1997/98	9,333	1,384	6,222	263	1,014	147	17	109	177	7,606
1998/99	9,909	1,724	6,342	318	1,046	163	17	113	184	8,066
1999/00	10,127	1,736	6,465	340	1,081	180	18	121	186	8,201
2000/01	10,446	1,870	6,582	348	1,115	196	18	127	190	8,432
2001/02	10,202	1,493	6,701	312	1,148	211	19	132	186	8,194
2002/03	9,799	954	6,822	282	1,179	226	19	137	180	7,776
2003/04	10,036	1,035	6,982	275	1,179	226	19	137	183	8,017
2004/05	10,273	1,117	7,141	268	1,179	226	19	137	186	8,258
2005/06	10,510	1,199	7,299	262	1,179	226	19	137	189	8,498
2006/07	10,749	1,284	7,457	255	1,179	226	19	137	192	8,741
2007/08	10,997	1,368	7,615	257	1,179	226	19	137	196	8,983

NOTE: COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION

FLORIDA POWER CORPORATION

SCHEDULE 3.2.2
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
HIGH LOAD FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1987/88	6,367	713	4,869	229	328	50	N/A	40	138	5,582
1988/89	6,873	639	5,261	237	493	52	N/A	44	147	5,900
1989/90	7,366	958	5,656	0	503	52	N/A	47	150	6,614
1990/91	6,312	796	4,574	196	490	51	N/A	52	153	5,370
1991/92	7,159	1,005	5,063	210	611	60	N/A	55	155	6,068
1992/93	6,516	876	4,608	150	599	67	N/A	57	159	5,484
1993/94	7,185	1,004	4,901	199	759	90	N/A	67	165	5,905
1994/95	8,975	1,169	6,223	280	997	101	N/A	74	131	7,392
1995/96	10,350	1,486	7,263	45	1,146	105	10	94	201	8,749
1996/97	8,486	1,228	5,624	290	901	133	16	104	190	6,852
1997/98	9,496	1,384	6,385	263	1,014	147	17	109	177	7,769
1998/99	10,084	1,724	6,517	318	1,046	163	17	115	184	8,241
1999/00	10,368	1,736	6,706	340	1,081	180	18	121	186	8,442
2000/01	10,687	1,870	6,823	348	1,115	196	18	127	190	8,693
2001/02	10,520	1,493	7,019	312	1,148	211	19	132	186	8,512
2002/03	10,154	954	7,178	282	1,179	226	19	137	180	8,132
2003/04	10,506	1,035	7,452	275	1,179	226	19	137	183	8,487
2004/05	10,718	1,117	7,586	268	1,179	226	19	137	186	8,703
2005/06	11,045	1,199	7,833	262	1,179	226	19	137	189	9,032
2006/07	11,336	1,204	8,044	255	1,179	226	19	137	192	9,328
2007/08	11,706	1,368	8,324	257	1,179	226	19	137	196	9,692

NOTE: COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION

FLORIDA POWER CORPORATION

SCHEDULE 3.2.3
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
LOW LOAD FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
1987/88	6,367	713	4,869	229	328	50	N/A	40	138	5,582
1988/89	6,873	639	5,261	237	493	52	N/A	44	147	5,900
1989/90	7,366	958	5,656	0	503	52	N/A	47	150	6,614
1990/91	6,312	796	4,574	196	490	51	N/A	52	153	5,370
1991/92	7,159	1,005	5,063	210	611	60	N/A	55	155	6,068
1992/93	6,516	876	4,608	150	599	67	N/A	57	159	5,484
1993/94	7,185	1,004	4,901	199	759	90	N/A	67	165	5,905
1994/95	8,975	1,169	6,223	280	997	101	N/A	74	131	7,392
1995/96	10,350	1,486	7,263	45	1,146	105	10	94	201	8,749
1996/97	8,486	1,228	5,624	29[illegible]	901	133	16	104	190	6,852
1997/98	9,135	1,384	6,024	263	1,014	147	17	109	177	7,408
1998/99	9,675	1,724	6,108	318	1,046	163	17	115	184	7,832
1999/00	9,869	1,736	6,207	340	1,081	180	18	121	186	7,943
2000/01	10,125	1,870	6,261	348	1,115	196	18	127	190	8,131
2001/02	9,859	1,493	6,358	312	1,148	211	19	132	186	7,851
2002/03	9,405	954	6,429	282	1,179	226	19	137	180	7,383
2003/04	9,599	1,035	6,545	275	1,179	226	19	137	183	7,580
2004/05	9,779	1,117	6,647	268	1,179	226	19	137	186	7,764
2005/06	9,962	1,199	6,750	262	1,179	226	19	137	189	7,949
2006/07	10,131	1,284	6,839	255	1,179	226	19	137	192	8,123
2007/08	10,352	1,368	6,970	257	1,179	226	19	137	196	8,338

NOTE: COLUMN (OTH) INCLUDES DEMAND REDUCTIONS FOR LOAD CONTROL PROGRAMS (HEATWORKS AND VOLTAGE REDUCTION) AND CUSTOMER-OWNED SELF-SERVICE COGENERATION

SCHEDULE 3.3.1
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
BASE CASE

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR %
1988	26,582	156	119	459	22,692	1,432	1,724	25,848	47.6
1989	28,606	165	131	463	24,123	1,529	2,195	27,847	51.8
1990	28,589	173	145	466	24,880	1,548	1,377	27,805	46.6
1991	29,217	166	156	506	25,179	1,411	1,799	28,389	53.5
1992	29,579	174	170	533	25,414	1,471	1,817	28,702	46.8
1993	31,178	188	195	552	26,528	1,695	2,020	30,243	55.5
1994	32,133	205	220	534	27,675	1,819	1,680	31,174	51.2
1995	34,653	219	246	521	29,499	1,846	2,322	33,667	49.8
1996	35,789	234	272	568	30,785	2,089	1,841	34,715	44.9
1997	35,767	252	324	586	30,850	1,758	1,997	34,605	57.7
1998	37,745	272	351	576	32,077	2,239	2,231	36,546	54.9
1999	39,614	294	380	579	33,107	2,849	2,405	38,361	54.3
2000	40,241	316	412	585	34,236	2,390	2,301	38,928	54.0
2001	41,275	336	443	587	35,234	2,268	2,407	39,909	53.9
2002	41,051	355	468	590	36,194	1,126	2,319	39,638	55.2
2003	41,597	374	489	592	36,944	782	2,416	40,142	58.9
2004	42,556	374	489	592	37,842	790	2,470	41,101	58.4
2005	43,513	374	489	592	38,729	812	2,517	42,058	58.1
2006	44,380	374	489	592	39,530	831	2,564	42,925	57.7
2007	45,222	374	489	592	40,306	849	2,611	43,767	57.2

NOTE: COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS.

FLORIDA POWER CORPORATION

SCHEDULE 3.3.2
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
HIGH LOAD FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM / IND CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR %
1988	26,582	156	119	459	22,692	1,432	1,724	25,848	47.6
1989	28,606	165	131	463	24,123	1,529	2,195	27,847	51.8
1990	28,589	173	145	466	24,880	1,548	1,377	27,805	46.6
1991	29,217	166	156	506	25,179	1,411	1,799	28,389	53.5
1992	29,579	174	170	533	25,414	1,471	1,817	28,702	46.8
1993	31,178	186	195	552	26,528	1,695	2,020	30,243	55.5
1994	32,133	205	220	534	27,675	1,819	1,680	31,174	51.2
1995	34,653	219	246	521	29,499	1,846	2,322	33,667	49.8
1996	35,789	234	272	568	30,785	2,089	1,841	34,715	44.9
1997	35,767	252	324	586	30,850	1,758	1,997	34,605	57.7
1998	38,432	272	351	576	32,689	2,239	2,305	37,233	54.7
1999	40,406	294	380	579	33,846	2,849	2,458	39,153	54.2
2000	41,231	316	412	585	35,167	2,390	2,361	39,918	53.8
2001	42,392	336	443	587	36,272	2,268	2,486	41,026	53.9
2002	42,528	355	468	590	37,581	1,126	2,408	41,115	55.1
2003	43,274	374	489	592	38,509	782	2,528	41,819	58.7
2004	44,637	374	489	592	39,809	790	2,583	43,182	57.9
2005	45,625	374	489	592	40,705	812	2,653	44,170	57.9
2006	46,910	374	489	592	41,910	831	2,713	45,455	57.5
2007	48,018	374	489	592	42,928	849	2,785	46,563	57.0

NOTE : COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS

FLORIDA POWER CORPORATION

SCHEDULE 3.3.3
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
LOW L AD FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM. / IND. CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR %
1988	26,582	156	119	459	22,692	1,432	1,724	25,848	47.6
1989	28,606	165	131	463	24,123	1,529	2,195	27,847	51.8
1990	28,589	173	145	466	24,880	1,548	1,377	27,805	46.6
1991	29,217	166	156	506	25,179	1,411	1,799	28,389	53.5
1992	29,579	174	170	533	25,414	1,471	1,817	28,702	46.8
1993	31,178	188	195	552	26,528	1,695	2,020	30,243	55.5
1994	32,133	205	220	534	27,675	1,819	1,680	31,174	51.2
1995	34,653	219	246	521	29,499	1,846	2,322	33,667	49.8
1996	35,789	234	272	568	30,785	2,089	1,841	34,715	44.9
1997	35,767	252	324	586	30,850	1,758	1,997	34,605	57.7
1998	36,858	272	351	576	31,289	2,239	2,132	35,659	54.9
1999	[illegible]561	294	380	579	32,117	2,849	2,341	37,308	54.4
2000	[illegible].062	316	412	585	33,136	2,390	2,223	37,749	54.1
2001	39,807	336	443	587	33,852	2,268	2,321	38,441	54.0
2002	39,458	355	468	590	34,699	1,126	2,220	38,045	55.3
2003	39,758	374	489	592	35,216	782	2,305	38,303	59.2
2004	40,500	374	489	592	35,911	790	2,344	39,045	58.6
2005	41,179	374	489	592	36,535	812	2,377	39,724	58.4
2006	41,776	374	489	592	37,084	831	2,405	40,321	57.9
2007	42,299	374	489	592	37,550	849	2,445	40,844	57.4

NOTE: COLUMN (OTH) INCLUDES CONSERVATION ENERGY FOR LIGHTING AND PUBLIC AUTHORITY CUSTOMERS, CUSTOMER-OWNED SELF-SERVICE COGENERATION AND LOAD CONTROL PROGRAMS.

FLORIDA POWER CORPORATION

SCHEDULE 4
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	1997		1998		1999	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	8,066	2,711	7,606	2,827	8,066	2,936
FEBRUARY	5,794	2,250	7,225	2,606	7,676	2,717
MARCH	5,028	2,560	5,930	2,693	6,351	2,810
APRIL	5,085	2,393	4,896	2,540	5,308	2,653
MAY	6,798	2,949	5,739	3,178	6,171	3,350
JUNE	6,964	3,192	6,633	3,390	6,948	3,539
JULY	7,462	3,613	6,889	3,805	7,211	3,980
AUGUST	7,300	3,644	7,000	3,750	7,317	3,941
SEPTEMBER	6,932	3,360	6,632	3,480	6,941	3,662
OCTOBER	6,426	2,816	5,531	2,892	5,951	3,056
NOVEMBER	5,239	2,363	5,402	2,566	5,806	2,708
DECEMBER	6,608	2,754	6,698	2,819	7,080	3,009
TOTAL		34,605		36,546		38,361

FUEL REQUIREMENTS and ENERGY SOURCES

FPC's two-year actual and ten-year projected nuclear, coal, oil, and gas requirements (by fuel units) are shown on Schedule 5. FPC's two-year actual and ten-year projected energy sources in GWh and percent, are shown by fuel type on Schedules 6.1 and 6.2, respectively. FPC's fuel requirements and energy sources reflect a diverse fuel supply system which is not dependent on any one fuel source. FPC expects its fuel diversity to be further enhanced with the addition of future planned combined cycle generation units fueled by natural gas. Natural gas consumption is projected to increase as plants are added to meet future load growth. FPC's coal, nuclear, and purchased power requirements are projected to remain relatively stable over the planning horizon.

