ORIGINAL

Florida Power
CORPORATION

JAMES A. MCGEE
SENIOR COUNSEL

March 31, 2000

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

Re: Ten-Year Site Plan

Dear Ms. Bayó:

Pursuant to Rule 25-22.071, F.A.C., enclosed for filing are 25 copies of Florida Power Corporation's Ten-Year Site Plan as of December 31, 1999.

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.

00 APR -3 AM 11:22
MAILROOM

Very truly yours,

James A. McGee

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A Florida Progress Company

Florida
Power
CORPORATION

Ten-Year Site Plan

2000-2009

Submitted To:

State of Florida
Public Service Commission

APRIL, 2000

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FLORIDA POWER CORPORATION
CODE IDENTIFICATION SHEET

Generating Unit Type

ST - Steam Turbine - Non-Nuclear
NP - Steam Power - Nuclear
CT - 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

CA - 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

INTRODUCTION

Section 186.801 of the Florida Statutes requires generating electric utilities to submit a Ten-Year Site Plan (TYSP) to the Florida Public Service Commission (FPSC). The TYSP includes historical and projected data pertaining to the utility's load and resource needs as well as a review of those needs. It is compiled in accordance with FPSC Rules 25-22.070 through 25.072, Florida Administration Code.

Florida Power Corporation's (FPC) TYSP is based on projections of long-term planning requirements that are dynamic in nature and subject to change. These planning documents should be used for general guidance concerning FPC's planning assumptions and projections, and they should not be taken as an assurance that particular events discussed in the TYSP will materialize or that particular plans will be implemented. Information and projections pertinent to periods further out in time are inherently subject to the greatest uncertainty.

The TYSP document contains four chapters as described below:

CHAPTER 1

Description of EXISTING FACILITIES

CHAPTER 2

Forecast of ELECTRICAL POWER DEMAND and ENERGY CONSUMPTION

CHAPTER 3

Forecast of FACILITIES REQUIREMENTS

CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

Detailed schedules and a description of FPC's TYSP follow.

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CHAPTER 1 Description of EXISTING FACILITIES

EXISTING FACILITIES OVERVIEW

OWNERSHIP

FPC is an investor-owned electric utility. The company's common stock is held by Florida Progress Corporation which has over 41,000 registered shareholders. Approximately 17,500 of FPC 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. The company supplies electricity at retail to approximately 350 communities and at wholesale to about 9 municipalities. Wholesale supplemental electric service also is supplied to Seminole Electric Cooperative, Inc. (SECI), Florida Municipal Power Agency (FMPA), and Reedy Creek Improvement District.

TRANSMISSION/DISTRIBUTION

The company is part of a nationwide interconnected power network that enables power to be exchanged between utilities. The FPC transmission system includes over 4,700 circuit miles of transmission lines and over 80 transmission substations. The distribution system includes over 25,000 circuit miles, with over 7,000 of those miles underground. FPC has over 270 distribution substations.

ENERGY MANAGEMENT

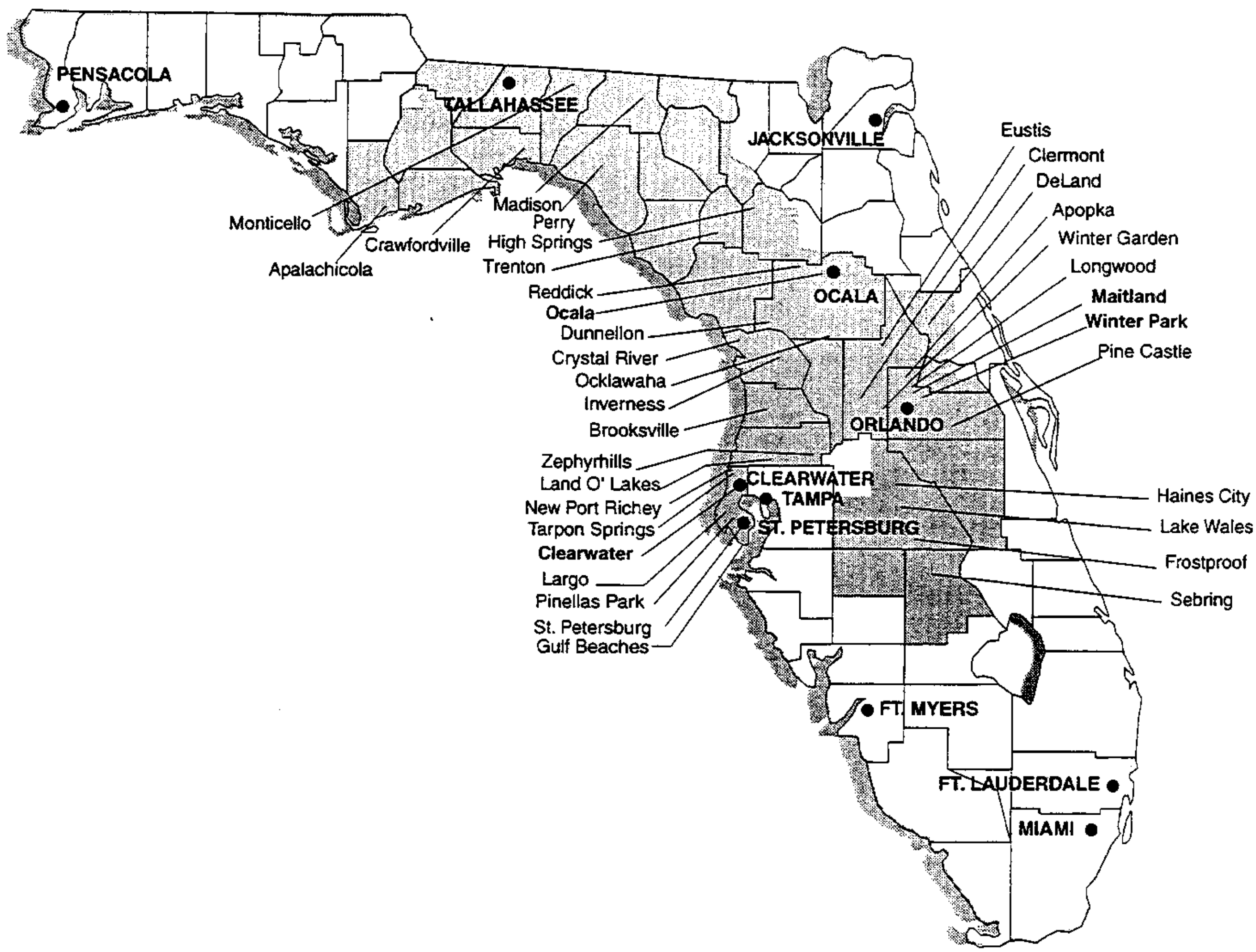
Florida Power customers participating in the company's Energy Management program are managing future growth and costs. Over 475,000 customers participated in the Energy Management program during the year. This excellent participation level provides over 870,000 KW of peak shaving capacity for use during high load periods.

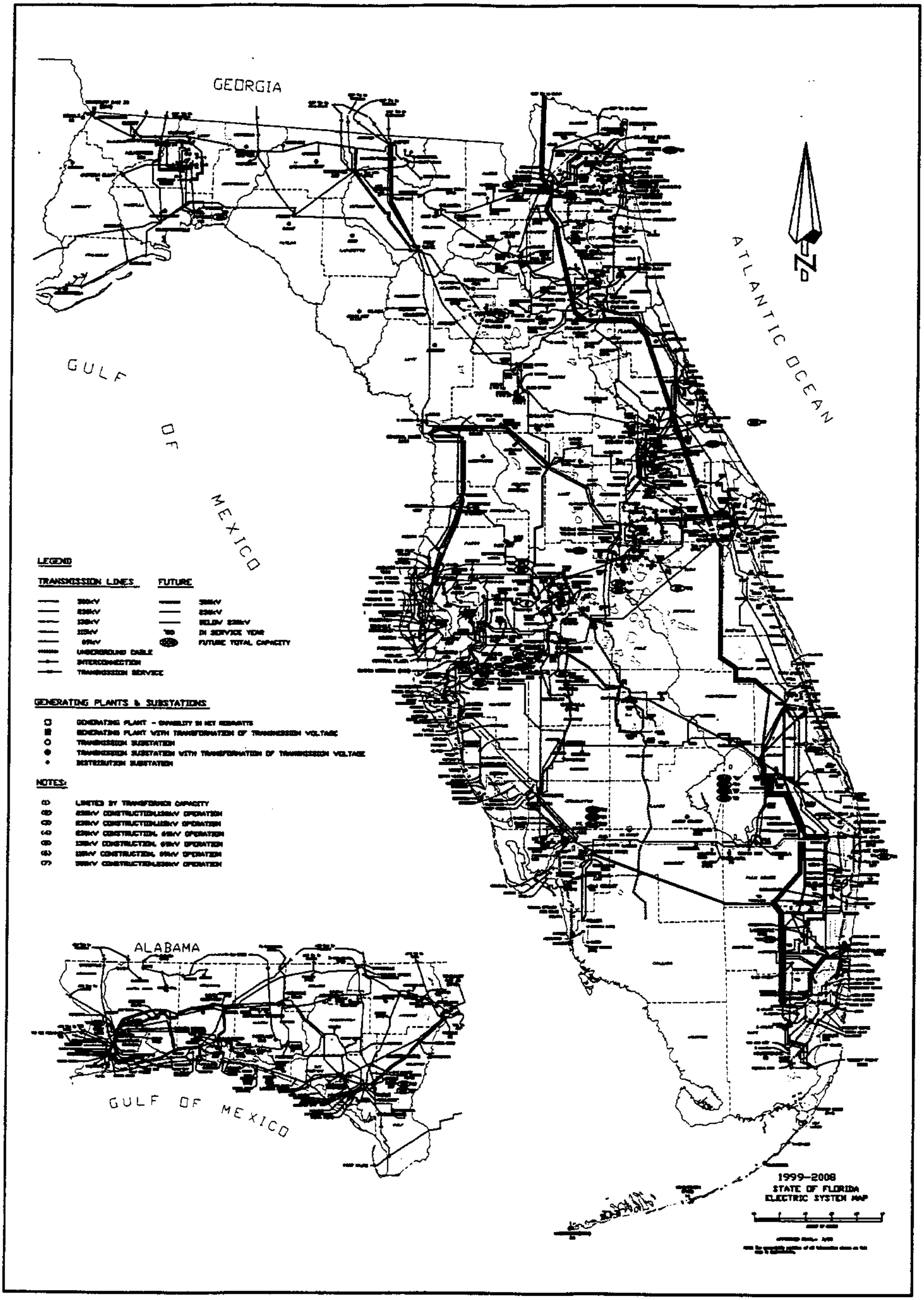
TOTAL CAPACITY RESOURCE

Florida Power has a total capacity resource of 9,567 MW. This capacity resource includes utility and non-utility purchased power, combustion turbine, nuclear, and fossil steam and combined cycle plants. Additional information on FPC's existing generating facilities is shown on Schedule 1.