SCHEDULE 5

FUEL REQUIREMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-	-ACTUAL-										
	FUEL REQUIREMENTS		UNITS	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(1)	NUCLEAR		TRILLION BTU	23	0	59	60	67	60	67	60	67	60	67	60
(2)	COAL		1,000 TON	5,769	6,080	5,652	5,693	5,030	5,171	5,065	5,271	5,126	4,882	4,594	4,777
(3)	RESIDUAL	TOTAL	1,000 BBL	8,129	9,124	6,246	5,225	5,083	5,504	5,122	5,445	5,887	5,045	5,559	4,751
(4)		STEAM	1,000 BBL	8,129	9,124	6,246	5,225	5,083	5,504	5,122	5,445	5,887	5,045	5,559	4,751
(5)		CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CT	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)	DISTILLATE	TOTAL	1,000 BBL	1,263	1,108	1,038	1,079	1,098	1,254	1,141	1,092	1,427	1,132	1,308	1,073
(9)		STEAM	1,000 BBL	183	81	598	645	601	632	649	601	637	690	625	706
(10)		CC	1,000 BBL	0	0	4	20	2	1	1	1	2	2	5	10
(11)		CT	1,000 BBL	1,080	1,027	436	414	495	621	491	490	788	440	678	357
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	11,664	23,644	34,907	48,414	54,926	60,464	56,531	64,267	65,229	77,690	80,326	90,450
(14)		STEAM	1,000 MCF	5,126	3,599	5,768	4,984	4,232	3,590	3,136	3,236	3,435	2,932	2,251	2,077
(15)		CC	1,000 MCF	0	5,793	14,730	29,731	37,264	41,093	39,672	40,916	43,683	63,021	63,427	77,822
(16)		CT	1,000 MCF	6,538	14,252	14,409	13,699	13,430	15,781	15,723	20,115	18,111	11,737	14,648	10,551
(17)	OTHER (SPECIFY)			0	0	0	0	0	0	0	0	0	0	0	0

SCHEDULE 6.1

ENERGY SOURCES (GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-	-ACTUAL-										
	ENERGY SOURCES		UNITS	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(1)	ANNUAL FIRM INTERCHANGE 1/		GWh	1,090	1,138	104	112	141	186	139	207	193	180	221	137
(2)	NUCLEAR		GWh	2,186	0	[illegible]	5,577	6,257	5,577	6,240	5,577	6,257	5,577	6,240	5,577
(3)	COAL		GWh	15,216	15,977	15,094	15,234	13,438	13,848	13,515	14,121	13,701	12,982	12,222	12,716
(4)	RESIDUAL	TOTAL	GWh	5,207	5,875	3,922	3,233	3,189	3,472	3,198	3,448	3,732	3,125	3,495	2,926
(5)		STEAM	GWh	5,207	5,875	3,922	3,233	3,189	3,472	3,198	3,448	3,732	3,125	3,495	2,926
(6)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(7)		CT	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(8)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(9)	DISTILLATE	TOTAL	GWh	427	436	211	201	240	301	238	239	381	214	329	174
(10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(12)		CT	GWh	427	436	211	201	240	301	238	239	381	214	329	174
(13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	NATURAL GAS	TOTAL	GWh	1,068	2,283	3,713	5,772	6,779	7,488	7,056	7,756	8,036	10,296	10,508	12,235
(15)		STEAM	GWh	492	351	542	468	382	330	270	282	302	[illegible]	188	164
(16)		CC	GWh	0	789	1,997	4,184	5,297	5,876	5,663	5,849	6,262	[illegible]	9,118	11,188
(17)		CT	GWh	576	1,143	1,174	1,120	1,100	1,282	1,123	1,625	1,472	[illegible]	1,202	883
(18)	OTHER 2/														
	QF PURCHASES		GWh	7,246	6,311	6,010	6,010	6,026	6,643	6,572	6,549	6,567	6,549	6,549	6,542
	IMPORT FROM OUT OF STATE		GWh	2,553	2,649	1,944	2,222	2,858	2,394	2,680	2,245	2,234	[illegible]	3,361	3,460
	EXPORT TO OUT OF STATE		GWh	-278	-64	0	0	0	0	0	0	0	0	0	0
(19)	NET ENERGY FOR LOAD		GWh	34,715	34,605	36,546	38,361	38,928	39,909	39,638	40,142	41,101	[illegible]	42,925	43,767

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN PENINSULAR FLORIDA.

2/ NET ENERGY PURCHASED (+) OR SOLD (-)

FLORIDA POWER CORPORATION

SCHEDULE 6.2

ENERGY SOURCES (PERCENT)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-	-ACTUAL-										
ENERGY SOURCES			UNITS	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
(1) ANNUAL FIRM INTERCHANGE 1 /			%	3.1%	3.3%	0.3%	0.3%	0.4%	0.5%	0.4%	0.5%	0.5%	0.4%	0.5%	0.3%
(2) NUCLEAR			%	6.3%	0.0%	15.2%	14.5%	16.1%	14.0%	15.7%	13.9%	15.2%	13.3%	14.5%	12.7%
(3) COAL			%	43.8%	46.2%	41.3%	39.7%	34.5%	34.7%	34.1%	35.2%	33.3%	30.9%	28.5%	29.1%
(4) RESIDUAL		TOTAL	%	15.0%	17.0%	10.7%	8.4%	8.2%	8.7%	8.1%	8.6%	9.1%	7.4%	8.1%	6.7%
(5)		STEAM	%	15.0%	17.0%	10.7%	8.4%	8.2%	8.7%	8.1%	8.6%	9.1%	7.4%	8.1%	6.7%
(6)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(7)		CT	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(8)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(9) DISTILLATE		TOTAL	%	1.2%	1.3%	0.6%	0.5%	0.6%	0.8%	0.6%	0.6%	0.9%	0.5%	0.8%	0.4%
(10)		STEAM	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(11)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(12)		CT	%	1.2%	1.3%	0.6%	0.5%	0.6%	0.8%	0.6%	0.6%	0.9%	0.5%	0.8%	0.4%
(13)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(14) NATURAL GAS		TOTAL	%	3.1%	6.6%	10.2%	15.0%	17.4%	18.8%	17.8%	19.3%	19.6%	24.5%	24.5%	28.0%
(15)		STEAM	%	1.4%	1.0%	1.5%	1.2%	1.0%	0.8%	0.7%	0.7%	0.7%	0.6%	0.4%	0.4%
(16)		CC	%	0.0%	2.3%	5.5%	10.9%	13.6%	14.7%	14.3%	14.6%	15.2%	21.6%	21.2%	25.6%
(17)		CT	%	1.7%	3.3%	3.2%	2.9%	2.8%	3.2%	2.8%	4.0%	3.6%	2.3%	2.8%	2.0%
(18) OTHER 2 /															
QF PURCHASES			%	20.9%	18.2%	16.4%	13.7%	15.5%	16.6%	16.6%	16.3%	16.0%	15.6%	15.3%	14.9%
IMPORT FROM OUT OF STATE			%	7.1%	7.7%	5.3%	5.8%	7.3%	6.0%	6.8%	5.6%	5.4%	7.5%	7.8%	7.9%
EXPORT TO OUT OF STATE			%	-0.8%	-0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(19) NET ENERGY FOR LOAD			%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1 / NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN PENINSULAR FLORIDA.

2 / NET ENERGY PURCHASED (+) OR SOLD (-).

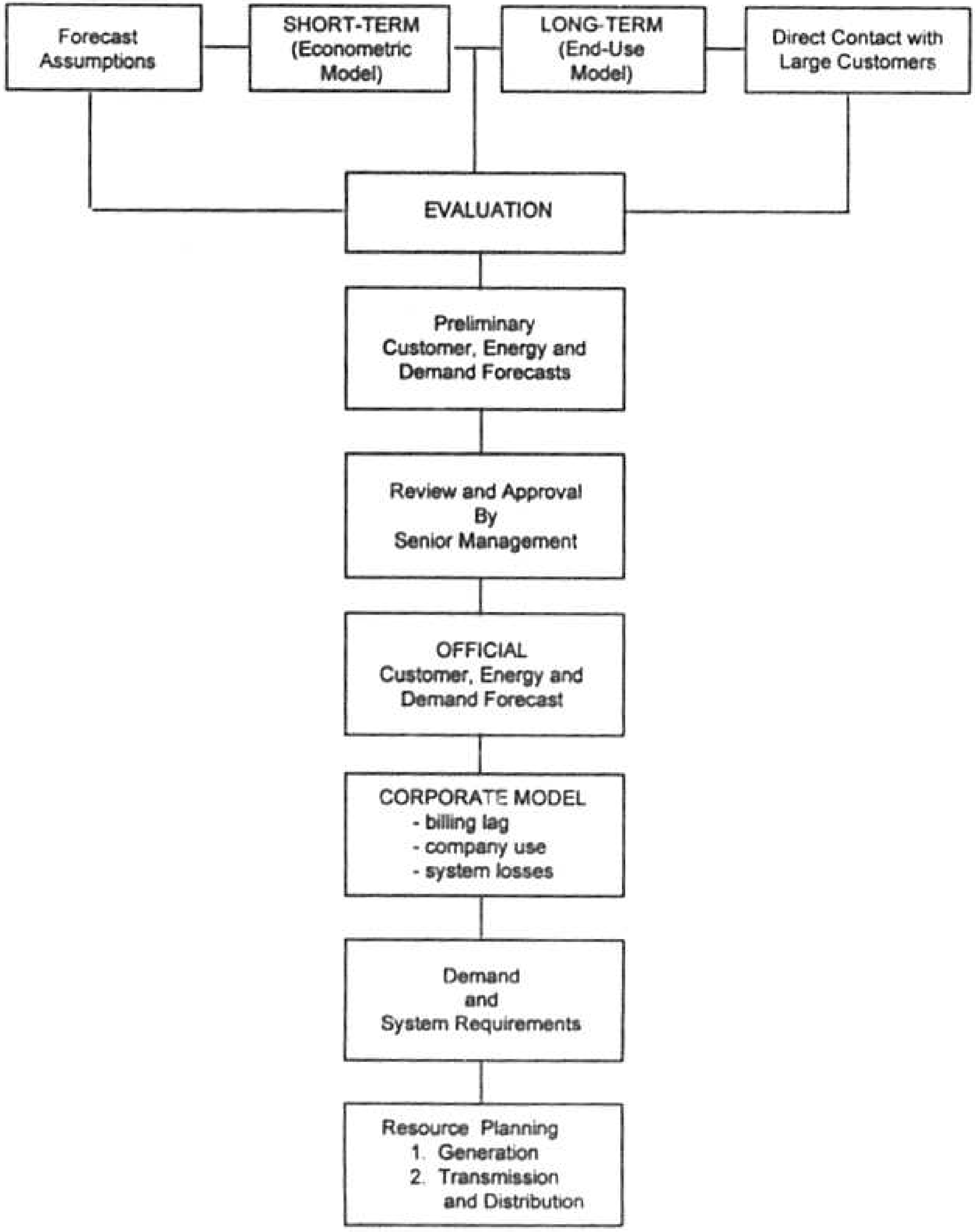
FORECASTING METHODS AND PROCEDURES

INTRODUCTION

The need for accurate forecasts of long-range electric energy consumption, customer growth, peak demand and system load shape is an important planning function for any electric utility. Risks involved with being in an over-or-under capacity situation can have a significant financial impact on a utility operating in either a competitive marketplace or the regulatory arena. Accurate projections of a utility's future growth require forecasting methodologies with the ability to account for a variety of factors influencing electric energy usage in both the short-term and long-term planning horizons. FPC's forecasting system utilizes the System for Hourly and Annual Peak and Energy Simulation (SHAPES-PC) end-use forecasting system as well as short-term econometric models to achieve this end. This chapter will describe the underlying methodology of both the econometric and end-use models including the assumptions incorporated in each. Also included is a description as to how Demand-Side Management (DSM) impacts affect the forecast, the development of high and low forecast scenarios, and a review of the DSM programs.

The following flow diagram entitled "Customer, Energy and Demand Forecast" gives a general description of FPC's forecasting process. Highlighted in the diagram is the blending of short-term and long-term modeling techniques based on a specific set of assumptions. Also incorporated is some direct contact with large customers, which gives the forecaster the tools to mold a most likely scenario of the future.

CUSTOMER, ENERGY AND DEMAND FORECAST



FORECAST ASSUMPTIONS

The first step in any forecasting effort is the development of assumptions upon which the forecast is based. The Load Forecasting section of the Business Planning Department develops these assumptions based on discussions with a number of departments within FPC, as well as through the research efforts of a number of external sources. These assumptions specify major factors that influence the level of customers, energy sales, or peak demand over the forecast horizon. The following set of assumptions form the basis for the forecast presented in this document.

GENERAL ASSUMPTIONS

1. Normal weather conditions are assumed. Normal weather reflects a ten-year average of service-area-weighted degree days in order to project kilowatt-hour sales. Similarly, a ten-year average of service area weighted temperatures at system seasonal peak is assumed to forecast megawatt peak demand.

2. The population projection produced by the Bureau of Economic and Business Research (BEBR) at the University of Florida provides the basis for development of the customer forecast. This forecast incorporates "Population Studies," Bulletin No. 117, February 1997 as well as The Florida Long Term Forecast 1997.