Florida Power CORPORATION

Florida Power Corporation • Area of Service




GEORGIA
ATLANTIC OCEAN
GULF OF MEXICO
LEGEND
TRANSMISSION LINES
FUTURE
IN SERVICE YEAR
FUTURE TOTAL CAPACITY
UNDERGROUND CABLE
INTERCONNECTION
TRANSMISSION SERVICE
GENERATING PLANTS & SUBSTATIONS
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ALABAMA
GULF OF MEXICO
1999–2008
STATE OF FLORIDA
ELECTRIC SYSTEM MAP

FLORIDA POWER CORPORATION

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 1999

(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
												993	1,044
ANCLOTE	1	PASCO CO.	ST	F06	NG	PL	PL		10/1974		556,200	498	522
	2	SECT.33,34 T26S,R15E	ST	F06	NG	PL	PL		10/1978		556,200	495	522
												52	64
AVON PARK	P1	HIGHLANDS CO.	CT	NG	F02	PL	TK		12/1968	12/2006	33,790	26	32
	P2		CT	F02		TK			12/1968	12/2006	33,790	26	32
												631	671
BARTOW	1	PINELLAS CO.	ST	F06		WA			09/1958		127,500	121	123
	2	SECT.20,21,22	ST	F06		WA			08/1961		127,500	119	121
	3	T30S,R16E	ST	NG	F06	PL	WA		07/1963		239,360	204	208
	P1, P3		CT	F02		WA			06/1972		111,400	92	106
	P2		CT	NG	F02	PL	WA		06/1972		55,700	46	53
	P4		CT	NG	F02	PL	WA		06/1972		55,700	49	60
												184	232
BAYBORO	P1-P4	PINELLAS CO. SECT. 30 T31S,R17E	CT	F02		WA,TK			04/1973		226,800	184	232
												3,047	3,098
CRYSTAL RIVER	1	CITRUS CO.	ST	BIT		WA,RR			10/1966		440,550	379	383
	2	SECT.33	ST	BIT		WA,RR			11/1969		523,800	474	479
	3 *	T17S,R16E	NP	UR		TK			03/1977		890,460	765	782
	4		ST	BIT		WA,RR			12/1982		739,260	712	722
	5		ST	BIT		WA,RR			10/1984		739,260	717	732
												643	762
DEBARY	P1-P6	VOLUSIA CO.	CT	F02		TK,RR			04/1976		401,220	324	390
	P7-P9	SECT.16,19-21,	CT	NG	F02	PL	TK,RR		11/1992		345,000	240	279
	P10	28-30,T18S,R30E	CT	F02		TK,RR			11/1992		115,000	79	93
												122	134
HIGGINS	P1-P2	PINELLAS CO.	CT	NG	F02	PL	TK		04/1969	12/2005	67,580	54	64
	P3-P4	T25S,R16E	CT	NG	F02	PL	TK		12/1970	12/2005	85,850	68	70
												482	529
HINES ENERGY COMPLEX	1	POLK CO.	CC	NG	F02	PL	TK		04/1999		546,550	482	529
												789	912
INTERCESSION CITY	P1-P6	OSCEOLA CO.	CT	F02		PL,TK			05/1974		340,200	294	366
	P7-P10	SECT. 31	CT	NG	F02	PL	PL,TK		11/1993		460,000	352	376
	P11	T25S,R28E	CT	F02		PL,TK			01/1997		165,000	143	170
												13	16
RIO PINAR	P1	ORANGE CO.	CT	F02		TK			11/1970	12/2005	19,290	13	16
												307	347
SUWANNEE RIVER	1	SUWANNEE CO.	ST	NG	F06	PL	TK		11/1953	12/2003	34,500	32	33
	2	SECT. 26,	ST	NG	F06	PL	TK		11/1954	12/2003	37,500	31	32
	3	T1S,R11E	ST	NG	F06	PL	TK		10/1956	12/2003	75,000	80	81
	P1, P3		CT	NG	F02	PL	TK		11/1980		122,400	110	134
	P2		CT	F02		TK			11/1980		61,200	54	67
												207	223
TIGER BAY	1	POLK CO.	CC	NG		PL			08/1997		278,223	207	223
												154	194
TURNER	P1-P2	VOLUSIA CO.	CT	F02		TK			10/1970	12/2006	38,580	26	32
	P3	SECT. 1,	CT	F02		TK			08/1974		71,200	65	82
	P4	T19S,R30E	CT	F02		TK			08/1974		71,200	63	80
												35	41
UNIV. OF FLA.	P1	ALACHUA CO.	CT	NG		PL			01/1994		43,000	35	41
												7,659	8,267

* REPRESENTS 91.8 % FPC OWNERSHIP OF UNIT

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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 1.6 percent between 2000 and 2009, less than the ten-year historical average of 2.2 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 1980s. The reduction in the projected energy and demand growth rates from historical rates is mainly due to an assumed loss of a short-term wholesale contract with Seminole Electric Cooperative, Incorporated. 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.

Net energy for load, which had grown at an average of 3.9 percent between 1990 and 1999, is expected to increase by 1.8 percent per year from 2000-2009 in the base case, 2.2 percent in the high case and 1.4 percent in the low case.

Summer net firm demand is expected to grow an average of 1.3 percent per year during the next ten years. This compares to the 2.8 percent (weather adjusted) average annual growth rate experienced throughout the last ten years. Winter net firm demand is projected to grow at 1.1 percent per year after having increased by 2.1 percent (weather adjusted) per year from 1990 to 1999. High and low summer growth rates for net firm demand are 1.7 percent and 0.9 percent per year, respectively, while high and low winter net firm demand growth rates are 1.5 percent and 0.8 percent, respectively.

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.

FLORIDA POWER CORPORATION

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 KW CONSUMPTIOI PER CUSTOME
1990	2,509,322	2.490	12,416	1,007,806	12,320	7,329	113,595	64,519
1991	2,563,805	2.489	12,624	1,029,901	12,257	7,489	114,657	65,317
1992	2,614,610	2.490	12,826	1,050,077	12,214	7,544	116,727	64,629
1993	2,679,005	2.488	13,373	1,076,657	12,421	7,885	119,811	65,812
1994	2,738,046	2.488	13,863	1,100,537	12,597	8,252	122,987	67,097
1995	2,798,959	2.489	14,938	1,124,679	13,282	8,612	126,189	68,248
1996	2,845,495	2.492	15,481	1,141,671	13,560	8,848	129,441	68,356
1997	2,892,998	2.493	15,080	1,160,611	12,993	9,257	132,504	69,864
1998	2,952,439	2.496	16,526	1,182,786	13,972	9,999	136,345	73,339
1999	3,033,192	2.500	16,245	1,213,470	13,387	10,327	140,897	73,294
2000	3,063,882	2.489	17,652	1,230,736	14,342	10,839	142,923	75,836
2001	3,118,440	2.490	18,163	1,252,598	14,501	11,191	145,775	76,767
2002	3,172,383	2.490	18,683	1,274,213	14,662	11,535	148,595	77,626
2003	3,225,899	2.490	19,184	1,295,656	14,807	11,876	151,392	78,447
2004	3,278,647	2.490	19,677	1,316,791	14,943	12,216	154,150	79,250
2005	3,326,558	2.488	20,099	1,337,264	15,030	12,557	156,820	80,073
2006	3,375,001	2.487	20,520	1,357,066	15,121	12,914	159,403	81,017
2007	3,421,748	2.486	20,911	1,376,186	15,195	13,259	161,896	81,897
2008	3,467,563	2.486	21,291	1,394,931	15,263	13,542	164,341	82,400
2009	3,513,221	2.485	21,672	1,413,612	15,331	13,831	166,778	82,930

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
1990	3,456	3,115	1,109,470	0	21	1,658	24,880
1991	3,303	3,124	1,057,298	0	23	1,740	25,179
1992	3,254	3,137	1,037,297	0	24	1,765	25,413
1993	3,381	3,107	1,088,188	0	25	1,865	26,529
1994	3,580	3,186	1,123,666	0	26	1,954	27,675
1995	3,864	3,143	1,229,399	0	27	2,058	29,499
1996	4,223	2,927	1,442,774	0	26	2,205	30,784
1997	4,187	2,830	1,479,505	0	27	2,299	30,849
1998	4,375	2,707	1,616,180	0	27	2,459	33,386
1999	4,334	2,629	1,648,425	0	27	2,509	33,441
2000	4,326	2,560	1,689,844	0	29	2,664	35,510
2001	4,257	2,560	1,662,891	0	30	2,752	36,393
2002	4,287	2,560	1,674,609	0	31	2,842	37,378
2003	4,453	2,560	1,739,453	0	32	2,932	38,478
2004	4,494	2,560	1,755,469	0	32	3,023	39,443
2005	4,572	2,560	1,785,938	0	33	3,114	40,375
2006	4,623	2,560	1,805,859	0	33	3,204	41,295
2007	4,679	2,560	1,827,734	0	34	3,295	42,178
2008	4,731	2,560	1,848,047	0	34	3,386	42,984
2009	4,770	2,560	1,863,281	0	35	3,477	43,785

FLORIDA POWER CORPORATION

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
1990	1,548	1,377	27,805	10,983	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	2,020	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	2,340	2,037	37,763	19,013	1,340,851
1999	3,267	2,452	39,160	19,601	1,376,597
2000	2,977	2,359	40,846	20,101	1,396,320
2001	3,136	2,398	41,927	20,658	1,421,591
2002	1,691	2,260	41,330	21,210	1,446,578
2003	1,345	2,398	42,221	21,762	1,471,370
2004	1,339	2,486	43,268	22,315	1,495,816
2005	1,326	2,514	44,215	22,867	1,519,511
2006	1,354	2,566	45,214	23,418	1,542,447
2007	1,390	2,612	46,180	23,971	1,564,613
2008	1,423	2,658	47,066	24,523	1,586,355
2009	1,454	2,705	47,945	25,076	1,608,026

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
1990	6,096	632	5,464	198	342	35	24	49	136	5,312
1991	6,079	674	5,405	192	313	36	25	53	136	5,324
1992	6,519	813	5,706	150	287	39	25	58	141	5,819
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,520	7,519	292	505	113	45	153	183	7,747
2000	8,633	1,277	7,356	327	464	126	48	155	75	7,439
2001	8,840	1,343	7,497	308	414	136	49	156	75	7,701
2002	8,518	867	7,651	305	351	149	50	157	75	7,431
2003	8,337	506	7,831	328	305	162	51	158	75	7,258
2004	8,421	436	7,985	329	269	175	52	160	75	7,361
2005	8,574	433	8,141	335	238	190	54	161	75	7,522
2006	8,782	493	8,289	339	210	204	55	162	75	7,737
2007	8,988	555	8,433	343	185	218	57	163	75	7,947
2008	9,191	618	8,573	346	163	232	59	164	75	8,152
2009	9,394	681	8,713	349	144	246	61	165	75	8,354

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2009):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

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
1990	6,096	632	5,464	198	342	35	24	49	136	5,312
1991	6,079	674	5,405	192	313	36	25	53	136	5,324
1992	6,519	813	5,706	150	287	39	25	58	141	5,819
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,520	7,519	292	505	113	45	153	183	7,747
2000	8,737	1,277	7,460	327	464	126	48	155	75	7,543
2001	8,950	1,343	7,607	308	414	136	49	156	75	7,811
2002	8,656	867	7,789	305	351	149	50	157	75	7,569
2003	8,497	506	7,991	328	305	162	51	158	75	7,418
2004	8,646	436	8,210	329	269	175	52	160	75	7,586
2005	8,826	433	8,393	335	238	190	54	161	75	7,774
2006	9,092	493	8,599	339	210	204	55	162	75	8,047
2007	9,304	555	8,749	343	185	218	57	163	75	8,263
2008	9,571	618	8,953	346	163	232	59	164	75	8,532
2009	9,819	681	9,138	349	144	246	61	165	75	8,779

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2009):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

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
1990	6,096	632	5,464	198	342	35	24	49	136	5,312
1991	6,079	674	5,405	192	313	36	25	53	136	5,324
1992	6,519	813	5,706	150	287	39	25	58	141	5,819
1993	6,913	833	6,080	272	502	48	27	70	155	5,839
1994	6,880	787	6,093	262	527	52	30	81	154	5,774
1995	7,523	959	6,564	269	503	64	40	106	160	6,381
1996	7,470	828	6,642	309	565	69	41	120	167	6,199
1997	7,786	874	6,912	288	555	78	41	131	170	6,523
1998	8,367	943	7,424	291	438	97	42	142	182	7,175
1999	9,039	1,520	7,519	292	505	113	45	153	183	7,747
2000	8,444	1,277	7,167	327	464	126	48	155	75	7,250
2001	8,629	1,343	7,286	308	414	136	49	156	75	7,490
2002	8,299	867	7,432	305	351	149	50	157	75	7,212
2003	8,068	506	7,562	328	305	162	51	158	75	6,989
2004	8,134	436	7,698	329	269	175	52	160	75	7,074
2005	8,251	433	7,818	335	238	190	54	161	75	7,199
2006	8,422	493	7,929	339	210	204	55	162	75	7,377
2007	8,589	555	8,034	343	185	218	57	163	75	7,548
2008	8,752	618	8,134	346	163	232	59	164	75	7,713
2009	8,916	681	8,235	349	144	246	61	165	75	7,876

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2009):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

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
1989/90	7,596	875	6,721	230	503	52	0	47	150	6,614
1990/91	6,225	774	5,451	163	490	51	0	52	153	5,316
1991/92	7,163	972	6,191	181	611	60	0	55	155	6,101
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	9,993	1,647	8,346	326	849	229	21	119	190	8,259
2000/01	10,229	1,731	8,498	306	809	250	24	120	193	8,528
2001/02	9,940	1,274	8,666	304	744	273	27	121	190	8,282
2002/03	9,787	928	8,859	328	701	298	30	122	188	8,120
2003/04	9,902	877	9,025	329	673	325	33	123	189	8,230
2004/05	10,085	890	9,195	334	652	354	36	124	192	8,394
2005/06	10,322	968.	9,354	337	635	383	39	125	195	8,609
2006/07	10,559	1,046	9,513	342	619	412	42	126	198	8,820
2007/08	10,793	1,129	9,664	345	605	441	46	127	200	9,029
2008/09	11,022	1,210	9,812	348	592	470	49	128	203	9,233
2009/10	11,254	1,291	9,963	350	580	498	52	129	206	9,440

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned *self-service cogeneration.*

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2010):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

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
1989/90	7,596	875	6,721	230	503	52	0	47	150	6,614
1990/91	6,225	774	5,451	163	490	51	0	52	153	5,316
1991/92	7,163	972	6,191	181	611	60	0	55	155	6,101
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	10,115	1,647	8,468	326	849	229	21	119	190	8,381
2000/01	10,357	1,731	8,626	306	809	250	24	120	193	8,656
2001/02	10,099	1,274	8,825	304	744	273	27	121	190	8,441
2002/03	9,970	928	9,042	328	701	298	30	122	188	8,303
2003/04	10,159	877	9,282	329	673	325	33	123	189	8,487
2004/05	10,371	890	9,481	334	652	354	36	124	192	8,680
2005/06	10,673	968	9,705	337	635	383	39	125	195	8,960
2006/07	10,916	1,046	9,870	342	619	412	42	126	198	9,177
2007/08	11,220	1,129	10,091	345	605	441	46	127	200	9,456
2008/09	11,499	1,210	10,289	348	592	470	49	128	203	9,710
2009/10	11,788	1,291	10,497	350	580	498	52	129	206	9,974

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2010):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

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
1989/90	7,596	875	6,721	230	503	52	0	47	150	6,614
1990/91	6,225	774	5,451	163	490	51	0	52	153	5,316
1991/92	7,163	972	6,191	181	611	60	0	55	155	6,101
1992/93	7,191	851	6,340	155	599	67	0	57	159	6,154
1993/94	7,184	972	6,212	199	759	90	2	66	165	5,903
1994/95	9,084	1,145	7,939	281	997	101	5	75	131	7,494
1995/96	10,562	1,489	9,073	255	1,156	106	15	95	201	8,734
1996/97	8,486	1,235	7,251	290	917	133	16	104	190	6,836
1997/98	7,717	941	6,776	318	663	124	17	117	168	6,310
1998/99	10,473	1,741	8,732	305	874	196	18	117	187	8,776
1999/00	9,783	1,647	8,136	326	849	229	21	119	190	8,049
2000/01	9,994	1,731	8,263	306	809	250	24	120	193	8,293
2001/02	9,697	1,274	8,423	304	744	273	27	121	190	8,039
2002/03	9,487	928	8,559	328	701	298	30	122	188	7,820
2003/04	9,584	877	8,707	329	673	325	33	123	189	7,912
2004/05	9,727	890	8,837	334	652	354	36	124	192	8,036
2005/06	9,924	968	8,956	337	635	383	39	125	195	8,211
2006/07	10,118	1,046	9,072	342	619	412	42	126	198	8,379
2007/08	10,308	1,129	9,179	345	605	441	46	127	200	8,544
2008/09	10,495	1,210	9,285	348	592	470	49	128	203	8,706
2009/10	10,692	1,291	9,401	350	580	498	52	129	206	8,878

Historical Values (1990-1999):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = actual capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = Residential Heat Works load control, voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2000 - 2010):

Cols. (2) - (4) forecasted peak without load control and conservation.

Cols. (5) - (9) = load control/conservation capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = voltage reduction and customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

FLORIDA POWER CORPORATION

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 (%) *
1990	28,629	173	145	506	24,880	1,548	1,377	27,805	53.4
1991	29,219	166	156	509	25,179	1,411	1,799	28,389	53.5
1992	29,561	174	170	516	25,414	1,471	1,817	28,702	46.8
1993	31,150	188	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,135	205	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,682	219	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,797	235	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,739	254	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,936	275	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,362	298	339	565	33,441	3,267	2,452	39,160	53.7
2000	42,039	291	335	567	35,510	2,977	2,359	40,846	56.3
2001	43,138	309	337	565	36,393	3,136	2,398	41,927	56.1
2002	42,560	327	339	565	37,378	1,691	2,260	41,330	57.0
2003	43,473	347	341	565	38,478	1,345	2,398	42,221	59.4
2004	44,545	367	343	567	39,443	1,339	2,486	43,268	59.8
2005	45,513	388	345	565	40,375	1,326	2,514	44,215	60.1
2006	46,535	409	347	565	41,295	1,354	2,566	45,214	60.0
2007	47,523	429	349	565	42,178	1,390	2,612	46,180	59.8
2008	48,432	449	351	567	42,984	1,423	2,658	47,066	59.3
2009	49,332	469	353	565	43,785	1,454	2,705	47,945	59.3

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

* LOAD FACTOR FOR EACH HISTORICAL YEAR IS CALCULATED USING THE ACTUAL WINTER PEAK DEMAND; LOAD FACTOR FOR EACH FUTURE YEAR IS CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.1).

1990, 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND; PREVIOUS REPORTS WERE BASED ON A LOWER WINTER PEAK DEMAND.

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 (%) *
1990	28,629	173	145	506	24,880	1,548	1,377	27,805	53.4
1991	29,219	166	156	509	25,179	1,411	1,799	28,389	53.5
1992	29,561	174	170	516	25,414	1,471	1,817	28,702	46.8
1993	31,150	188	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,135	205	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,682	219	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,797	235	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,739	254	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,936	275	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,362	298	339	565	33,441	3,267	2,452	39,160	53.7
2000	42,784	291	335	567	36,193	2,977	2,421	41,591	56.5
2001	43,861	309	337	565	37,110	3,136	2,404	42,650	56.2
2002	43,529	327	339	565	38,243	1,691	2,364	42,298	57.2
2003	44,553	347	341	565	39,464	1,345	2,491	43,300	59.5
2004	45,933	367	343	567	40,770	1,339	2,547	44,656	59.9
2005	47,092	388	345	565	41,857	1,326	2,611	45,794	60.2
2006	48,430	409	347	565	43,089	1,354	2,666	47,109	60.0
2007	49,479	429	349	565	44,016	1,390	2,730	48,136	59.9
2008	50,749	449	351	567	45,170	1,423	2,789	49,382	59.5
2009	51,911	469	353	565	46,219	1,454	2,851	50,524	59.4

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

* LOAD FACTOR FOR EACH *HISTORICAL YEAR IS CALCULATED USING THE ACTUAL WINTER PEAK DEMAND;*
LOAD FACTOR FOR EACH FUTURE YEAR IS CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.2).

1990, 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND;
PREVIOUS REPORTS WERE BASED ON A LOWER WINTER PEAK DEMAND.

FLORIDA POWER CORPORATION

SCHEDULE 3.3.3

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

LOW 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 (%) *
1990	28,629	173	145	506	24,880	1,548	1,377	27,805	53.4
1991	29,219	166	156	509	25,179	1,411	1,799	28,389	53.5
1992	29,561	174	170	516	25,414	1,471	1,817	28,702	46.8
1993	31,150	188	195	524	26,528	1,695	2,020	30,243	51.3
1994	32,135	205	220	536	27,675	1,819	1,680	31,174	51.2
1995	34,682	219	246	549	29,499	1,846	2,322	33,667	49.8
1996	35,797	235	285	562	30,785	2,089	1,841	34,715	44.9
1997	35,739	254	317	563	30,850	1,758	1,997	34,605	49.0
1998	38,936	275	333	565	33,387	2,340	2,036	37,763	53.9
1999	40,362	298	339	565	33,441	3,267	2,452	39,160	53.7
2000	41,203	291	335	567	34,702	2,977	2,331	40,010	56.6
2001	42,117	309	337	565	35,463	3,136	2,307	40,906	56.3
2002	41,567	327	339	565	36,401	1,691	2,244	40,336	57.3
2003	42,181	347	341	565	37,237	1,345	2,346	40,928	59.7
2004	43,092	367	343	567	38,092	1,339	2,384	41,815	60.2
2005	43,880	388	345	565	38,837	1,326	2,419	42,582	60.5
2006	44,688	409	347	565	39,553	1,354	2,460	43,367	60.3
2007	45,449	429	349	565	40,222	1,390	2,494	44,106	60.1
2008	46,126	449	351	567	40,808	1,423	2,528	44,759	59.6
2009	46,795	469	353	565	41,392	1,454	2,562	45,408	59.5

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

* LOAD FACTOR FOR EACH HISTORICAL YEAR IS CALCULATED USING THE ACTUAL WINTER PEAK DEMAND; LOAD FACTOR FOR EACH FUTURE YEAR IS CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.3).

  1990, 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND; PREVIOUS REPORTS WERE BASED ON A LOWER WINTER PEAK DEMAND.