3. FPC's energy intensive phosphate mining customers are coming off a level of increased power consumption not seen in over a decade. Improved market conditions for phosphate rock, both at home and abroad, had firmed-up market prices and allowed for expansion of operations at new sites. Industry consolidation in the past few years assures a greater supply and demand balance in the years ahead. A short-term reduction in power consumption from FPC will take place as IMC-Agrico shuts down mining operations in FPC territory. The return of some portion of this load in the Hardee county mining area is expected before the end of the 1990's. The outlook for increased power consumption in this industry recognizes the risks brought on by competitive pressures to serve high-use customers as well as exchange rate risks dealing with foreign trade issues. The projection of possible load additions has been tempered in the post-2000 time period.

4. Florida Power Corporation supplies capacity and energy service to wholesale customers on a full, partial and supplemental requirements basis. Full requirements customers' demand and energy are assumed to grow at rates determined by projected population levels as well as projected economic activity. Partial requirements customers' load is assumed to reflect the current contractual obligations received by FPC. The forecast of energy and demand

from partial requirements customers reflect their ability to receive dispatched energy from the Florida broker system any time it is more economical to do so. FPC's arrangement with Seminole Electric Cooperative, Incorporated is to serve "supplemental" service over and above annual levels of self-generation and firm purchase contracts. SECI's projection of their system's demand and energy requirements serves as the basis of our projection for this customer. This forecast also includes five wholesale bulk power contracts. The first is a multi-part contract with SECI to serve 605 MW for three years beginning in 1999 and ending in 2001. An option to extend 455 MW of this load for an additional seven years existed but has not been exercised. A second 3-year agreement with SECI to sell up to 300 MW of peaking power beginning in 2000 has also been reflected in the forecast. The other three bulk power contracts are summer firm contract sales at varying annual capacity levels with Georgia Power Company and the Municipal Electric Authority of Georgia (both for 1998-1999), and Oglethorpe Power Corporation (1998).

5. This forecast incorporates demand and energy reductions from FPC's dispatchable and non-dispatchable DSM programs required to meet the approved goals set by the Florida Public Service Commission.

6. The expected energy and demand impacts of self-service cogeneration are subtracted from the forecast. The forecast assumes that FPC will supply the supplemental load of self-service cogeneration customers. Supplemental load is defined as the cogeneration customers' total electric load requirements less their normal generation output. While FPC offers "standby" service to all cogeneration customers, this forecast does not assume an unplanned need for standby power during peak periods.

7. This forecast assumes that the regulatory environment and the obligation to serve will continue throughout the forecast horizon. Wholesale customers that have given notice of contract termination are not included in the projections of energy and demand once their contract term expires.

8. The economic outlook for this 20-year forecast attempts to describe the short-term outlook for the current business cycle as well as the long-term trend behavior for the economy. It is important to note, however, that identification of the long-term trend in economic/demographic conditions represents the primary focus of this forecast. The purpose of the short-term outlook is only to show how the current business cycle is expected to evolve and eventually blend into the long-term. Beyond the short-term time horizon, only the long-run trends in economic and demographic conditions that cut through the peaks and troughs of future business cycles are considered in this forecast.

SHORT-TERM ECONOMIC ASSUMPTIONS

The economic outlook for the first five years of this forecast calls for continued, moderate economic growth throughout the forecast horizon. No "shocks" to any supply or demand conditions in the national economy are expected and thus no economic recession is incorporated in this forecast. Unemployment is at a 25-year low nationwide, resulting in greater spending power for the consumer and a high level of optimism in the economy. Looking ahead, however, growth will be slower than recently experienced. Federal Reserve Board (FRB) efforts will keep inflationary pressures from building by applying tighter monetary policy. This will result in higher interest rates in the short term and slow the economy. As we move further through the forecast period, federal government efforts to balance the federal budget will place downward pressure on interest rates. Lower government spending means the government will be less of a consumer in the national economy, thus creating a lighter demand for credit in the marketplace. On a regional scale, interest rate levels will continue to drive the pace of economic growth in Florida through their impact on the construction and tourism industries.

Personal income is expected to continue growing, but not at the pace experienced in recent years. Employment growth will moderate from the strong pace experienced over the past two years, resulting in reduced growth in total wages. Slower growth in hourly earnings as well as transfer payments is also seen as holding down income growth in the years ahead. Export-related job growth is expected to fare well in the years ahead as the State of Florida has positioned itself well for trade with Latin America. The strong dollar of late may stall further job gains in this sector temporarily, but the globalization of the world economy will encourage Florida exports as well as attract higher numbers of foreign tourists to Florida.

The cost of electricity is projected to decline in real dollar terms, which will result in greater average use by retail customers. Also contributing to this trend, according to home builders' surveys, is the demand for larger living quarters and increased median square footage in newly constructed homes and apartments. Larger living areas mean higher heating and air conditioning use. This trend, along with increased saturation of electric appliances, will boost average electricity consumption per customer.

LONG-TERM

The long-term economic outlook assumes that changes in economic and demographic conditions will follow a trended behavior pattern. The main focus involves identifying these trends. No attempt is made to predict business cycle fluctuations during this period.

Population Growth Trends

This forecast assumes Florida will experience slower in-migration and population growth over the long term, as reflected in the BEBR projections.

- o Florida's climate and low cost of living have historically attracted a major share of the retirement population from the eastern half of the United States. This will continue to occur, but at less than historic rates for two reasons. First, Americans entering retirement age during the 1990s and early 2000s were born during the Great Depression era of the 1930s. This decade experienced a low birth rate due to the economic conditions at that time. Sixty years later, there now exists a smaller pool of retirees capable of migrating to Florida. Second, the enormous growth in population and corresponding development of the 1980s made portions of Florida less desirable for retirement living. This diminished quality of retiree life, along with increasing competition from neighboring states for the retirement population, is expected to cause a slight decline in Florida's share of these prospective new residents over the long term.

- o With the bulk of Florida's in-migrants under age 45, the baby boom generation born between 1945 and 1963 helped fuel the rapid population increase Florida experienced during the 1980s. Coupling this with two other events of the 1980s -- airline deregulation that lowered airfares, thereby increasing accessibility to Florida, and a recession in the oil-producing states that historically pulled a percentage of their labor pools from Florida -- one begins to realize that these conditions will not recur in the foreseeable future. In fact, slower population in-migration to Florida can be expected as the baby boom generation enters the 40's and 50's age bracket. This age group has been significantly characterized as immobile when studies concerning interstate population flows or job changes are conducted.

Economic Growth Trends

o Florida's rapid population growth of the 1980s created a period of strong job creation, especially in the service sector industries of the state economy. While the service-oriented economy expanded to support the increasing population level, there were also significant numbers of corporations migrating to Florida capitalizing on the low cost/low tax business environment. In this situation, increased job opportunities in Florida created greater in-migration among the nation's working age population. Florida's ability to attract businesses from other states because of its "comparative advantage" is expected to continue throughout the forecast period. Of long-term concern, however, is the passage of the North American Free Trade Agreement (NAFTA). At risk here is the bypassing of Florida by companies looking to relocate to a lower cost foreign environment. Mexico is expected to attract a formidable share of American manufacturing jobs that may have moved to Florida. Also, the stability of Florida's citrus and vegetable industry may be threatened when faced with greater competition from Mexico as tariffs are eliminated.

o The forecast assumes negative growth in real electricity price. That is, the change in the nominal, or current dollar, price of electricity over time is expected to be less than the overall rate of inflation. This also implies that fuel price escalation will track at or below the general rate of inflation throughout the forecast horizon.

o Real per capita personal incomes are assumed to increase throughout the forecast period and thereby boost the average customer's ability to purchase electricity -- especially since the price of electricity is expected to increase at a rate below general inflation. As incomes grow faster than the price of electricity, consumers will remain inclined to invest in additional electric technologies and increase their utilization of existing end-uses.

FORECAST METHODOLOGY

The long-term forecast of MWh sales is produced utilizing SHAPES-PC, a large scale end-use computer model. FPC has also developed short-term econometric models as a supplement to the long-term SHAPES-PC methodology. These short-term models are expressly designed to better capture the short-term business cycle fluctuations preceding the long-term trend path of customers' energy usage and peak demand. In particular, the monthly periodicity studied in this approach better captures near-term perturbations than the end-use forecasting framework. Also, easier and more timely model updates enable the short-term econometric model to more readily incorporate the most recent projections of input variables. Output from these short-term econometric models is used to develop the first five years of the load forecast. The SHAPES-PC model output is then used as the basis for the long-term forecast.

SHORT-TERM ECONOMETRIC MODEL

In the short-term econometric models, energy sales in major revenue classes that have historically shown a relationship to weather and economic/demographic indicators are modeled using monthly equations. Sales are regressed against "driver" variables that best explain monthly fluctuations over a historical sample period. Forecasts of these input variables are either derived internally or come from a review of the latest projections made by several independent forecasting concerns. These include Data Resources Incorporated (DRI), Blue Chip Economic Indicators, and the University of Florida's Bureau of Economic and Business Research. Internal company forecasts are used for projections of electric price, weather conditions and the average number of monthly billing days.

Projections of FPC's energy efficiency program impacts (conservation program reductions) and direct load control reductions are also incorporated into the short-term energy forecast. Specific sectors are modeled as follows:

Residential Sector

Residential KWh usage per customer is modeled as a function of real Florida personal income, cooling degree days, heating degree days, the real price of electricity to the residential class and the average number of billing days each sales month. This equation captures short-term movements in customer usage. Projections of KWh usage per customer combined with the customer forecast provides the forecast of total residential energy sales. The residential customer forecast is developed by correlating annual net new customers with FPC service area population growth. County population projections are developed by the University of Florida's BEBR.

Commercial Sector

Short-term commercial KWh use per customer is forecast based on commercial (non-agricultural, non-manufacturing and non-governmental) employment, the average number of billing days each month and heating and cooling degree days. The measure of cooling degree days utilized here differs slightly from that used in the residential sector reflecting the dissimilar behavior patterns of this class with respect to its cooling needs. Commercial customers are projected as a function of the number of residential customers served.

Industrial Sector

Energy sales to this sector are separated into two sub-sectors. A significant portion of the industrial energy use, 33 percent in 1997, was consumed by the phosphate mining industry. Because this one industry dominates such a significant share of the total industrial class, it is separated and modeled apart from the rest of the class. The term "non-phosphate industrial" is used to refer to those customers who comprise the remaining piece of total industrial class sales. Both groups are impacted by changes in short-term economic activity. However, adequately explaining sales levels require separate explanatory variables. Non-phosphate industrial energy sales are modeled using the U.S. industrial production index for manufacturing (excluding motor vehicles), the real price of electricity to the industrial class, and the average number of sales month billing days. The particular industrial production index used in this equation best characterizes the industry make-up of the FPC service area which lacks a significant automotive manufacturing sector.

The industrial phosphate energy sales sub-sector is modeled using customer-specific information regarding expected market conditions. Since this sub-sector is comprised of only five customers, the final forecast is heavily dependent upon information received from direct customer contact. FPC industrial customer representatives provide phosphate customer information regarding customer production schedules, area mine-out and start-up predictions, and changes in self-generation or energy supply situations over the near-term forecast horizon.

Other Retail Sectors

Street Lighting

Electricity sales to the street lighting class are projected to increase due to growth in the service area population base. Residential customers provide an excellent source of FPC specific data with which to capture the trends in historic and future population growth over time. A linear regression model based on the number of residential customers is used to forecast street lighting MWh sales.

Public Authorities

Energy Sales to Public Authorities (SPA), comprised mostly of government operated services is also projected using the short-term monthly econometric approach. The level of government services, and thus energy use, can be tied to the population base as well as to the state of the economy. Factors affecting population growth will impact the need for additional governmental services (i.e., schools, city services, etc.), thereby increasing SPA energy usage. Monthly government employment has been determined to be the best indicator of the level of government services provided. This variable, along with heating and cooling degree days and the average number of sales month billing days, results in a significant level of explained variation over the historical sample period. Intercept shift variables are also included in this model to account for the large change in school-related energy use in the billing months of January, July and August.

Sales For Resale Sector

The Sales For Resale sector encompasses all sales to other electric power entities. This includes sales to other utilities (municipal or investor owned) as well as power agencies (Rural Electric Authority (REA) or Municipal).