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	
	1999		2000		2001	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	8,318	2,855	8,259	3,110	8,528	3,213
FEBRUARY	6,964	2,511	7,160	2,890	7,410	2,955
MARCH	5,861	2,658	6,016	2,985	6,224	3,055
APRIL	6,197	3,116	5,694	2,918	5,938	2,953
MAY	6,726	3,296	6,666	3,637	6,948	3,696
JUNE	7,079	3,547	7,131	3,910	7,380	3,962
JULY	7,562	4,171	7,359	4,133	7,617	4,298
AUGUST	7,715	4,282	7,439	4,235	7,701	4,331
SEPTEMBER	7,216	3,679	6,938	3,757	7,183	3,851
OCTOBER	6,302	3,340	6,206	3,240	6,435	3,341
NOVEMBER	5,264	2,700	5,372	2,841	5,607	2,964
DECEMBER	6,791	3,005	6,831	3,190	7,065	3,308
TOTAL		39,160		40,846		41,927

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.

FLORIDA POWER CORPORATION

SCHEDULE 5

FUEL REQUIREMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	FUEL REQUIREMENTS		UNITS	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	NUCLEAR		TRILLION BTU	60	60	66	59	66	59	66	59	66	59	66	59
(2)	COAL		1,000 TON	5,713	5,365	5,529	5,800	5,806	5,747	5,752	5,878	5,891	5,926	5,914	6,000
(3)	RESIDUAL	TOTAL	1,000 BBL	10,906	9,991	7,602	8,408	7,990	8,965	7,648	8,022	7,084	7,560	6,523	7,419
(4)		STEAM	1,000 BBL	10,906	9,991	7,602	8,408	7,990	8,965	7,648	8,022	7,084	7,560	6,523	7,419
(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	1,873	1,672	2,381	3,514	3,026	3,790	1,969	3,197	1,423	2,361	1,067	1,971
(9)		STEAM	1,000 BBL	111	107	117	102	111	103	91	79	85	83	92	87
(10)		CC	1,000 BBL	0	0	4	110	203	253	145	218	68	115	48	83
(11)		CT	1,000 BBL	1,762	1,565	2,260	3,302	2,712	3,434	1,733	2,900	1,270	2,163	927	1,801
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	25,348	46,162	56,237	56,591	47,664	53,196	66,508	70,581	80,414	86,607	95,301	104,984
(14)		STEAM	1,000 MCF	1,260	6,726	681	0	0	0	0	0	0	0	0	0
(15)		CC	1,000 MCF	11,200	25,864	28,235	25,659	23,833	28,447	44,081	45,842	59,135	63,829	76,577	82,441
(16)		CT	1,000 MCF	12,888	13,572	27,321	30,932	23,831	24,749	22,427	24,739	21,279	22,778	18,724	22,543
(17)	OTHER (SPECIFY)			0	0	0	0	0	0	0	0	0	0	0	0

FLORIDA POWER CORPORATION

SCHEDULE 6.1

ENERGY SOURCES (GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	ANNUAL FIRM INTERCHANGE 1 /		GWh	-422	-463	98	102	82	103	63	103	60	84	45	75
(2)	NUCLEAR		GWh	5,863	5,842	6,330	5,654	6,378	5,666	6,377	5,657	6,351	5,648	6,360	5,655
(3)	COAL		GWh	14,892	14,149	14,308	15,146	15,176	15,057	15,039	15,398	15,408	15,534	15,475	15,745
(4)	RESIDUAL	TOTAL	GWh	7,031	6,214	4,760	5,306	5,036	5,711	4,855	5,142	4,496	4,832	4,128	4,745
(5)		STEAM	GWh	7,031	6,214	4,760	5,306	5,036	5,711	4,855	5,142	4,496	4,832	4,128	4,745
(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	762	665	850	1,287	1,142	1,456	736	1,219	524	902	380	741
10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
11)		CC	GWh	0	0	3	85	159	198	107	167	49	83	34	60
12)		CT	GWh	762	665	847	1,202	983	1,258	629	1,052	475	819	346	681
13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
14)	NATURAL GAS	TOTAL	GWh	2,498	5,391	5,903	5,804	5,033	5,773	7,737	8,225	9,928	10,765	12,369	13,527
15)		STEAM	GWh	140	825	59	0	0	0	0	0	0	0	0	0
16)		CC	GWh	1,216	3,537	3,925	3,554	3,292	3,953	6,139	6,427	8,417	9,121	11,031	11,908
17)		CT	GWh	1,142	1,029	1,919	2,250	1,741	1,820	1,598	1,798	1,511	1,644	1,338	1,619
18)	OTHER 2 /														
	QF PURCHASES		GWh	5,419	5,462	5,741	5,734	5,653	5,619	5,628	5,616	5,615	5,571	5,476	4,594
	IMPORT FROM OUT OF STATE		GWh	2,179	2,581	2,856	2,894	2,830	2,836	2,833	2,855	2,832	2,844	2,833	2,863
	EXPORT TO OUT OF STATE		GWh	-459	-681	0	0	0	0	0	0	0	0	0	0
19)	NET ENERGY FOR LOAD		GWh	37,763	39,160	40,846	41,927	41,330	42,221	43,268	44,215	45,214	46,180	47,066	47,945

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-											
	ENERGY SOURCES		UNITS	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
(1)	ANNUAL FIRM INTERCHANGE 1/		%	-1.1%	-1.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%	0.2%
(2)	NUCLEAR		%	15.5%	14.9%	15.5%	13.5%	15.4%	13.4%	14.7%	12.8%	14.0%	12.2%	13.5%	11.8%
(3)	COAL		%	39.4%	36.1%	35.0%	36.1%	36.7%	35.7%	34.8%	34.8%	34.1%	33.6%	32.9%	32.8%
(4)	RESIDUAL	TOTAL	%	18.6%	15.9%	11.7%	12.7%	12.2%	13.5%	11.2%	11.6%	9.9%	10.5%	8.8%	9.9%
(5)		STEAM	%	18.6%	15.9%	11.7%	12.7%	12.2%	13.5%	11.2%	11.6%	9.9%	10.5%	8.8%	9.9%
(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	%	2.0%	1.7%	2.1%	3.1%	2.8%	3.4%	1.7%	2.8%	1.2%	2.0%	0.8%	1.5%
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%	0.2%	0.4%	0.5%	0.2%	0.4%	0.1%	0.2%	0.1%	0.1%
12)		CT	%	2.0%	1.7%	2.1%	2.9%	2.4%	3.0%	1.5%	2.4%	1.1%	1.8%	0.7%	1.4%
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	%	6.6%	13.8%	14.5%	13.8%	12.2%	13.7%	17.9%	18.6%	22.0%	23.3%	26.3%	28.2%
15)		STEAM	%	0.4%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
16)		CC	%	3.2%	9.0%	9.6%	8.5%	8.0%	9.4%	14.2%	14.5%	18.6%	19.8%	23.4%	24.8%
17)		CT	%	3.0%	2.6%	4.7%	5.4%	4.2%	4.3%	3.7%	4.1%	3.3%	3.6%	2.8%	3.4%
18)	OTHER 2/														
	QF PURCHASES		%	14.4%	13.9%	14.1%	13.7%	13.7%	13.3%	13.0%	12.7%	12.4%	12.1%	11.6%	9.6%
	IMPORT FROM OUT OF STATE		%	5.8%	6.6%	7.0%	6.9%	6.8%	6.7%	6.5%	6.5%	6.3%	6.2%	6.0%	6.0%
	EXPORT TO OUT OF STATE		%	-1.2%	-1.7%	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 (-).

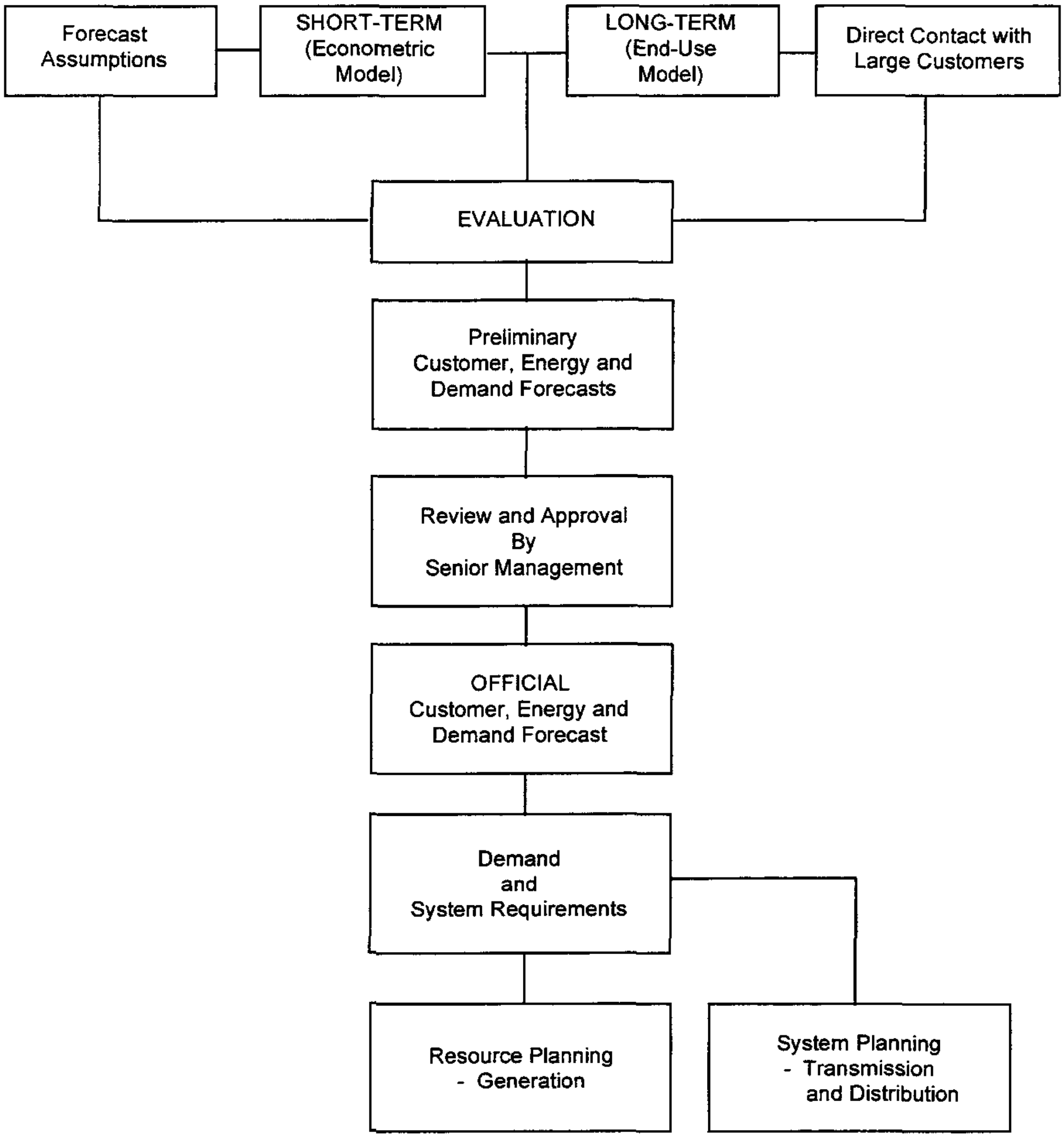
FORECASTING METHODS AND PROCEDURES

INTRODUCTION

The need for accurate forecasts of long-range electric energy consumption, customer growth, peak demand and system load shape is a crucial planning function for any electric utility. Accurate projections of a utility's future load growth require forecasting methodologies with the ability to account for a variety of factors influencing electric energy usage in both the short- and long-term planning horizons. FPC's forecasting framework 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 within 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 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 accounted for is some direct contact with large customers. These inputs provide the forecaster at FPC with the tools needed to frame the most likely scenario of the company's future demand.

CUSTOMER, ENERGY AND DEMAND FORECAST



SHAPESPC.PPT

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 Integrated Resource Planning and Forecasting 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. A twenty five-year average of service area weighted temperatures at the time of system seasonal peak is assumed to forecast seasonal 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. 123, February 1999 as well as The Florida Long Term Forecast 1999.

3. The energy-intensive phosphate mining industry consumed over 34 percent of FPC's industrial class energy sales in 1999. This industry has consolidated in the past few years, leaving just a handful of players to influence industry supply conditions in the marketplace. A reduction in power consumption in this sector is assumed in this forecast as IMC-Agrico mines-out at several sites within FPC's territory. The return of a significant portion of this load in the Hardee county mining area is projected to occur as mining activity moves further south. Some loss of load and energy sales to Cargill has also been factored into the forecast due to the rearrangement of electric output from their self-service generator and corresponding purchase power agreement with FPC.

4. FPC 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 levels currently requested by these customers under their contracts with FPC. The

forecast of energy and demand from partial requirements customers reflects their ability to receive dispatched energy from the Florida broker system any time it is more economical to do so. At seasonal peak conditions, however, their demand is assumed to reach full contract level. FPC's arrangement with Seminole Electric Cooperative, Incorporated (SECI) is to serve "supplemental" service over and above committed levels of self-generation and firm purchase contracts. SECI's projection of their system's demand and energy requirements serves as the basis for FPC's projection of this customer's supplemental service requirements. This forecast also includes two firm bulk power contracts with SECI. The first is a multi-part contract to serve 605 MW for three years beginning in 1999. An option to extend 455 MW of this contract for an additional seven years existed but was not exercised. The remaining 150 MW, a stratified intermediate contract transferred from the supplemental service contract, is assumed to continue throughout the forecast horizon. A second 3-year agreement with SECI to sell up to 300 MW of peaking capacity beginning January 1, 2000 has also been reflected in the forecast.

5. This forecast incorporates cost effective demand and energy reductions from FPC's dispatchable and non-dispatchable DSM programs that meet the conservation goals established by the Florida Public Service Commission in Order No. PSC-99-1942-FOF-EG issued October 1, 1999.

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 ten-year forecast attempts to reflect 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 short-term economic outlook calls for moderating 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. The U.S. economy has just surpassed the previous record for longest business cycle expansion in the history of the country -- 106 months. No recognized sources are currently predicting an end to this expansion, which has ridden on a wave of freer world trade as well as significant improvement in worker productivity created by great technological leaps in several industries. These productivity improvements have created an economy where corporate earnings improve without any need to increase product prices. The result has been a sharp rise in corporate equities values, and investor wealth, without inflation. This "new economy" has not only created significant wealth through rising stock prices, but also through the creation of a significant number of new jobs. The national unemployment rate is now well below the level when inflationary pressures are expected to return. It is believed that some percentage of the currently strong consumer spending level is being driven by a "wealth effect" created by inflated investment values. Thus, the ability of the national economy to maintain this level of growth rests on a continuation of rising equity values.

The national unemployment rate has reached a 30-year low of 4 percent. This has resulted in greater spending power for the consumer and a high level of optimism in the economy. Looking ahead however, growth will taper off due to constraints upon the economy, which has been expanding for over nine years. Efforts on the part of the Federal Reserve Board (FRB) to restrain inflationary pressures will ultimately result in the application of tighter monetary policy. This has already resulted in higher short-term interest rates and should slow the economy. The objective of the FRB is to cool consumption and keep employment costs from rising rapidly. Higher interest rates discourage borrowing, especially in the consumer and housing sectors, and can induce higher saving as money market returns improve.

It is assumed in this forecast that the FRB will gradually cool the economy without bursting the stock market "bubble" and the impact of the wealth effect that we have been experiencing. Also assumed is the idea that in a presidential election year, cooler heads will prevail and extreme spending and/or tax-cutting programs will not be seriously proposed or implemented. Both have the potential to counteract the FRB strategy to slow the economy. If a significant change in either government spending or taxation takes place in 2000 or 2001, a risk of increased inflation will surely drive the FRB to further boost interest rates. This will not bode well for the economy or the economic assumption underlying this forecast.

On a regional basis, interest rate levels will continue to influence the pace of economic growth in Florida through their impacts on the construction, retirement and tourism industries. An increase in personal income growth is expected to continue, but not at the torrid pace experienced in recent years. Employment growth will moderate from the strong pace experienced in past years resulting in slower growth in total wages. Slower growth in hourly earnings as well as transfer payments should also hold down income growth in the years ahead.

Average use per residential customer will continue to grow as electricity prices are projected to decline in real dollar terms. Also contributing to this trend are homebuilders' surveys reporting increased median square footage in new homes and new apartments constructed. New housing preferences have continued to reflect larger living quarters than those seen in the existing housing stock.

LONG-TERM ECONOMIC ASSUMPTIONS

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.

- 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 late 1990s and early twenty-first century 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 and 1990s made portions of Florida less desirable for retirement living. This diminished the quality of retiree life, and along with increasing competition from neighboring states, is expected to cause a slight decline in Florida's share of these prospective new residents over the long term.

- 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. In fact, slower population in-migration to Florida can be expected as the baby boom generation enters the 40s and 50s age bracket. This age group has been significantly characterized as immobile when studies focusing on interstate population flows or job changes are conducted.

Economic Growth Trends

- Florida's rapid population growth of the 1980s created a period of strong job creation, especially in the service sector industries. While the service-oriented economy expanded to support an 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. A cause for concern, however, is the passage of the North American Free Trade Agreement (NAFTA) as well as future trade agreements. 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.

- 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.

- Real personal incomes are assumed to increase throughout the forecast period thereby boosting 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, on average, will remain inclined to purchase additional electric appliances 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 remaining years of the forecast horizon.

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 sources. These include Data Resources Incorporated (DRI), the University of Florida's Bureau of Economic and Business Research and Blue Chip Economic Indicators. 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 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 in each sales month. This equation captures short-term movements in customer usage. Projections of KWh usage per customer combined with the customer forecast provide 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 level population projections are provided by the BEBR.

Commercial Sector

Commercial KWh use per customer is forecast based on commercial (non-agricultural, non-manufacturing and non-governmental) employment, the average number of billing days in each sales 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 unique behavior pattern 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 industrial energy use, 34 percent in 1999, 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 portion of total industrial class sales. Both groups are impacted by changes in short-term economic activity. However, adequately explaining sales levels requires 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 that lacks a significant automotive manufacturing sector.

The industrial phosphate mining industry is modeled using customer-specific information with respect to 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 specific 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 as well as the number of daylight hours per month 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 per customer, 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 per customer. Monthly government employment has been determined to be the best indicator of the level of government services provided. This variable, adjusted for the number of SPA customers, along with heating and cooling degree days, the real price of electricity 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. SPA customers are projected linearly as a function of a time-trend.

Sales For Resale Sector

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

Seminole Electric Cooperative, Incorporated (SECI) is a wholesale, or sales for resale, customer of FPC on both a supplemental contract basis and contract demand basis. Under the supplemental contract, FPC provides service for those energy requirements above the level of generation capacity served by either SECI's own facilities or firm purchase obligations. SECI provides FPC with a forecast of total monthly 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 ("committed") resources. Beyond supplemental service, FPC has signed two bulk power or "contract demand" agreements with SECI to serve stratified intermediate and peaking load. The first contract, an October 1995 agreement, has three pieces that impact the load and energy forecast in the years 1999 through 2001. The first two parts of this contract involve a 300 MW structured capacity sale and a 155 MW stratified peaking sale. The option to extend this sale for seven additional years beginning in 2002 was not exercised by SECI and, thus, will not be served by FPC. The third piece of the contract involves serving 150 MW of stratified intermediate demand and is assumed to remain a requirement on FPC's system throughout the forecast horizon. The load tied to this piece of the contract was carved out of the supplemental "pay as you take" contract and restructured to a contract demand. The second bulk power agreement with SECI, a three-year contract signed in July 1997, also involves load that would otherwise have been served via the supplemental service agreement. Beginning in the year 2000, FPC will supply 150 MW of stratified peaking demand. The amount of load increases to 300 MW in 2001 and 2002. This load is not projected to be served by FPC beyond the contract term.

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 full requirement 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. FPC provides partial requirement service (PR) to a municipality (New Smyrna Beach), 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 forecast for each PR wholesale customer is derived using its historical coincident demand to contract demand relationship (including transmission delivery losses). The demand projections for the Florida Municipal Power Agency (FMPA) also include a "losses service" MW amount to account for the transmission losses FPC incurs when "wheeling" power to their customers in FPC's transmission area. The contract demand level for each PR customer in its last contract year determines the load upon the FPC system for the remaining years of the forecast horizon, unless the customer has notified FPC of their intention to not renew the contract.

The methodology for projecting MWh energy usage for the PR customers differs slightly from customer to customer. This category of service is sporadic in nature and 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. For Reedy Creek and New Smyrna Beach, recent growth trends and historic load factor calculations are utilized to provide the expected level of MWh sales. Again, these customers 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 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 within the Resource Planning Department's production costing models. These models determine the most cost-effective means to meet system requirements, including load control. The DSM projections incorporated in this demand and energy forecast meet the conservation goals established by the FPSC in Order No. PSC-99-1942-FOF-EG, issued October 1, 1999 in Docket No. 971005-EG.

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 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.

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 and features 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 and capacity utilization indices for each 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 as well as expected end-use saturation levels. 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 together comprise 98.4 percent of FPC's 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 seasonal (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 net peak demand (excluding interruptible/curtailable/standby services) before the cumulative effects of any conservation activity or the activation of FPC's Load Management program. The historical values of this series are constructed to show the size of FPC's firm retail net peak demand if no utility-induced conservation or load control had 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 to total system customer levels at the time of the peak and coincident weather conditions without the impacts of year-to-year variation in conservation activity or load control reductions. Seasonal peaks are projected using historical seasonal peak data, regardless of which month the peak occurred. The projections become the potential retail demand projection for the months of January (winter) and August (summer), since this is typically when the seasonal peaks occur. The non-seasonal peak months are projected the same as the seasonal peaks, but the analysis is limited to the month being projected.

Energy conservation and direct load control estimates are consistent with FPC's DSM goals that were established by the Commission in the 1999 DSM Goals Docket. These estimates 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 SECI, FMPA 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 2005 - the last year of committed capacity declaration - SECI will hold constant their level of self-serve resources. For the partial requirements customers demand projections, historical ratios of coincident-to-contract levels of demand are applied to future MW contract levels. Demand requirements continue out at the level indicated by the final year in their respective contracts. The full requirements 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) in relation 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 and curtailable service 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

On October 25, 1994 the FPSC approved a set of numeric conservation goals for FPC in Docket No. 930549-EG, Order No. PSC-94-1313-FOF-EG. Later, in 1995, the Commission also approved FPC's Demand Side Management (DSM) Plan for meeting the conservation goals (in Docket No. 941171-EG, Order Nos. PSC-95-0691-FOF-EI and PSC-95-1344-S-EG). The following tables present FPC's historical DSM performance by showing the Commission approved conservation goals as well as the conservation savings actually achieved through its DSM programs for the period 1994 through 1999.