Seminole Electric Cooperative, Incorporated (SECI) is a wholesale, or sales for resale, customer of FPC on a supplemental contract basis. FPC provides service within a contractual framework for those energy requirements above the level of generation capacity served by SECI's own facilities or firm purchase obligations. SECI provides FPC with a forecast of monthly supplemental peak demands and energy for their load within the FPC control area. Monthly supplemental demands are calculated from the total demand levels they project in FPC's control area less their own resources. Beyond supplemental service, FPC has signed a bulk power agreement with SECI for intermediate and peaking generation. From the forecaster's standpoint, this contract has two pieces that impact the load and energy forecast directly. First, a 455 MW structured capacity contract beginning in 1999 and ending in 2001 is incorporated in the forecast. The option to extend this sale for seven additional years beginning in 2002 was not exercised by SECI. Second, the remaining 150 MW piece of the contract involves the sale of intermediate capacity for a minimum three year term and is assumed to continue through the end of the forecast horizon. Beginning in the year 2000, FPC will supply between 150 and 300 MW of peaking capacity. As was the case with the 150 MW intermediate contract, this new three-year contract displaces a piece of FPC's projected supplemental requirements.

A second bulk power contract customer is Oglethorpe Power Corporation (OPC). This customer has contracted with FPC to supplement its summer demand by 137 MW in 1998. Using information provided by the customer, it is projected that the full contracted MW amount will be required on-peak, but it will have a low load factor since this energy will be primarily used to help OPC meet summer peaking conditions. Two remaining years on a contract demand agreement with Georgia Power Company (GPC) is also included in the forecast. This contract is for FPC to supply GPC summer peaking capacity of 150 MW in both 1998 and 1999. The full amount of the contracted MW is expected to be called on by the customer, but with a low load factor. An additional summer sales contract to serve the Municipal Electric Authority of Georgia (MEAG) for 1998 and 1999, is also incorporated into the summer demand forecast at 75 MW.

The municipal sales for resale class includes a number of customers divergent not only in scope of service (i.e., full or partial requirement), but also in composition of ultimate consumers. Each customer is modeled separately in order to accurately reflect its individual profile. The majority of customers in this class are municipalities whose full energy requirements are met by FPC. The eight full requirements customers are modeled individually using local weather station data and population growth trends for that vicinity. Since the ultimate consumers of electricity in this sector are, to a large degree, residential and commercial customers, it is assumed that their use patterns will follow those of the FPC retail-based residential and commercial customer classes. Two of these full requirements customers, the cities of Alachua (High Springs Industrial Park) and Bartow, are assumed to be canceling service with FPC beginning August 1998 and November 1999, respectively. Both have sent notices to FPC opting to bid out of their electric service requirements and are not included in this forecast.

FPC provides partial requirements service to three municipalities (New Smyrna Beach, Kissimmee and St. Cloud), a power authority (Florida Municipal Power Agency) and a utility district (Reedy Creek Improvement District). In each case, these customers contract with FPC for a specific level and type of demand needed to provide their particular electrical system with an appropriate level of reliability. The terms of each contract are subject to change each year. This means that the level and type of demand under contract can increase or decrease for each year of their contract. The demand forecasts for the partial requirement wholesale customers are derived using their historical coincident demand to contract demand relationship (including transmission delivery losses). The demand projections for the Florida Municipal Power Agency also include a "losses service" MW amount to account for the transmission losses FPC incurs when "wheeling" power to their service area from other suppliers. The contract demand level for each partial requirement customer in its last contract year determines the load upon the FPC system for the remaining years of the forecast horizon.

The methodology for projecting MWh energy usage for the partial requirement (PR) customers differs slightly from customer to customer. This category of service is sporadic in nature and is exceptionally difficult to forecast because PR customers are capable of "brokering" their FPC capacity to purchase energy from other lower cost resources. For example, FMPA utilizes FPC's wholesale energy service only when more economical energy is unavailable. The forecast for FMPA is derived using annual historical load factor calculations to provide the expected level of energy sales based on the level of contracted MW nominated by FMPA. Average monthly to annual energy ratios are applied to the forecast in order to obtain monthly profiles. The remaining municipal PR customers are comprised of the Reedy Creek Improvement District (RCID) and the cities of New Smyrna Beach, Kissimmee and St. Cloud. Recent growth trends and historic load factor calculations are utilized to provide the expected level of MWh sales to these cities based on the MW level and stratification (base, intermediate, peaking) of power contracted as well as the individual profile of each contract. Again, these cities have alternative sources of supply to meet their needs. Purchases of energy from FPC will depend heavily on the price of available energy from other sources in the marketplace.

Demand-Side Management

Each projection of every retail class-of-business MWh energy sales forecast is reduced by estimated future energy savings due to FPC-sponsored and Florida Public Service Commission (FPSC)-approved dispatchable and non-dispatchable Demand-Side Management (DSM) programs. Estimated energy savings for every non-dispatchable DSM program are calculated on a program-by-program basis and aggregated for each class-of-business on the program. Dispatchable DSM program energy savings are estimated utilizing production costing models. These models determine the most cost-effective means to meet system requirements, including load control.

LONG-TERM SHAPES-PC MODEL

Energy Forecast

In the SHAPES-PC model the projections of the various economic and demographic parameters are combined with consumption estimates and patterns of electricity usage to produce projections of annual energy consumption. The basic concept underlying the model's structure involves breaking out numerous end-use categories for electricity consumption in order to establish homogeneous groups to forecast. SHAPES-PC is partitioned into three consumer categories: residential, commercial and industrial. SHAPES-PC has the capability to forecast hourly demand values for "typical" days in the year and then compute annual projections of MWh by summing the appropriate demand values.

Residential Sector

The electricity consuming units in the residential sector are major household appliances. A total of seventeen major household appliances are explicitly treated in the model. The first step in estimating demand is to predict the number of units of each appliance type in the service area in a given year. The appliance stock is estimated as the saturation rate for a given appliance multiplied by the total number of residential customers. Appliance saturation rates are projected using an S-shaped logistic saturation function based on historical data from appliance saturation surveys and service area real personal income. The second major factor in the demand estimation equation is the connected load of the appliance. The term connected load is defined here as the power requirements or wattage of the appliance. This will tend to change over time as relative energy prices, appliance efficiencies, appliance features and technologies change.

The last factor in the demand equation is the probability of the appliance operating at a given time. This term is called the use factor. It is necessary to distinguish between temperature, or weather sensitive use factors, and temperature insensitive use factors. The temperature insensitive use factors depend only on time, i.e., time of day, type of day and season. The type of day is important since weekday energy usage for many appliances differs from that of weekend and holiday usage. Similarly, there are seasonal variations in the use of many temperature insensitive appliances such as lighting. For other appliances, such as air conditioners, electric space heaters, and heat pumps, use factors depend not only on time of day, but also on temperature. These use factors indicate the probability of a space conditioning device operating at a given time of day, day type and temperature. Combining the heating and cooling use factors with the expected occurrence of temperature conditions in a given period yields the energy requirements for that period. By specifying a temperature profile for a given day, the model is capable of simulating the weather sensitive load corresponding to that temperature profile.

Industrial Sector

The industrial sector model is designed to forecast energy consumption levels associated with selected manufacturing industries. Electric energy consumption in the industrial sector is significantly tied to the level of economic activity. The major driving forces affecting energy consumption are the real price of electricity, the level of economic activity in the service area, and the technologies, or processes, of the industries involved. Since energy requirements for a given measure of economic activity vary from one industry to another, it is necessary to assess the mix of the industrial sector. To capture the effect of industrial mix, the industrial sector is disaggregated into twelve categories. Thus, by projecting energy usage independently for each 2-digit Standard

Industrial Code (SIC) category, the model captures changes in energy consumption due to changes in the industrial base.

There are numerous ways of measuring economic activity in the industrial sector. Due to the ready availability of historic employment data on a 2-digit SIC level, employment was used as this measure of activity. The level of annual energy consumption in any one of the twelve industries is calculated by multiplying the projected level of economic activity (expressed in employment) by the projected energy intensity (expressed as KWh usage per employee) of that sector. The calculation of energy intensity for each sector also incorporates the industrial production index for the sector to "normalize" the level of electric energy used per unit of output.

Commercial Sector

In the commercial sector, forecasts of annual energy consumption are derived for those customers falling into private, non-manufacturing business-types. Historic commercial energy sales are categorized into ten separate "building types" (e.g., retail, office, grocery, etc.) which are modeled individually. Commercial electricity consumption is determined by multiplying the floor space in each of these ten building categories by the energy intensity per square foot by category. This is done for three distinct end-uses: base (non-weather sensitive), heating and cooling. Floor space projections are developed based on a combination of historic and projected floor space per employee and employment projections by building type. Energy intensity per square foot is projected by building type using time trends with considerations for the three end-uses (i.e., weather sensitivity and base use). The model also factors in the influence of electric price on energy usage decisions. Projections of KWh usage per square foot along with projected square footage for each building type yield commercial sector energy sales.

Customer Forecast

An increasing service area population translates directly into a greater number of homes requiring electricity and, consequently, into a greater number of commercial establishments to service these residences. Service area population serves as the driver for residential and (implicitly) commercial customers, which comprise 98.4 percent of FPC total customers. The Bureau of Economic and Business Research at the University of Florida provides population estimates and projections for the FPC service area that are used in the development of the residential customer forecast. In order to determine future residential customer growth, historic growth in residential customers is regressed against historic growth in service area population. The resulting statistical coefficients are then applied to the population growth forecast. Future commercial and street lighting customers are modeled as a function of total residential customers. Industrial and public authority sector customers are forecast via a time-trend approach given their relatively stable nature.

In the short-term, deviations from trend in the most recent time periods are scrutinized. This analysis, along with any specific input from regional field personnel regarding growth expectations, forms the basis for developing a short-term outlook that is consistent with recent history as well as the long-term projections for all customer classes.

Peak Demand Forecast

The forecast of peak demand also employs a dual methodology framework. The SHAPES-PC end-use model is used to develop class-of-business load shapes and an econometric approach is used to project specific disaggregated pieces of the demand forecast. Both techniques provide a unique perspective as to the make-up of total system demand.

The SHAPES-PC end-use model uses FPC load research sampled class of business load shapes to develop a weather normalized 8,760 hour (yearly) load shape for the residential, commercial, industrial, and "all other" classes to calibrate historic benchmarks. Projections in MW demand and energy are then based upon growth in residential customers, manufacturing employees, commercial floor space, increased saturation of class end-uses or energy intensity, and price elasticity.

The econometric approach to projecting seasonal peak demand employs a disaggregation technique that separates winter and summer peak hour system demand into five major components. These components consist of potential firm retail load, demand-side management program capability, wholesale demand, company use demand and interruptible demand.

Potential firm retail load refers to projections of FPC retail hourly seasonal peak demand (excluding interruptible/curtailable/standby services) before the cumulative effects of any conservation activity or the activation of FPC's Load Management (LM) program. The historical values of this series are constructed to show the size of FPC's retail peak demand had no utility-induced conservation or load control ever taken place. The value of constructing such a "clean" series enables the forecaster to observe and correlate the underlying trend in retail peak demand in the service area to total system customer levels and coincident weather conditions without the impacts of year-to-year variation in load control amounts.

Demand-Side Management and direct load control estimates from goals set by the Florida Public Service Commission are incorporated into the MW forecast. Projections of dispatchable and cumulative non-dispatchable DSM are subtracted from the projection of potential firm retail demand.

Sales For Resale demand projections represent load supplied by FPC to other electric utilities such as Seminole Electric Cooperative, Incorporated, the Florida Municipal Power Agency, and other electric distribution companies. The SECI supplemental demand projection is based on their forecast of their service area within the FPC control area. The level of MW to be served by FPC is dependent upon the amount of resources SECI supplies to itself or contracts with others. An assumption has been made that beyond 2003 - the last year of committed capacity declaration - SECI will hold constant their level of self-serve resources. Demand projections for the partial requirements customers are based on historical ratios of coincident-to-contract levels of demand and applied to future MW contract levels. Demand requirements continue out at the level dictated by the final year in their respective contracts. The full requirement municipal demand forecast is estimated for individual cities using linear econometric equations modeling both weather and economic impacts specific to each locale. The seasonal (winter and summer) projections become the January and August peak values, respectively. The non-seasonal peak months are calculated using monthly allocation factors derived from applying the historical relationship between each winter month (November to March) relative to the winter peak, and each summer month (April to October) relative to the summer peak demand.

FPC "company use" at the time of system peak is estimated using load research metering studies and is assumed to remain stable over the forecast horizon. The interruptible load component is developed from historic trends, as well as the incorporation of specific information obtained from FPC's industrial service representatives.

Each of the peak demand components described above is a positive value except for the DSM program MW impacts. Since DSM program impacts represent a reduction in peak demand, they are assigned a negative value. Total system peak demand is then calculated as the arithmetic sum of these five components.

Both the end-use methodology and the disaggregated econometric methodology supply necessary information that go into the final projection of system peak demand.