Historical Residential Conservation Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	**Goal**	**Achieved**	**Goal**	**Achieved**	**Goal**	**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	126	236	252	78	89
1999	116	145	290	292	100	114

Historical Commercial/Industrial Conservation Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	**Goal**	**Achieved**	**Goal**	**Achieved**	**Goal**	**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	63	20	58	110	158
1999	35	70	29	65	155	164

Most recently in Docket 971007-EG, Order No. PSC-99-1942-FOF-EG, issued October 1, 1999, the FPSC established new conservation goals for FPC that span the ten-year period from

2000 through 2009. As required by Rule 25-17.0021(4), Florida Administration Code, FPC then submitted for Commission approval a new DSM Plan that was specifically designed to meet the new conservation goals. The forecasts contained in this Ten-Year Site Plan document are based on FPC's proposed DSM Plan and, therefore, appropriately reflect the level of DSM savings required to meet the new Commission-established conservation goals. FPC currently offers four residential programs, eight commercial and industrial programs, and one research and development program. The programs are subject to periodic monitoring and evaluation for the purpose of ensuring that all DSM resources are acquired in a cost-effective manner and that the program savings are durable. 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. FPC is currently in the process of developing new Energy Management program options that will focus on winter peak utilization and will provide more cost-effective program options for FPC's customers.

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 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: 1) provides education and information to the design community on all aspects of energy efficient building design; 2) requires that the building design, at a minimum, surpass the state energy code; 3) provides financial incentives for specific energy efficient equipment; and 4) provides 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.

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 with an average billing demand of 500 KW or more, 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. In return for this ability to interrupt load, customers participating in the Interruptible Service program receive a monthly interruptible demand credit applied to their electric bill. In response to customer requests and discussions with the FPSC, FPC has been implementing improvements in the way in which these customer resources are called upon during periods of capacity shortage. Customer response has been favorable to the improvements that have been implemented.

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 with an average billing demand of 500 KW or more, who are willing to curtail 25 percent of their average monthly billing demand. Customers participating in the Curtailable Service program receive a monthly curtailable demand credit applied to their electric bill.

Research and Development Program

Technology Development Program

The primary 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 Administration 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.

CHAPTER 3 Forecast of FACILITIES REQUIREMENTS

RESOURCE PLANNING FORECAST

Overview of the Current Forecast

Supply-Side Resources: FPC has a Total Capacity Resource of 9,567 MW, as shown in Table 3.1, which reflects an increase of 35 MW from FPC's 1999 Ten-Year Site Plan. This capacity resource includes utility purchased power (469 MW), non-utility purchased power (831 MW), combustion turbine (2,775 MW), nuclear (782 MW), fossil steam (3,958 MW) and combined cycle plants (752 MW). Table 3.2 shows FPC's contracts for firm capacity provided by QFs.

Demand-Side Programs: FPC has experienced excellent levels of participation in its Demand-Side Management Programs. Total DSM resources are shown in Schedules 3.1.1 and 3.2.1 of Chapter 2. These programs include Non-Dispatchable DSM, Interruptible Load, and Dispatchable Load Control resources. FPC's 2000 Ten-Year Site Plan Demand-Side Management projections are consistent with the DSM Goals established by the Commission in Docket No. 971005-EG. This Plan also includes the effects of program attrition experienced in 1998 and 1999 as well as the projected program transitions which are expected to commence upon approval of FPC's recent program filings.

Capacity and Demand Forecast: FPC's forecast of capacity and demand for the projected summer and winter peaks are shown on Schedules 7.1 and 7.2, respectively. FPC's forecast of capacity and demand is based on serving expected growth in retail requirements in its regulated service area and meeting commitments to wholesale power customers who have entered into supply contracts with FPC. In its planning process, FPC balances its supply plan for the needs of retail and wholesale customers and endeavors to ensure that cost-effective resources are available to meet the needs across the customer base. Over the years, as wholesale markets have grown more competitive, FPC has remained active in the competitive solicitations while planning in a manner that maintains an appropriate balance of commitments and resources within the overall regulated supply framework.

Base Expansion Plan: FPC's planned supply resource additions and changes are shown in Schedule 8 and are referred to as FPC's Base Expansion Plan. This Plan includes 2,550 MW of proposed new capacity additions over the next ten years, including the 282 MW combustion turbine addition currently underway at Intercession City. As identified in Schedule 8, FPC's next planned need is a 567 MW (winter) power block in November 2003. In accordance with Rule 25-22.082 (F.A.C.), FPC issued a request for proposals (RFP) on January 26, 2000 to solicit competitive proposals for supply-side alternatives to its planning/bid evaluation benchmark, a second gas-fired combined cycle unit at the Hines Energy Complex. FPC will establish a plan to address this need when it has identified a resource plan that offers the most value to FPC and its customers.

FPC's Base Expansion Plan projects requirements for additional combined cycle units with proposed in-service dates of 2005, 2007 and 2009. These high efficiency gas-fired combined cycle units help the FPC system meet the growing energy requirements of its customer base and also contribute to meeting the requirements of the 1990 Clean Air Act Amendments. Fuel switching, SO_2 emission allowance purchases, re-dispatching of system generation and technology improvements are additional avenues available to FPC to ensure compliance with these important environmental requirements. (Status reports and specifications for new generation facilities are included in Schedule 9).

Existing Resources: Future changes to FPC's existing resources include a gas conversion at Suwannee River P2; turbine efficiency upgrades at Crystal River 1, 2 and 4; inlet fogging installations at Debary P7-10 to increase summer capacity; and plant retirements.

TABLE 3.1

FLORIDA POWER CORPORATION
TOTAL CAPACITY RESOURCE
Power Plants And Purchased Power

Plants	Number Of Units	Net Dependable Capability KW Winter
Nuclear Steam Plant		
Crystal River	1	782,000 *
Fossil Steam (FS) and Combined Cycle (CC) Plants		
Crystal River (FS)	4	2,316,000
Anclote (FS)	2	1,044,000
Paul L. Bartow (FS)	3	452,000
Suwannee River (FS)	3	146,000
Hines Energy Complex (CC)	1	529,000
Tiger Bay (CC)	1	223,000
Total FS and CC	14	4,710,000
Total Steam (Nuclear, FS and CC)	15	5,492,000
Combustion Turbines		
DeBary	10	762,000
Intercession City	11	912,000
Bayboro	4	232,000
Bartow	4	219,000
Suwannee	3	201,000
Turner	4	194,000
Higgins	4	134,000
Avon Park	2	64,000
University of Florida	1	41,000
Rio Pinar	1	16,000
Total Combustion Turbines	44	2,775,000
Total Units	59	
Total Net Generating Capability		**8,267,000**
Purchased Power		
Qualifying Facilities	15	831,000
Investor Owned Utilities	2	469,000
TOTAL CAPACITY RESOURCE		**9,567,000**

** Adjusted for sale of 8.2% of total capacity*

TABLE 3.2

FLORIDA POWER CORPORATION
QUALIFYING FACILITY GENERATION CONTRACTS
AS OF DECEMBER 31, 1999

FACILITY NAME	FIRM CAPACITY (MW)
BAY COUNTY RES. RECOV.	11
CARGILL	15
CFR-BIOGEN	74
DADE COUNTY RES. RECOV.	43
EL DORADO	114
LAKE COGEN	110
LAKE COUNTY RES. RECOV.	13
LFC JEFFERSON	8
LFC MADISON	8
MULBERRY	79
ORLANDO COGEN	79
PASCO COGEN	109
PASCO COUNTY RES. RECOV.	23
PINELLAS COUNTY RES. RECOV. 1	40
PINELLAS COUNTY RES. RECOV. 2	15
RIDGE GENERATING STATION	40
ROYSTER	31
TIMBER ENERGY 1	13
US AGRICHEM	6
TOTAL	**831**

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	QF	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM SUMMER 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
2000	7,553	469	0	831	8,853	7,439	1,414	19%	0	1,414	19%
2001	7,817	469	0	831	9,117	7,701	1,416	18%	0	1,416	18%
2002	7,834	469	0	818	9,121	7,431	1,690	23%	0	1,690	23%
2003	7,834	469	0	818	9,121	7,258	1,864	26%	0	1,864	26%
2004	8,186	469	0	818	9,473	7,361	2,112	29%	0	2,112	29%
2005	8,186	479	0	818	9,483	7,522	1,961	26%	0	1,961	26%
2006	8,546	479	0	818	9,843	7,737	2,106	27%	0	2,106	27%
2007	8,468	479	0	813	9,760	7,947	1,813	23%	0	1,813	23%
2008	8,963	479	0	798	10,240	8,152	2,088	26%	0	2,088	26%
2009	8,963	479	0	689	10,131	8,354	1,776	21%	0	1,776	21%

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
2000/01	8,590	469	0	831	9,890	8,528	1,362	16%	0	1,362	16%
2001/02	8,607	469	0	831	9,907	8,282	1,625	20%	0	1,625	20%
2002/03	8,607	469	0	818	9,894	8,120	1,774	22%	0	1,774	22%
2003/04	9,028	469	0	818	10,315	8,230	2,085	25%	0	2,085	25%
2004/05	9,028	479	0	818	10,325	8,394	1,931	23%	0	1,931	23%
2005/06	9,445	479	0	818	10,742	8,609	2,133	25%	0	2,133	25%
2006/07	9,349	479	0	813	10,641	8,820	1,821	21%	0	1,821	21%
2007/08	9,916	479	0	798	11,193	9,029	2,163	24%	0	2,163	24%
2008/09	9,916	479	0	689	11,084	9,233	1,851	20%	0	1,851	20%
2009/10	10,483	479	0	548	11,510	9,440	2,070	22%	0	2,070	22%

FLORIDA POWER CORPORATION

SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY

ADDITIONS AND CHANGES

(JANUARY 1, 2000 THROUGH DECEMBER 31, 2009)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				FUEL		FUEL TRANSPORT.		CONST.	COMMERCIAL	EXPECTED	GEN. MAX.	NET CAPABILITY			
	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	4	CITRUS CO.	ST	BIT		WA,RR			04/2000			17	17	CA	1
DEBARY	P7-9	VOLUSIA CO.	CT	NG	FO2	PL	TK,RR		05/2000			15	0	CA	2
DEBARY	P10	VOLUSIA CO.	CT	FO2		TK,RR			05/2000			5	0	CA	2
CRYSTAL RIVER	2	CITRUS CO.	ST	BIT		WA,RR			12/2000			24	24	CA	1
INTERCESSION CITY	P12-14	OSCEOLA CO.	CT	NG	FO2	PL	PL,TK	03/1999	12/2000			240	282	U	
SUWANNEE RIVER	P2	SUWANNEE CO.	CT	NG	FO2	PL	TK		05/2001			--	--	FC	3
CRYSTAL RIVER	1	CITRUS CO.	ST	BIT		WA,RR			12/2001			17	17	CA	1
HINES ENERGY COMPLEX	2	POLK CO.	CC	NG	FO2	PL	TK	08/2000	11/2003			495	567	P	
SUWANNEE RIVER	1-3	SUWANNEE CO.	ST	NG	FO6	PL	TK			12/2003	147,000	(143)	(146)	RE	4
HINES ENERGY COMPLEX	3	POLK CO.	CC	NG	FO2	PL	TK	08/2002	11/2005			495	567	P	
HIGGINS	P1-4	PINELLAS CO.	CT	FO2	NG	TK	PL			12/2005	153,430	(122)	(134)	RE	4
RIO PINAR	P1	ORANGE CO.	CT	FO2		TK				12/2005	19,290	(13)	(16)	RE	4
AVON PARK	P1	HIGHLANDS CO.	CT	FO2	NG	TK	PL			12/2006	33,790	(26)	(32)	RE	4
AVON PARK	P2	HIGHLANDS CO.	CT	FO2		TK				12/2006	33,790	(26)	(32)	RE	4
TURNER	P1-2	VOLUSIA CO.	CT	FO2		TK,WA				12/2006	38,580	(26)	(32)	RE	4
HINES ENERGY COMPLEX	4	POLK CO.	CC	NG	FO2	PL	TK	08/2004	11/2007			495	567	P	
HINES ENERGY COMPLEX	5	POLK CO.	CC	NG	FO2	PL	TK	08/2006	11/2009			495	567	P	

NOTES :

1 / CAPABILITY INCREASE (TURBINE EFFICIENCY UPGRADE).

2 / CAPABILITY INCREASE (INLET FOGGING INSTALLATION).

3 / FUEL CONVERSION TO NATURAL GAS; NO CHANGE IN NET CAPABILITY.

4 / 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:	INTERCESSION CITY P12 - 14
(2)	CAPACITY	
	a. SUMMER:	240 MW
	b. WINTER:	282 MW
(3)	TECHNOLOGY TYPE:	COMBUSTION TURBINE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	3/1999
	b. COMMERCIAL IN-SERVICE DATE:	12/2000 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION (NATURAL GAS) WATER INJECTION (DISTILLATE OIL)
(7)	COOLING METHOD:	AIR
(8)	TOTAL SITE AREA:	165 ACRES
(9)	CONSTRUCTION STATUS:	UNDER CONSTRUCTION
(10)	CERTIFICATION STATUS:	SITE PERMITTED
(11)	STATUS WITH FEDERAL AGENCIES:	SITE PERMITTED
(12)	PROJECTED UNIT PERFORMANCE DATA	
	PLANNED OUTAGE FACTOR (POF):	2.88 %
	FORCED OUTAGE FACTOR (FOF):	3.00 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	15.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	13,272 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:	495 MW
	b. WINTER:	567 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	8/2000
	b. COMMERCIAL IN-SERVICE DATE:	11/2003 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(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):	4.41 %
	FORCED OUTAGE FACTOR (FOF):	3.70 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	70.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	7,306 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 #3
(2)	CAPACITY	
	a. SUMMER:	495 MW
	b. WINTER:	567 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	8/2002
	b. COMMERCIAL IN-SERVICE DATE:	11/2005 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(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):	4.41 %
	FORCED OUTAGE FACTOR (FOF):	3.70 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	70.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	7,306 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 #4
(2)	CAPACITY	
	a. SUMMER:	495 MW
	b. WINTER:	567 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	8/2004
	b. COMMERCIAL IN-SERVICE DATE:	11/2007 (EXPECTED)
(5)	FUEL	
	a. PRIMARY FUEL:	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(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):	4.41 %
	FORCED OUTAGE FACTOR (FOF):	3.70 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	70.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	7,306 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 #5
(2)	CAPACITY	
	a. SUMMER:	495 MW
	b. WINTER:	567 MW
(3)	TECHNOLOGY TYPE:	COMBINED CYCLE
(4)	ANTICIPATED CONSTRUCTION TIMING	
	a. FIELD CONSTRUCTION START-DATE:	8/2006
	b. COMMERCIAL IN-SERVICE DATE:	11/2009 (EXPECTED)
(5)	FUEL	
	a. *PRIMARY FUEL:*	NATURAL GAS
	b. ALTERNATE FUEL:	DISTILLATE OIL
(6)	AIR POLLUTION CONTROL STRATEGY:	DRY LOW NOx COMBUSTION with SELECTIVE CATALYTIC REDUCTION
(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):	4.41 %
	FORCED OUTAGE FACTOR (FOF):	3.70 %
	EQUIVALENT AVAILABILITY FACTOR (EAF):	91.00 %
	ASSUMED CAPACITY FACTOR (%):	70.00 %
	AVERAGE NET OPERATING HEAT RATE (ANOHR):	7,306 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:	BARCOLA SUBSTATION - HINES ENERGY COMPLEX
(2)	NUMBER OF LINES:	1 (SECOND CIRCUIT OF 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:	MID 2003 IN-SERVICE, START CONSTRUCTION EARLY 2002
(7)	ANTICIPATED CAPITAL INVESTMENT:	$ 1,800,000
(8)	SUBSTATIONS:	N/A
(9)	PARTICIPATION WITH OTHER UTILITIES:	N/A

INTEGRATED RESOURCE PLANNING OVERVIEW

FPC employs an Integrated Resource Planning (IRP) process to determine the most cost-effective mix of supply- and demand-side alternatives that will reliably satisfy our customer's future energy needs. FPC's IRP process incorporates state-of-the-art computer models used to evaluate a wide range of future generation alternatives and cost-effective conservation and dispatchable demand-side management programs on a consistent and integrated basis.

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 are 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 to meet the company's reliability criteria. The resulting ten year plan, the Integrated Optimal Plan, is then tested under different sensitivity scenarios to identify variances, if any, that would warrant reconsideration of any of the base plan assumptions. If the plan is judged robust under sensitivity analysis and works within the corporate framework, it evolves as the Base Expansion Plan. This process is discussed in more detail in the following section titled "The IRP Process".

The Integrated Resource Plan provides FPC with substantial guidance in assessing and optimizing the Company's overall resource mix on both the supply side and the demand side. When a decision supporting a significant resource commitment is being developed (e.g. plant construction, power purchase, DSM program implementation), the Company will move forward with directional guidance from the IRP and delve much further into the specific levels of examination required. This more detailed assessment will typically address very specific technical requirements and cost estimates, detailed corporate financial considerations and the most current dynamics of the business and regulatory environments.

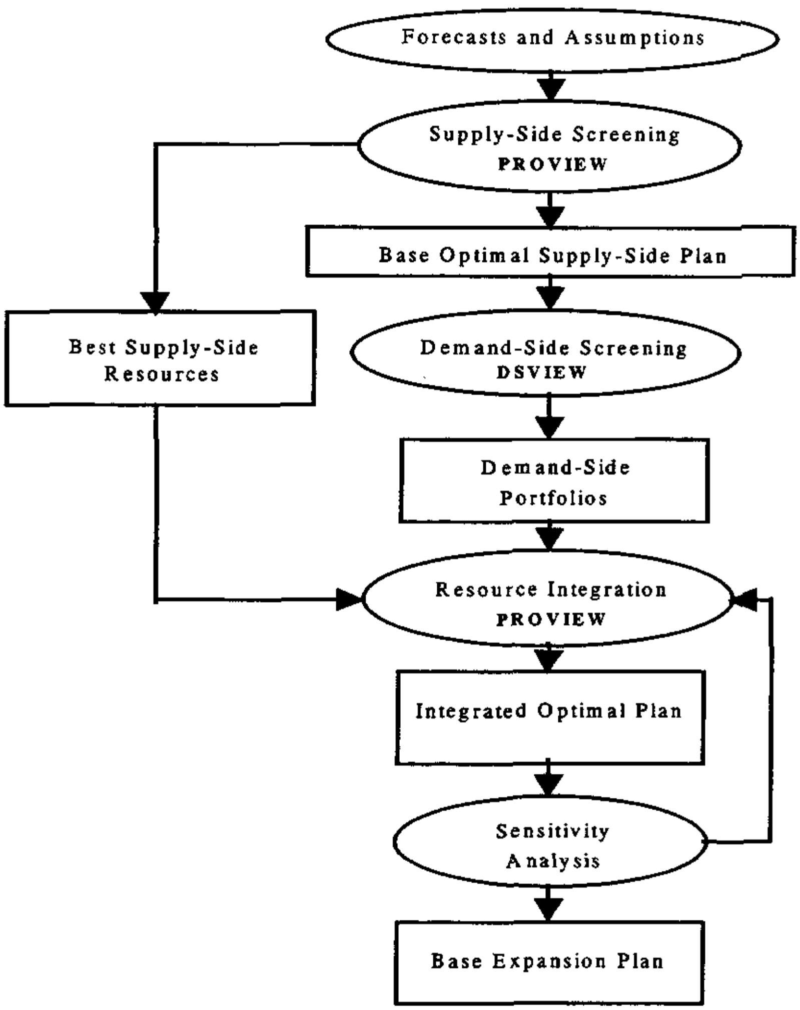


Figure 1: IRP Process Overview

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 which begins 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.

Reliability Criteria

FPC plans its resources to meet dual reliability criteria; reserve margin (over forecasted firm peak demand) and 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. In December 1999, the Florida Public Service Commission (FPSC) approved a joint proposal from the three major investor-owned utilities (Florida Power, Florida Power & Light and Tampa Electric) to increase minimum planning reserve levels to 20 percent by the summer of 2004 (Docket No. 981890-EU, Order No. PSC-99-2507-S-EU). Upon receiving acceptance from the FPSC of this proposal, FPC raised its targeted *minimum reserve margin to 20 percent* for the summer of 2004 and beyond and adapted this TYSP to meet this revised minimum level. In the interim period, FPC will maintain reserves above the *current minimum threshold of 15 percent*.

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. FPC's minimum reliability level threshold of *0.1 days per year LOLP* is an appropriate target for FPC's system and is very well supported in the industry. Typically, resource additions are triggered to meet reserve margin thresholds before LOLP becomes a factor, but FPC feels that this is still a meaningful supplemental reliability measure.

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. The wide range of resource options is 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.

Economic evaluation of generation alternatives is performed using the PROVIEW optimization program. The optimization program evaluates revenue requirements for specific resource plans generated from multiple combinations of future resource additions that meet system reliability criteria and other system constraints. All resource plans are then ranked by system revenue requirements. The optimization run produces the optimal supply-side only resource plan, which is considered the "Base Optimal Supply-Side Plan."

Demand-Side Screening

Like supply-side resources, data about large numbers of potential demand-side resources is also collected. These resources are pre-screened to eliminate those alternatives that are still in research and development, addressed by other regulations (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 to establish avoidable units for screening future demand-side resources. Each future demand-side alternative is individually tested in this plan over the ten year planning horizon 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 to create demand-side portfolios. These portfolios contain the appropriate DSM options and make the optimization solvable with the DSVIEW model.

Resource Integration And The Integrated Optimal Plan

The cost-effective generation alternatives and the demand-side portfolios developed in the screening process can then be optimized together to formulate an Integrated Optimal Plan. The optimization program considers all possible future combinations of supply-side and demand-side alternatives that meet the company's reliability criteria in each year of the ten-year study period and reports those that provide both flexibility and low revenue requirements for FPC's ratepayers.