HIGH AND LOW FORECAST SCENARIOS

The high and low bandwidth scenarios around the base MWh energy sales forecast are developed using a Monte Carlo simulation applied to a multivariate regression model that closely replicates the base retail MWh energy forecast in aggregate. This model accounts for variation in Gross Domestic Product, retail customers and electric price. The base forecasts for these variables were developed based on input from Data Resources Inc. and internal company price projections. Variation around the base forecast predictor variables used in the Monte Carlo simulation was based on an 80 percent confidence interval calculated around variation in each variable's historic growth rate. While the total number of degree days (weather) were also incorporated into the model specification, the high and low scenarios do not attempt to capture extreme weather conditions. Normal weather conditions were assumed in all three scenarios.

The Monte Carlo simulation was produced through the estimation of 1,000 scenarios for each year of the forecast horizon. These simulations allowed for random normal variation in the growth trajectories of the economic input variables (while accounting for cross-correlation amongst these variables), as well as simultaneous variation in the equation (model error) and coefficient estimates. These scenarios were then sorted and rank ordered from one to a thousand, while the simulated scenario with no variation was adjusted to equal the base forecast.

The low retail scenario was chosen from among the ranked scenarios resulting in a bandwidth forecast reflecting an approximate probability of occurrence of .10. The high retail scenario similarly represents a bandwidth forecast with an approximate probability of occurrence of .90. In both scenarios the high and low peak demand bandwidth forecasts are projected from the energy forecasts using the load factor implicit in the base forecast scenario.

CONSERVATION

In June 1994, FPC participated in FPSC hearings in Docket No. 930549-EG. A final order, PSC-94-1313-FOF-EG, was issued on October 25, 1994. Pursuant to this order, the FPSC approved the DSM goals for FPC, and required that FPC submit for approval a DSM plan designed to meet the goals. The following tables are the approved DSM goals as well as the achieved results through 1997.

Residential Conservation Goals

Year	Cumulative Summer MW Goal	Total Summer MW Achieved	Cumulative Winter MW Goal	Total Winter MW Achieved	Cumulative GWh Goal	Total GWh Achieved
1994	11	24	43	46	12	15
1995	30	43	86	85	24	29
1996	50	70	133	137	38	45
1997	71	100	184	196	60	66
1998	93		236		78	
1999	116		290		100	
2000	140		343		127	
2001	164		395		145	
2002	188		445		169	
2003	209		483		184	

Commercial/Industrial Conservation Goals

Year	Cumulative Summer MW Goal	Total Summer MW Achieved	Cumulative Winter MW Goal	Total Winter MW Achieved	Cumulative GWh Goal	Total GWh Achieved
1994	0.3	10	0.05	10	2	32
1995	3	33	3	32	19	81
1996	8	48	7	46	40	137
1997	15	55	13	52	71	147
1998	24		20		110	
1999	35		29		155	
2000	48		39		207	
2001	61		48		255	
2002	74		56		299	
2003	84		64		336	

FPC's DSM plan was submitted to the FPSC on February 22, 1995, and approved on November 1, 1995. This plan was designed to efficiently acquire all cost-effective DSM resources necessary to meet the Commission-established goals. The DSM plan consists of four residential programs, nine commercial and industrial programs, and one research and development program. These programs were designed using the end-use measures identified during FPC's Integrated Resource Planning process. Following is a brief description of these programs.

Residential Programs

Home Energy Check Program

This energy audit program provides customers with an analysis of their current energy use and recommendations on how they can save on their electricity bill through low-cost or no-cost energy-saving practices and measures. The program provides customers with three types of energy audits: Level 1 - customer-completed mail-in audit; Level 2 - free walk-through audit; and Level 3 - paid walk-through audit. The Home Energy Check Program serves as the foundation of the Home Energy Improvement Program in that the audit is a prerequisite for participation in the retrofit of water heaters, heating and air conditioning units.

Home Energy Improvement Program

This is the umbrella program to improve energy efficiency for existing homes. It combines efficiency improvements to the thermal envelope with upgraded home energy equipment and appliances. The program provides incentives for ceiling insulation upgrades, reduced duct leakage, high efficiency electric heat pumps, heat recovery units, and dedicated heat pump water heaters.

Residential New Construction Program

This program promotes energy efficient new home construction in order to provide customers with more efficient cooling and heating consumption combined with improved environmental comfort. The program provides education and information to the design and building community on energy efficient building design and construction. The program promotes the sealing of air conditioning duct systems using mastic for lasting results. The program provides incentives to the builder for high efficiency electric heat pumps, heat recovery units and heat pump water heaters. The highest level of the program incorporates the Environmental Protection Agency's Energy Star Homes Program and qualifies participants for cooperative advertising

Residential Energy Management Program

This is a voluntary customer program that allows FPC to reduce peak demand and thus defer generation construction. Peak demand is reduced by interrupting service to selected electrical equipment with radio controlled switches installed on the customer's premises. These interruptions are at FPC's option, during specified time periods, and coincident with hours of peak demand. Participating customers receive a monthly credit on their electricity bill.

Commercial/Industrial (C/I) Programs

Business Energy Check Program

This energy audit program provides commercial and industrial customers with an assessment of the current energy usage at their facility, recommendations on how they can improve the environmental conditions of their facility while saving on their electricity bill, and information on low-cost energy efficiency measures. The Business Energy Check consists of two types of audits: Level 1 - free walk-through audit, and Level 2 - paid walk-through audit. In most cases, this program is a prerequisite for participation in the other C/I programs.

Better Business Program

This is the umbrella efficiency program for existing commercial and industrial customers. The program provides customers with information, education, and advice on energy-related issues and incentives on efficiency measures that are cost-effective to FPC and its customers. The Better Business Program promotes energy efficient lighting, heating, ventilation, air conditioning (HVAC), motors, and water heating equipment, as well as some building retrofit measures (in particular, roof insulation upgrade, duct leakage test and repair, and window film retrofit).

Commercial/Industrial New Construction Program

The primary goal of this program is to foster the design and construction of energy efficient buildings. The new construction program will: 1) provide education and information to the design community on all aspects of energy efficient building design; 2) require that the building design, at a minimum, surpass the state energy code; 3) provide financial incentives for specific energy efficient equipment; and 4) provide energy design awards to building design teams. Incentives will be provided for high efficiency HVAC equipment, motors, heat recovery units, and duct leakage testing and repair.

Energy Monitor Program

This program will assist customers in managing their energy use by providing services to improve the operation and maintenance (O&M) of building and process systems. FPC will provide four types of O&M services -- energy accounting, load monitoring, commissioning assistance, and energy project assistance -- each with its own fee schedule for services.

Innovation Incentive Program

This program promotes a reduction in demand and energy by subsidizing energy conservation projects for customers in FPC's service territory. The intent of the program is to encourage legitimate energy efficiency measures that reduce KW demand and/or KWh energy, but are not addressed by other programs. Energy efficiency opportunities are identified by FPC representatives during a Business Energy Check audit. If a candidate project meets program specifications, it will be eligible for an incentive payment, subject to FPC approval.

Commercial Energy Management Program (Rate Schedule GSLM-1)

This direct load control program reduces FPC's demand during peak or emergency conditions. The program is available to customers who have electric space cooling equipment suitable for interruptible operation, and are eligible for service under the Rate Schedule GS-1, GST-1, GSD-1, or GSDT-1. The program is also applicable to customers who have any of the following electrical equipment installed on permanent residential structures and utilized for domestic (household) purposes: 1) water heater(s), 2) central electric heating systems(s), 3) central electric cooling system(s), and/or 4) swimming pool pump(s). The customer will receive a monthly credit on their bill depending on the type of equipment in the program and the interruption schedule.

Standby Generation Program

This demand control program reduces FPC's demand based upon the indirect control of customer generation equipment. This is a voluntary program available to all commercial, industrial and agricultural customers who have on-site generation capability and are willing to reduce their FPC demand when FPC deems it necessary. The customers participating in the Standby Generation program receive a monthly credit on their electricity bill according to the demonstrated ability of the customer to reduce demand at FPC's request.

Interruptible Service Program

This direct load control program reduces FPC's demand at times of capacity shortage during peak or emergency conditions. The program is available to qualified non-residential customers who are willing to have their power interrupted. FPC will have remote control of the circuit breaker or disconnect switch supplying the customer's equipment. Customers participating in the Interruptible Service program receive a monthly interruptible demand credit based on their billing demand.

Curtailable Service

This direct load control program reduces FPC's demand at times of capacity shortage during peak or emergency conditions. The program is available to qualified non-residential customers who are willing to curtail their demand. Customers participating in the Curtailable Service program receive a monthly curtailable demand credit based on their curtailable demand amount.

Research and Development Program

Technology Development Program

The purpose of this program is to establish a system to "pursue research, development, and demonstration projects jointly with others as well as individual projects" (Rule 25-17.001, {5}(f), Florida Administrative Code). FPC will undertake certain development and demonstration projects that have promise to become cost-effective demand and energy efficiency programs. In most cases, each demand reduction and energy efficiency project that is proposed and investigated under this program requires field testing with actual customers.

Low Income Pilot

One of the first projects implemented under the Technology Development Program is a customized DSM pilot program targeted toward the low income market segment. The low income pilot was initiated in mid-1996 and involves working with the Florida Department of Community Affairs (DCA) and local weatherization providers to provide an integrated delivery of weatherization and Rate Impact Measure (RIM) cost-effective DSM services by the weatherization providers.

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CHAPTER 3

Forecast of FACILITIES REQUIREMENTS

CHAPTER 3 Forecast of FACILITIES REQUIREMENTS

FORECAST OF CAPACITY AND DEMAND OVERVIEW

FPC has a "Total Capacity Resource" of 9,003 MW, as shown in Table 3.1. This capacity resource includes utility (455 MW) and non-utility purchased power (831 MW), peaking facilities (2,820 MW), nuclear (755 MW), and fossil steam and combined cycle plants (4,142 MW). FPC recently acquired the Tiger Bay facility, which transferred approximately 225 MW from the QF capacity to FPC resources. FPC has long-term contracts for approximately 455 MW of firm purchased power with other utilities. The company has contracts for over 800 MW of capacity provided by Qualifying Facilities (QF), which represents a significant portion of the state-wide QF capacity available. Table 3.2 shows FPC's contracts for firm capacity provided by QFs. FPC has experienced an excellent level of participation in its Demand-Side Management Programs. Total DSM resources are shown in Table 3.3.

FPC's forecast of capacity and demand is based on serving expected growth in regulated retail load and commitments to existing wholesale customers. As deregulation occurs in the electric industry, customers with choice, such as the wholesale market, are switching to new generation suppliers. This creates an added dimension of uncertainty which a traditional utility is not accustomed to planning for. FPC realizes that the long-term obligation to serve the total wholesale market no longer exists. FPC's remaining wholesale market customers are expected to exercise their option of receiving power from alternative suppliers around the year 2002. To date, a significant amount of the wholesale load is being evaluated through competitive Requests For Proposals by wholesale customers in Florida. As a result, the company assumes that the wholesale business will be very competitive. FPC is not committing long-term generation resources to serve the wholesale market until a viable plan is in place. FPC believes that the long-term interests of both wholesale and retail customers are being served by this plan.

FPC's forecast of capacity and demand for the summer and winter peaks are shown on Schedules 7.1 and 7.2, respectively. Planned and prospective generating facility additions and changes are shown on Schedule 8 and are referred to as FPC's Base Expansion Plan.

FPC currently has under construction a combined cycle plant at the Hines Energy Complex (HEC) in Polk County. This unit, HEC #1, is scheduled for operation by November 1998. The HEC #1 unit will be a state-of-the-art, high efficiency combined cycle plant of approximately 470 MW fueled primarily by natural gas with distillate oil as the back-up fuel. The HEC #1 unit will be one of the most efficient combined cycle plants in the nation. A second and third unit at the Hines Energy Complex are planned with in-service dates of 2004 and 2006, respectively. A status report and specification for proposed generation and directly associated transmission lines are shown in Schedules 9 and 10, respectively.

Changes in FPC's existing resources include fossil steam gas conversions at Anclote, peaking gas conversions at Suwannee P3, and Crystal River capacity upgrades. Also included are plant retirements consistent with FPC's latest plant Depreciation and Dismantlement filing. Consideration for changes in retirement dates of these facilities will be included in future studies.

The Base Expansion Plan utilizes natural gas and high efficiency combined cycle generation to help meet the requirements of the 1990 Clean Air Act Amendments. Fuel switching, SO_2 emission allowance purchases, re-dispatching of generation, and technology changes are other options available to FPC to insure compliance with the 1990 Clean Air Act Amendments.

TABLE 3.1

FLORIDA POWER CORPORATION
TOTAL CAPACITY RESOURCE
Power Plants, Peaking Units And Purchased Power

Plants	Number Of Units	Net Dependable Capability KW Winter
Nuclear Steam Plant		
Crystal River	1	755,000*
Fossil Steam & Combined Cycle Plants		
Crystal River	4	2,276,000
Anclote	2	1,034,000
Paul L. Bartow	3	449,000
Suwannee River	3	147,000
Tiger Bay	1	236,000
Total Fossil	13	4,142,000
Total Steam (Nuclear & Fossil)	14	4,897,000
Peaking Units		
DeBary	10	786,000
Intercession City	11	912,000
Bayboro	4	232,000
Bartow	4	217,000
Suwannee	3	201,000
Turner	4	200,000
Higgins	4	148,000
Avon Park	2	64,000
University of Florida	1	42,000
Rio Pinar	1	18,000
Total Peaking	44	2,820,000
Total Units	58	
Total Net Generating Capability		**7,717,000**
* *Adjusted for sale of 9.6% of total capacity*		
Purchased Power		
Qualifying Facilities	15	831,000
Investor Owned Utilities	2	455,000
TOTAL CAPACITY RESOURCE		**9,003,000**

TABLE 3.2

FLORIDA POWER CORPORATION
QUALIFYING FACILITY GENERATION CONTRACTS
AS OF DECEMBER 31, 1997

FACILITY NAME	LOCATION (COUNTY)	TYPE	FUEL TYPE	CONTRACT START DATE (MO/YR)	FIRM CAPACITY - MW
BAY COUNTY RES. RECOV.	BAY	SPP	MSW	04/1988	11
CARGILL	POLK	COG	WH	10/1992	15
CFR-BIOGEN	POLK	COG	NG	06/1995	74
DADE COUNTY RES. RECOV.	DADE	SPP	MSW	11/1991	43
EL DORADO	POLK	COG	NG	07/1994	114
LAKE COGEN	LAKE	COG	NG	07/1993	110
LAKE COUNTY RES. RECOV.	LAKE	SPP	MSW	01/1995	13
LFC JEFFERSON	POLK	COG	NG	01/1995	8
LFC MADISON	POLK	COG	NG	01/1995	8
MULBERRY	POLK	COG	NG	07/1994	79
ORLANDO COGEN	ORANGE	COG	NG	10/1993	79
* PANDA KATHLEEN	POLK	COG	NG	11/2000	75
PASCO COGEN	PASCO	COG	NG	07/1993	109
PASCO COUNTY RES. RECOV.	PASCO	SPP	MSW	01/1995	23
PINELLAS COUNTY RES. RECOV. 1	PINELLAS	SPP	MSW	01/1995	40
PINELLAS COUNTY RES. RECOV. 2	PINELLAS	SPP	MSW	01/1995	15
PINELLAS COUNTY RES. RECOV. 3	PINELLAS	SPP	MSW	01/2008	40
RIDGE GENERATING STATION	POLK	SPP	BIO	05/1994	40
ROYSTER	POLK	COG	NG	07/1994	31
TIMBER ENERGY 1	LIBERTY	SPP	BIO	04/1992	13
US AGRICHEM	POLK	COG	WH	01/1997	6

* DISPUTES EXIST WITH PANDA KATHLEEN WHICH MAKE THE TIMING OF THIS PROJECT UNCERTAIN

TABLE 3.3

FLORIDA POWER CORPORATION
TOTAL DEMAND-SIDE MANAGEMENT RESOURCES

SUMMER

YEAR	NON-DISPATCHABLE DSM & SELF-SERVICE COGEN (MW)	INTERRUPTIBLE LOAD (MW)	LOAD MGT., HEATWORKS, & STANDBY GENERATION (MW)	VOLTAGE REDUCTION (MW)	TOTAL (MW)
1998	306	272	586	97	1,261
1999	325	331	606	102	1,364
2000	344	345	625	101	1,415
2001	362	350	644	104	1,460
2002	379	295	662	100	1,436
2003	394	278	677	94	1,443
2004	394	271	677	97	1,439
2005	394	265	677	99	1,435
2006	394	258	677	102	1,431
2007	394	256	677	105	1,432

WINTER

YEAR	NON-DISPATCHABLE DSM & SELF-SERVICE COGEN (MW)	INTERRUPTIBLE LOAD (MW)	LOAD MGT., HEATWORKS, & STANDBY GENERATION (MW)	VOLTAGE REDUCTION (MW)	TOTAL (MW)
1998/99	350	318	1,063	112	1,843
1999/00	373	340	1,099	114	1,926
2000/01	395	348	1,133	118	1,994
2001/02	415	312	1,167	114	2,008
2002/03	435	282	1,198	108	2,023
2003/04	435	275	1,198	111	2,019
2004/05	435	268	1,198	114	2,015
2005/06	435	262	1,198	117	2,012
2006/07	435	255	1,198	120	2,008
2007/08	435	257	1,198	124	2,014

FLORIDA POWER CORPORATION

SCHEDULE 7.1

FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE

AT TIME OF SUMMER PEAK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL INSTALLED CAPACITY	FIRM CAPACITY IMPORT	FIRM CAPACITY EXPORT		TOTAL CAPACITY AVAILABLE	SYSTEM FIRM SUMMER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	QF MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
1998	6,973	455	362	831	8,259	7,000	1,259	18%	0	1,259	18%
1999	7,459	465	225	831	8,755	7,317	1,438	20%	0	438	20%
2000	7,357	465	0	831	8,653	7,205	1,448	20%	0	1,448	20%
2001	7,357	465	0	906	8,728	7,423	1,305	18%	0	1,305	18%
2002	7,357	465	0	906	8,728	7,157	1,571	22%	0	1,571	22%
2003	7,357	465	0	906	8,728	6,733	1,995	30%	0	1,995	30%
2004	7,214	465	0	906	8,585	6,948	1,637	24%	0	1,637	24%
2005	7,596	475	0	906	8,977	7,164	1,813	25%	0	1,813	25%
2006	7,596	475	0	906	8,977	7,381	1,596	22%	0	1,596	22%
2007	8,066	475	0	906	9,447	7,597	1,850	24%	0	1,850	24%

FLORIDA POWER CORPORATION

SCHEDULE 7.2

FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE

AT TIME OF WINTER PEAK

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	TOTAL INSTALLED CAPACITY	FIRM CAPACITY IMPORT	FIRM CAPACITY EXPORT	QF	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM WINTER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
1998/99	8,234	465	0	831	9,530	8,066	1,464	18%	0	1,464	18%
1999/00	8,261	465	0	831	9,557	8,201	1,356	17%	0	1,356	17%
2000/01	8,146	465	0	906	9,517	8,452	1,065	13%	0	1,065	13%
2001/02	8,146	465	0	906	9,517	8,194	1,323	16%	0	1,323	16%
2002/03	8,146	465	0	906	9,517	7,776	1,741	22%	0	1,741	22%
2003/04	7,980	465	0	906	9,351	8,017	1,334	17%	0	1,334	17%
2004/05	8,385	475	0	906	9,766	8,258	1,508	18%	0	1,508	18%
2005/06	8,385	475	0	906	9,766	8,498	1,268	15%	0	1,268	15%
2006/07	8,890	475	0	906	10,271	8,741	1,530	18%	0	1,530	18%
2007/08	8,890	475	0	906	10,271	8,983	1,288	14%	0	1,288	14%

FLORIDA POWER CORPORATION

SCHEDULE 6

PLANNED AND PROSPECTIVE GENERATING FACILITY

ADDITIONS AND CHAN ES

(JANUARY 1, 1998 THROUGH DECEMBER 31, 2007)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
												NET CAPABILITY			
				FUEL		FUEL TRANSPORT		CONST.	COMMERCIAL	EXPECTED	GEN MAX				
	UNIT		UNIT					START	IN-SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER		
PLANT NAME	NO	LOCATION	TYPE	PRIMARY	ALT.	PRIMARY	ALT	MONTH/YEAR	MONTH/YEAR	MONTH/YEAR	KW	MW	MW	STATUS	NOTES
CRYSTAL RIVER	3	CITRUS CO	NP	UR		TK			02/1998			11	12	CA	2
SUWANNEE RIVER	P3	SUWANNEE CO	GT	FO2	NG	TK	PL		06/1998		61,200	54	67	FC	1
ANCLOTE	2	PASCO CO	ST	FO6	NG	PL	PL		11/1998		556,200	505	517	FC	1
HINES ENERGY COMPLEX	1	POLK CO	CC	NG	FO2	PL	TK	08/1995	11/1998			470	505	V	
ANCLOTE	1	PASCO CO	ST	FO6	NG	PL	PL		05/1999		556,200	503	517	FC	1
CRYSTAL RIVER	5	CITRUS CO	ST	BIT		WA,RR			05/1999			16	16	CA	2
CRYSTAL RIVER	1	CITRUS CO	ST	BIT		WA,RR			12/1999			12	12	CA	2
SUWANNEE RIVER	1-3	SUWANNEE CO	ST	FO6	NG	TK	PL			04/2000	147,000	(145)	(147)	RE	3
CRYSTAL RIVER	4	CITRUS CO	ST	BIT		WA,RR			04/2000			16	16	CA	2
CRYSTAL RIVER	2	CITRUS CO	ST	BIT		WA,RR			05/2000			16	16	CA	2
HIGGINS	P1-4	PINELLAS CO	GT	FO2	NG	TK	PL			12/2003	153,430	(128)	(148)	RE	3
RIO PINAR	P1	ORANGE CO	GT	FO2		TK				12/2003	19,290	(17)	(18)	RE	3
HINES ENERGY COMPLEX	2	POLK CO	CC	NG	FO2	PL	TK	08/2001	11/2004			470	505	P	
AVON PARK	P1	HIGHLANDS CO	GT	FO2	NG	TK	PL			12/2004	33,790	(29)	(32)	RE	3
AVON PARK	P2	HIGHLANDS CO	GT	FO2		TK				12/2004	[illegible] 790	(29)	(32)	RE	3
TURNER	P1-2	VOLUSIA CO	GT	FO2		TK,WA				12/2004	38,580	(30)	(36)	RE	3
HINES ENERGY COMPLEX	3	POLK CO	CC	NG	FO2	PL	TK	08/2003	11/2006			470	505	P	

NOTES

1 / FUEL CONVERSION TO NATURAL GAS

2 / CAPABILITY INCREASE

3 / RETIREMENT CAPACITIES ARE IN PARENTHESES. CONSIDERATION FOR POTENTIAL LIFE EXTENSIONS OF THESE FACILITIES WILL BE INCLUDED IN FUTURE STUDIES.

FLORIDA POWER CORPORATION

SCHEDULE 9

STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

(1)	PLANT NAME AND UNIT NUMBER:	HINES ENERGY COMPLEX UNIT #1
(2)	CAPACITY	
	a. SUMMER:	470 MW
	b. WINTER:	505 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	8/95
	b. COMMERCIAL IN-SERVICE DATE:	11/98 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION
(7)	COOLING METHOD:	COOLING PONDS
(8)	TOTAL SITE AREA:	8,200 ACRES
(9)	CONSTRUCTION STATUS:	UNDER CONSTRUCTION
(10)	CERTIFICATION STATUS:	FILED 8/92, RECEIVED 2/94 (DEP/EPA)
(11)	STATUS WITH FEDERAL AGENCIES:	AIR PERMIT APPROVAL OBTAINED 2/94 (DEP)
(12)	PROJECTED UNIT PERFORMANCE DATA	
	PLANNED OUTAGE FACTOR (POF):	5.00 %
	FORCED OUTAGE FACTOR (FOF):	3.50 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	80.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	6,962 BTU/KWH

FLORIDA POWER CORPORATION

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

(1)	PLANT NAME AND UNIT NUMBER:	HINES ENERGY COMPLEX UNIT #2
(2)	CAPACITY	
	a. SUMMER:	470 MW
	b. WINTER:	505 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	11/01
	b. COMMERCIAL IN-SERVICE DATE:	11/04 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NO_x COMBUSTION
(7)	COOLING METHOD:	COOLING PONDS
(8)	TOTAL SITE AREA:	8,200 ACRES
(9)	CONSTRUCTION STATUS:	PLANNED
(10)	CERTIFICATION STATUS:	SITE PERMITTED
(11)	STATUS WITH FEDERAL AGENCIES:	SITE PERMITTED
(12)	PROJECTED UNIT PERFORMANCE DATA	
	PLANNED OUTAGE FACTOR (POF):	5.00 %
	FORCED OUTAGE FACTOR (FOF):	3.50 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	80.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	6,962 BTU/KWH

SCHEDULE 9

STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

(1)	PLANT NAME AND UNIT NUMBER:	HINES ENERGY COMPLEX UNIT #3
(2)	CAPACITY	
	a. SUMMER:	470 MW
	b. WINTER:	505 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	11/03
	b. COMMERCIAL IN-SERVICE DATE:	11/06 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION
(7)	COOLING METHOD:	COOLING PONDS
(8)	TOTAL SITE AREA:	8,200 ACRES
(9)	CONSTRUCTION STATUS:	PLANNED
(10)	CERTIFICATION STATUS:	SITE PERMITTED
(11)	STATUS WITH FEDERAL AGENCIES:	SITE PERMITTED
(12)	PROJECTED UNIT PERFORMANCE DATA	
	PLANNED OUTAGE FACTOR (POF):	5.00 %
	FORCED OUTAGE FACTOR (FOF):	3.50 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	80.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	6,962 BTU/KWH

FLORIDA POWER CORPORATION

SCHEDULE 10

STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

HINES ENERGY COMPLEX SITE

(1)	POINT OF ORIGIN AND TERMINATION:	FT. MEADE SUBSTATION - HINES ENERGY COMPLEX
(2)	NUMBER OF LINES:	2
(3)	RIGHT-OF-WAY:	EXISTING TRANSMISSION LINE AND HINES ENERGY COMPLEX SITE
(4)	LINE LENGTH:	6 MILES
(5)	VOLTAGE:	230 KV
(6)	ANTICIPATED CONSTRUCTION TIMING:	EARLY 1998 IN-SERVICE, START CONSTRUCTION EARLY 1997
(7)	ANTICIPATED CAPITAL INVESTMENT:	$ 5,300,000
(8)	SUBSTATIONS:	N/A
(9)	PARTICIPATION WITH OTHER UTILITIES:	N/A

FLORIDA POWER CORPORATION

SCHEDULE 10

STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

HINES ENERGY COMPLEX SITE

(1)	POINT OF ORIGIN AND TERMINATION:	BARCOLA SUBSTATION - HINES ENERGY COMPLEX
(2)	NUMBER OF LINES:	1 (DOUBLE CIRCUIT CONSTRUCTION)
(3)	RIGHT-OF-WAY:	EXISTING TRANSMISSION LINE AND HINES ENERGY COMPLEX SITE
(4)	LINE LENGTH:	3 MILES
(5)	VOLTAGE:	230 KV
(6)	ANTICIPATED CONSTRUCTION TIMING:	LATE 2003 IN-SERVICE, START CONSTRUCTION LATE 2002
(7)	ANTICIPATED CAPITAL INVESTMENT:	$ 1,800,000
(8)	SUBSTATIONS:	N/A
(9)	PARTICIPATION WITH OTHER UTILITIES:	N/A

OTHER PLANNING ASSUMPTIONS AND INFORMATION

INTEGRATED RESOURCE PLANNING OVERVIEW

FPC employs an Integrated Resource Planning (IRP) process to determine the most cost-effective mix of generation and Demand-Side Management programs that will reliably satisfy our customer's future energy needs as required by the Energy Policy Act of 1992 (EPACT).

FPC's IRP process incorporates state-of-the-art computer hardware and models to evaluate future generation alternatives and cost-effective conservation and dispatchable demand-side management programs on a consistent and integrated basis. Integrated resource planning involves a wide diversity of departments and company resources. A full range of generation and demand side alternatives are considered for incorporation into the company's resource mix. The IRP process is carried out in full or in part every few years. This allows the company the flexibility to re-evaluate resources that are in the current plan prior to their construction or implementation, and to evaluate the addition of new resources not previously examined.

An overview of FPC's IRP process is shown in Figure 1. The process begins with the development of various forecasts, including demand and energy, fuel prices, and economic assumptions. Future supply- and demand-side resource alternatives are identified and extensive cost and operating data is collected to enable these to be modeled in detail. These alternatives are optimized together to determine the most cost-effective plan for FPC to pursue over the next ten years that meets the company's reliability criteria. This is called the Integrated Optimal Plan. This plan is then evaluated within the company's financial model to determine its effect on the overall financial health of the corporation. The current 1998 Ten-Year Site Plan involves a modified IRP process that incorporates the DSM Goals established in the 1994 Conservation Goals Hearings prior to supply-side evaluations. This process is discussed further in the section titled 1998 Ten-Year Site Plan Modified IRP Process.

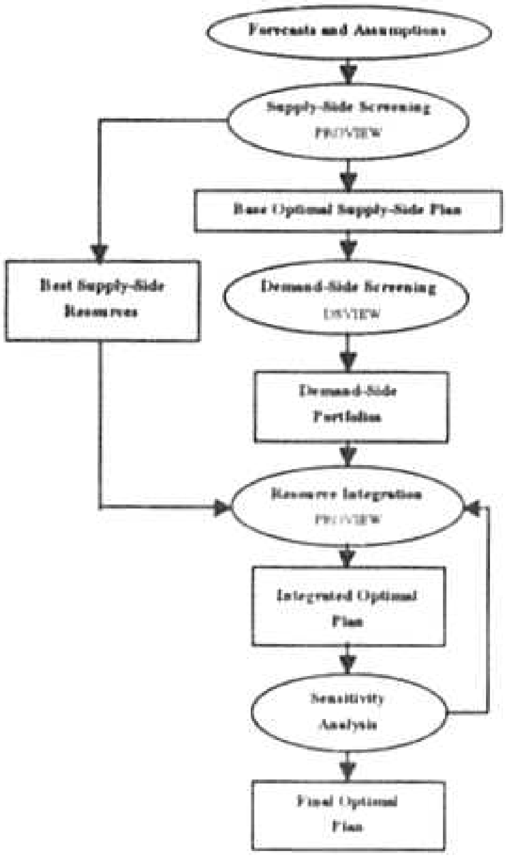


Figure 1

THE IRP PROCESS

Forecasts and Assumptions:

The evaluation of possible supply-side and demand-side alternatives, and development of the optimal plan, is the longest and most demanding part of the IRP process. These steps together comprise the integration process and begin with the development of forecasts and collection of input data. Base forecasts that reflect FPC's view of the most likely future scenarios are developed, along with high and low forecasts that reflect alternative future scenarios. Computer models used in the process are brought up-to-date to reflect this data, along with the latest operating parameters and maintenance schedules for FPC's existing generating units. This establishes a consistent starting point for all further analysis.

FPC plans its resources to meet dual reliability criteria of 15 percent reserve margin over forecasted firm peak demand and 0.1 days per year Loss of Load Probability (LOLP). The reserve margin criterion is deterministic and provides a measure of FPC's ability to meet its forecasted seasonal peak load. The LOLP is a probabilistic criterion, which is a measure of FPC's ability to meet its load throughout the year taking into consideration unit failures, unit maintenance, and assistance from other utilities. Short-term fluctuations in reliability criteria, which typically do not require long-term generation resources, will be addressed in the years prior to the need

Supply-Side Screening:

Potential supply-side resources are screened to determine those that are the most cost-effective. Data used for the screening analysis is compiled from various industry sources and FPC's experiences. Resource options are "pre-screened" to set aside those that do not warrant a detailed cost-effectiveness analysis. Typical screening criteria are costs, fuel source, technology maturity, environmental parameters, and overall resource feasibility. Generating units' performance was typically modeled based on three-year averages for availability and periodic performance testing for heat rates.

Economic evaluation of generation alternatives is performed using the PROVIEW optimization program. The optimization program evaluates revenue requirements for specific resource plans generated from combinations of future resource additions that meet system reliability criteria and other system constraints. All resource plans are then ranked by system revenue requirements. Multiple optimization runs may be required to screen a large selection of future resource additions. The screening process proceeds until all of the alternatives that are left can be evaluated in a single optimization run. The final optimization run then produces an optimal supply-side resource plan, which is called the "Base Optimal Supply-Side Plan."

Demand-Side Screening:

Like supply-side resources, data about large numbers of potential demand-side resources is collected. These resources are "pre-screened" to eliminate those alternatives that are still in research and development, addressed by other regulation (building code), or not applicable to

FPC's customers. The demand-side screening model, DSVIEW, is updated with cost data and load impact parameters for each potential DSM measure to be evaluated.

The base optimal supply-side plan is used as the basis for screening future demand-side resources. The future supply-side alternatives that are selected for the base optimal supply-side plan are the stream of avoidable units that future demand-side programs are screened against. Each future demand-side alternative is individually added to the base optimal supply-side plan and the amount of generation in the plan is reduced to equalize the reliability between the cases. The system is then re-dispatched over the ten year planning period. Comparison of this case, with the demand-side program included, to the base optimal supply-side plan is used to determine the benefit or detriment that the addition of this demand-side resource provides to the overall system. DSVIEW calculates the benefits and costs for each demand-side measure evaluated and reports the appropriate ratios for the Rate Impact Measure (RIM), the Total Resource Cost Test (TRC), and the Participant Test.

Demand-side programs that pass the RIM test are then bundled together into portfolios. Portfolios of DSM programs are considered together, rather than individually, in the integration process that follows. This is necessary to reduce the number of possible future scenarios and make the optimization solvable with the computing resources available.

DURABILITY OF DSM PROGRAMS

The durability of energy savings for DSM programs is verified through ongoing conservation evaluations. Program monitoring and evaluation are important components of DSM implementation. They serve the purpose of ensuring that all DSM resources are acquired in a cost-effective manner and that the program savings are durable. Program evaluations can be conducted through a variety of methods including statistical billing analysis, engineering simulations and combined approaches that incorporate site data with statistical and engineering approaches. FPC will determine specific evaluation methodologies on a program-by-program basis using the most cost-effective method based on factors such as participation levels, expected per unit impacts, program performance, dollars invested, and the level of uncertainty of measure performance. It is FPC's intention to continue these evaluations over an extended time period allowing the durability of savings to be assessed.

RESOURCE INTEGRATION AND FINAL OPTIMAL PLAN

The cost-effective generation alternatives as determined by the supply-side screening and the demand-side portfolios developed in the demand-side screening process are optimized together to formulate an integrated optimal plan. The optimization program considers all possible future mixes of supply-side and demand-side alternatives that meet the company's reliability criteria in each year over a ten-year period. The economic operation of each future scenario is additionally evaluated over forty years. The program will again consider many tens or hundreds of thousands of combinations, and report those that provide the lowest rates to FPC's ratepayers.

The plan that provides the lowest rates is further tested using sensitivity analysis. The economics of the plan are evaluated under high and low forecast scenarios to ensure that the plan does not unduly burden the company or the ratepayers if the future unfolds in a way very different from the base forecast. If the plan is judged robust under sensitivity analysis, it becomes the final optimal plan.

The final optimal plan passes from the optimization process to the company financial model. It is evaluated to ensure that the company can finance it adequately and that it will not have a detrimental impact on the company's stock or bond rating. A plan that has a detrimental impact on the company's financial health will be returned to the integration process. At this point, it may be necessary to re-assess part of the screening process, or it may only be necessary to repeat the integration and sensitivity analyses with appropriate constraints included.

1998 TEN-YEAR SITE PLAN MODIFIED IRP PROCESS

FPC's 1998 Ten-Year Site Plan Demand-Side Management projections are consistent with the DSM Goals established in the 1994 FPSC Conservation Goals Hearing. FPC's DSM goals projections were integrated as a group prior to determining the supply-side expansion plan. The DSM Goals and the supply-side plan were then combined to form the optimal plan. The 1998 IRP process was modified slightly by projecting the DSM expansion plan prior to supply-side evaluations to ensure consistency with FPC's DSM goals. This process will be reviewed periodically to balance the impacts of the DSM goals on the IRP process and future resources.

FUEL FORECAST

The base case fuel price forecast was developed from the expected or most likely course of events. General market conditions for all fuels are expected to be relatively stable when viewed from an average annual cost basis. Coal prices are also expected to be relatively stable month to month; however, oil and natural gas prices are expected to be highly volatile on a day to day and month to month basis.

The base cost for coal is based on thr existing contractual structure between Electric Fuels Corporation (EFC) and FPC and both contract and spot market coal and transportation arrangements between EFC and its various suppliers. Oil and natural gas prices are estimated based on current and expected contracts and spot purchase arrangements. Oil and natural gas commodity prices are driven primarily by open market forces of supply and demand. Natural gas firm transportation cost is determined primarily by Tariff and rates tend to change less frequently than commodity prices.

The high case fuel forecast is based on the premise that fuel prices are high in a relatively high inflation economic environment on a worldwide basis. The forecast is based on an approximate probability of 25 percent (vs. 50 percent for the base case). Coal prices in the high case were developed by EFC based on the above criteria. Their assessment of the effect the coal market and inflation have on contract supply, spot supply, quality differences and the various transportation cost drivers is reflected in the forecast. FPC developed the high case oil and natural gas forecast based on the same general market environment and inflation levels as those used for coal. Since oil and natural gas supply are primarily purchased at market prices, consideration for current contract escalation was not required. Any expected increase in transportation cost is also included in the overall projected price increases.

The low case fuel forecast is based on the premise that fuel prices are low in a low inflation economic environment on a worldwide basis. The forecast is based on an approximate probability of 25 percent (vs. 50 percent for the base case). Coal prices in the low case were developed by EFC based on the above criteria. Their assessment of the effect the coal market and inflation have on contract supply, spot supply, quality differences and the various transportation cost drivers is reflected in the forecast. FPC developed the low case oil and natural gas forecast based on the same general market environment and inflation levels as those used for coal. Since oil and natural gas supply are primarily purchased at market prices, no consideration is given for current contract escalation. Any expected change in transportation cost is also included in the overall projected price variations.

FINANCIAL FORECAST

Financial Assumptions

The Base Financial Case was a combination of FPC's current financial assumptions for incremental costs and standard accounting practices, and DRI/McGraw-Hill's *Review of the U. S. Economy*. The income tax, depreciation rates and capital structure were based on FPC's corporate financial assumptions. The inflation rate and debt interest rates were based on DRI/McGraw Hill's *Review of the U.S. Economy*, November 1997. In general, the economy has a balanced growth path and a stable inflation rate.

In the Optimistic Financial Case there is high growth and low stable inflation rate. DRI/McGraw Hill's *Review of the U.S. Economy* was used for forecasted interest rates and inflation rates. Due to low inflation, interest rates remain low, which enhances business development. FPC's composite cost of capital was adjusted to reflect the low inflation rates.

In the Pessimistic Financial Case there is low growth and high inflation. DRI/McGraw Hill's *Review of the U.S. Economy* was used for forecasted interest rates and inflation rates. Due to high inflation, interest rates remain high, which depresses consumer expenditures. FPC's composite cost of capital was adjusted to reflect the high inflation rates.

BASE EXPANSION PLAN

The base expansion plan consists mainly of three Hines Energy Complex (HEC) combined cycle units with planned in-service dates of 1998, 2004, and 2006. The HEC #2 and #3 units are state-of-the-art combined cycle units with similar characteristics as HEC #1. Accepting associated risks, the future advanced technology combined cycle unit provides a higher efficiency alternative plan that challenges the state-of-the-art combined cycle expansion plan. Given FPC's base expansion resource of combined cycle generation, the state-of-the-art and future advanced combined cycle technologies would be pursued simultaneously to ensure the lowest possible expansion costs.

FPC plans to provide a market-based analysis to insure that future expansion resources are procured in a just and reasonable manner. The procurement process for future resources would consider self-build alternatives as well as market based alternatives. Self-build alternatives would consider competitively bidding FPC's equipment, engineering and construction costs. Market alternatives would consider various types of market contracts as well as competitively bidding these resources. Each expansion resource must adapt well to FPC's other portfolio resources and bring a value added service beyond just price. FPC fully intends to offer valued products at reasonable costs to insure a stable, adequate generation supply for its native load.

BASE EXPANSION PLAN SENSITIVITIES

Sensitivities to Load, Fuel and Financial Forecasts were analyzed against the base plan. The base expansion plan of constructing combined cycles on gas was determined to be robust with respect to changes in the load, fuel and financial forecasts. The low load forecast sensitivity required one additional combustion turbine after HEC #1. The high-load forecast, which included continuing to serve wholesale customers with choice as well as increased retail demand, indicated that additional combined cycles and combustion turbine units would be required. The high load expansion plan is consistent with the base expansion plan technology, but in greater magnitude. Combustion turbines have shorter lead times than combined cycles and continue to provide flexibility in meeting demand changes. FPC's base combined cycle expansion plan could be modified with combustion turbines to meet uncertainty in the demand forecast.

The high and low fuel forecast sensitivities indicated that the base expansion plan was robust to sensitivities in those forecasts and would require no changes to the base expansion plan. The low fuel forecast indicated no changes to the base expansion plan. The high fuel forecast indicated an increase in savings for the future advanced technology combined cycle versus the state-of-the-art combined cycle presently being planned. In addition, a sensitivity to holding the differential price of oil to gas constant over time indicated lower benefits for high efficiency combined cycle units and a greater value for simple cycle combustion turbines. However, these fuel sensitivities were not significant enough to depart from the base expansion plan utilizing the state-of-the-art combined cycle technology.

The high and low financial forecast sensitivities indicated that the base plan was robust to sensitivities in those forecasts and would require no change to the base expansion plan. In general, all the high sensitivity cases indicated an increase in total revenue requirements while the low sensitivities indicated lower total revenue requirements.

TRANSMISSION PLANNING

Florida Power Corporation's Transmission Planning Criteria complies with the Florida Reliability Coordinating Council's (FRCC) "Principles and Guides for Planning Reliable Bulk Electric Systems." This criteria is currently filed with FERC as a part of the FERC 715 Filing made by the FRCC. This information is publicly available, including FRCC load flow databank models.

Presently, FPC uses the following reference documents to calculate Available Transfer Capability (ATC) for required transmission path postings on the Florida OASIS (Open Access Same Time Information System):

- FRCC: Test Period Methodology for ATC Calculation, July 1996
- NERC: Transmission Transfer Capability, May 1995
- NERC: Available Transfer Capability - Definitions and Determination, May 1996

Currently, FPC proposes no bulk transmission additions that must be certified under the Florida Transmission Line Siting Act (TLSA). FPC's proposed future bulk transmission line additions are shown below:

FLORIDA POWER CORPORATION
LIST OF PROPOSED BULK TRANSMISSION LINE ADDITIONS
1998-2007

LINE OWNERSHIP	TERMINALS	TERMINALS	LINE LENGTH CKT. MILES	COMMERCIAL IN-SERVICE DATE (MO/YR)	NOMINAL OPERATING VOLTAGE
FPC	FORT MEADE	HINES ENERGY COMPLEX	6	01/1998	230
FPC	DEARMIN	SILVER SPRINGS NORTH	6	07/1998	230
FPC	HAILE	HAILE MILL	2	02/1999	230
FPC	LAKE BRYAN	INTERCESSION CITY	10	12/2000	230
FPC	CENTRAL FLORIDA	SILVER SPRINGS	3	06/2002	230
FPC	TAYLOR CREEK	HOLOPAW	1	12/2002	230
FPC	LAKE BRYAN	WINDERMERE	10	12/2003	230
FPC	BARCOLA #2	HINES ENERGY COMPLEX	3	12/2003	230

CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

CHAPTER 4 ENVIRONMENTAL and LAND USE INFORMATION

PREFERRED SITES

FPC's base expansion plan, including the units currently under construction, proposes new generation at the Hines Energy Complex (HEC) in Polk County. The HEC site is currently under construction and has been certified through the rules of the Power Plant Siting Act. The first combined cycle unit is scheduled for commercial operation by November 1998. The preferred site of the HEC in Polk County meets all of FPC's siting requirements for capacity throughout the planning horizon. FPC's existing sites, as identified in Table 3.1 of Chapter 3, have been permitted and include the capability to further enhance their generation and still operate within their individual site permit limits. All appropriate permitting requirements have been obtained for FPC's preferred sites. Therefore, detail environmental or land use data is not included. The base expansion plan does not include any potential sites for new generating facilities.

HINES ENERGY COMPLEX IN POLK COUNTY

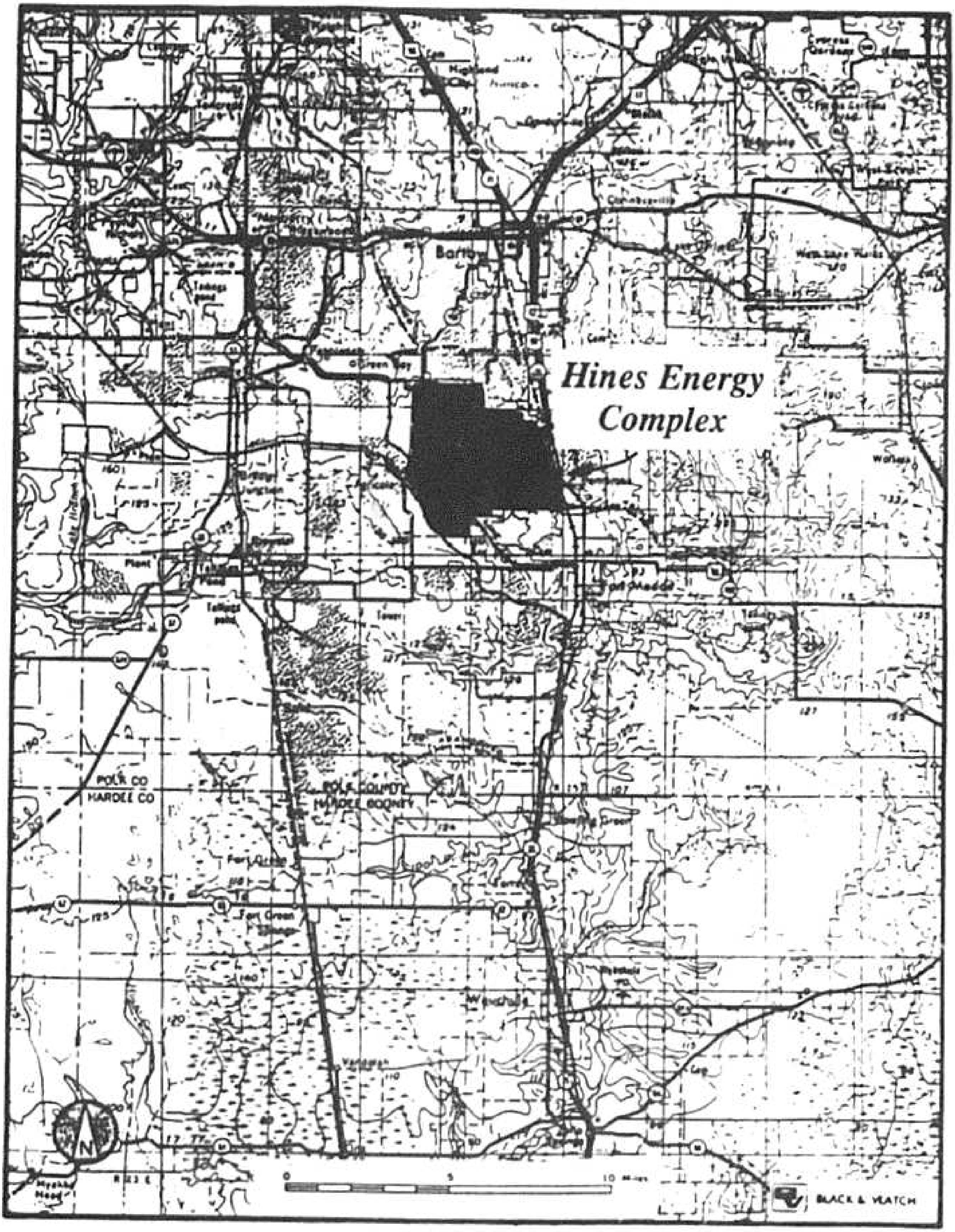
In 1990, FPC completed a state-wide search for a new 3,000 MW coal capable power plant site. As a result of this work, a large tract of mined out phosphate land in south-central Polk County was selected as the primary alternative. This 8,200 acre site is located near the cities of Fort Meade and Homeland, south of S. R. 640 and west of U.S. 17/98 (reference the Polk County Site map). It is an area that has been extensively mined and remains predominantly unreclaimed.

The governor and cabinet approved site certification for ultimate site development and construction of the first 470 MW increment on January 25, 1994, in accordance with the rules of the Power Plant Siting Act. Due to the thorough screening during the selection process, and the disturbed nature of the site, there were no major environmental limitations. As would be the situation at any location in the state, air emissions and water consumption were significant issues during the licensing process.

As future generation units are added, the remaining network of on-site clay settling ponds will be converted to cooling ponds and combustion waste storage areas to support power plant operations. Given the disturbed nature of the property, considerable development has been required in order to make it usable for electric utility application. An industrial rail network and an adequate road system service the site.

Construction of site improvements began in October 1994. The first combined cycle unit, with a summer capacity of 470 MW, is scheduled for commercial operation by November 1998. The transmission improvements associated with the first unit at this site are the rebuilding of the existing

230/115 kV double circuit Barcola - Ft. Meade line by increasing the conductor sizes and converting the line to double circuit 230 kV operation. The new lines will be relocated on the plant site to avoid conflicts with plant facilities, and will be looped into the plant substation.



Hines Energy Complex (Polk County)