Developing the Base Expansion Plan

The plans that provide the lowest revenue requirements are then further tested using sensitivity analysis. The economics of the plan are evaluated under high and low forecast scenarios for load, fuel and financial assumptions to ensure that the plan does not unduly burden the company or the ratepayers if the future unfolds in a manner significantly different from the base forecasts. From the sensitivity assessment, the ten year plan that is identified as achieving the best balance of flexibility and cost is then reviewed within the corporate framework to determine how the plan potentially impacts or is impacted by many other factors. If the plan is judged robust under this review it evolves as the Base Expansion Plan.

KEY CORPORATE FORECASTS

Fuel Forecast

Base Fuel Case: 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 the 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.

High Fuel Case: FPC's 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 based on the effect the coal market and inflation have on contract supply, spot supply, quality differences and the various transportation cost drivers. 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.

Low Fuel Case: FPC's 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 based on the effect the coal market and inflation have on contract supply, spot supply, quality differences and the various transportation cost drivers. 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.

Special Fuel Case: A constant oil and gas to coal differential fuel sensitivity forecast was also developed to examine the premise that the current differential price of oil and gas to coal could remain constant over time.

Financial Forecast

Base Financial Case: 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 *The U.S. Economy, November 1999.* 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 *The U.S. Economy, November 1999.* In general, the economy has a balanced growth path and a stable inflation rate.

Optimistic Financial Case: In the Optimistic Financial Case there is high growth and low stable inflation rate. DRI/McGraw Hill's *The U.S. Economy, November 1999* 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.

Pessimistic Financial Case: In the Pessimistic Financial Case there is low growth and high inflation. DRI/McGraw Hill's *The U.S. Economy, November 1999* 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.

CURRENT PLANNING RESULTS

TYSP Supply-Side Resources

In this TYSP, FPC's supply-side resources include the completion of three combustion turbine units at the Intercession City Site by December 2000 followed by the projected combined cycle expansion of the Hines Energy Complex (HEC) with Units 2 through 5 forecast to be in service by November 2003, 2005, 2007 and 2009, respectively. The new units at Hines are state-of-the-art combined cycle units similar to HEC Unit 1 (currently in service). As new advancements in combined cycle technologies mature, FPC will continue to examine the merits of these new alternatives to ensure the lowest possible expansion costs.

Plan Sensitivities

Sensitivities to load, fuel and financial forecasts were analyzed against the base plan. The base plan of constructing combined cycle units on gas was determined to be robust with respect to changes in the load, fuel and financial forecasts. The low load forecast sensitivity required less combined cycle generation. The high load forecast, which included increased retail demand and wholesale customer retention, indicated that additional combined cycle and combustion turbine units would potentially be required.

The high and low fuel forecast sensitivity results did not suggest any significant reconsideration of the base plan. The low fuel forecast did not point to any changes to the base plan. The high fuel forecast indicated a potential increase in benefits for future advanced technology combined cycle units (as the technologies mature) versus the current state-of-the-art combined cycle units. The additional sensitivity, holding the current differential price of oil and gas to coal constant over time, pointed toward a slight decrease in the value for combined cycle units. However, the variances resulting from these fuel sensitivities were not significant enough to consider departure from the base plan.

Request for Proposals

In accordance with Rule 25-22.082 (F.A.C.), FPC issued a request for proposals (RFP) on January 26, 2000 to solicit competitive proposals for supply-side alternatives to its planning/bid evaluation benchmark, a second gas-fired combined cycle unit at the Hines Energy Complex. FPC will establish a plan to address this need when it has identified a resource plan that offers the most value to FPC and its customers.

TRANSMISSION PLANNING

FPC's transmission planning assessment practices are developed to test the ability of the planned system to meet criteria. This involves the use of loadflow and transient stability programs to model various contingency situations that may occur, and determining if the system response meets criteria. In general, this involves running simulations for the loss of any single line, generator, or transformer, with any one generator scheduled out for maintenance. FPC normally runs this analysis for system load levels from minimum to peak for all possible contingencies, and for both summer and winter. Additional studies are performed to determine the system response to credible, less probable criteria, to assure the system meets FPC and Florida Reliability Coordinating Council, Inc. (FRCC) criteria. These studies include the loss of multiple generators or lines, and combinations of each, and some load loss is permissible under these more severe disturbances. These credible, less probable scenarios are also evaluated at various load levels, since some of the more severe situations occur at average or minimum load conditions. In particular, critical fault clearing times are typically the shortest (most severe) at minimum load conditions, with just a few large base load units supplying the system needs.

As noted in the FPC reliability criteria, some remedial actions are allowed to reduce system loadings, in particular, sectionalizing is allowed to reduce loading on lower voltage lines for bulk system contingencies, but the risk to load on the sectionalized system must be reasonable (it would not be considered prudent to operate for long periods with a sectionalized system). Also, the number of remedial action steps and the overall complexity of the scheme is evaluated to determine overall acceptability.

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

- FRCC: FRCC ATC Calculation and Coordination Procedures, December 1, 1999, which is posted on the FRCC website: (WWW.FRCC.COM/FRCC_ATC_COORD_DEC99.PDF)
- NERC: Transmission Transfer Capability, May 1995
- NERC: Available Transfer Capability - Definitions and Determination, May 1996

FPC uses the FRCC Capacity Benefit Margin (CBM) methodology to assess its CBM needs. This methodology is:

"FRCC Transmission Providers make an assessment of the CBM needed on their respective systems by using either deterministic or probabilistic generation reliability analysis. The appropriate amount of transmission interface capability is then reserved for CBM on a per interface basis, taking into account the amount of generation available on other interconnected systems, the respective load peaking diversities of those systems, and Transmission Reliability Margin (TRM). Operating reserves may be included if appropriate in TRM and subsequently subtracted from the CBM if needed."

FPC currently has zero CBM reserved on each of its interfaces (posted paths). FPC's CBM on each path is currently established through the transmission provider functions within FPC using deterministic and probabilistic generation reliability analysis.

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 2000-2009					
LINE OWNERSHIP	TERMINALS	TERMINALS	LINE LENGTH CKT. MILES	COMMERCIAL IN-SERVICE DATE (MO/YR)	NOMINAL OPERATING VOLTAGE (kV)
FPC	LAKE BRYAN	INTERCESSION CITY #2	10	11/2000	230
FPC, OUC	RIO PINAR	STANTON #2	3	12/2000	230
FPC	TAYLOR CREEK	HOLOPAW	1	11/2002	230
FPC	HINES ENERGY COMPLEX	BARCOLA #2	3	05/2003	230
FPC, TECO	BARCOLA	PEBBLEDALE	1 *	05/2003	230
FPC	LAKE BRYAN	WINDERMERE #2	10	05/2005	230
FPC	HINES ENERGY COMPLEX	WEST LAKE WALES #1	21	05/2005	230
FPC	INTERCESSION CITY	WEST LAKE WALES #2	30	05/2007	230
FPC	PERRY	DRIFTON	35	05/2007	230
FPC	HINES ENERGY COMPLEX	WEST LAKE WALES #2	21	05/2009	230
FPC	INTERCESSION CITY	GIFFORD	10	05/2009	230
FPC	GIFFORD	AVALON	10	05/2009	230

* Rebuild existing circuit

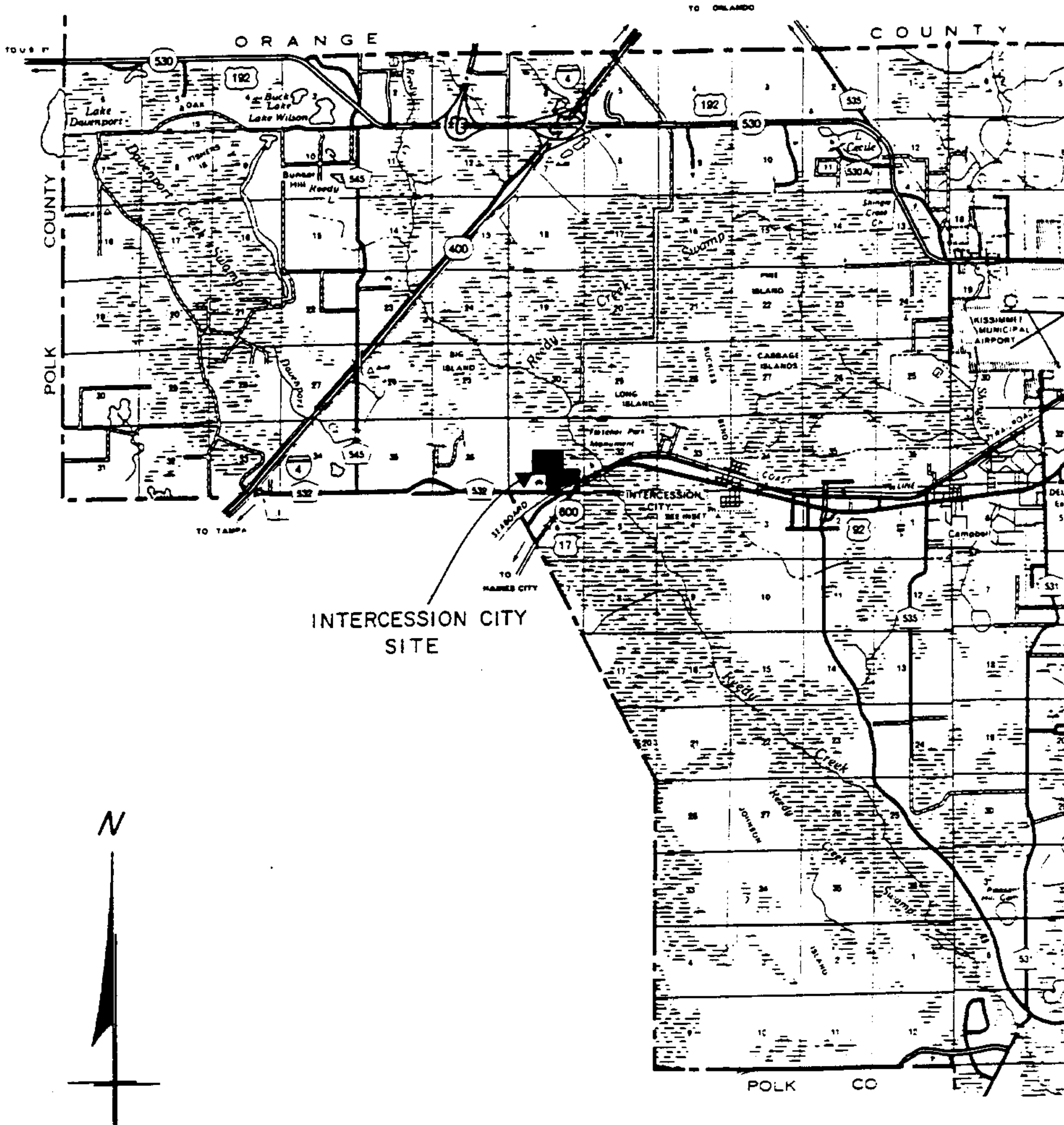
CHAPTER 4 ENVIRONMENTAL and LAND USE INFORMATION

PREFERRED SITES

FPC's base expansion plan proposes new generation at the Intercession City (IC) site in Osceola County and the Hines Energy Complex (HEC) site in Polk County. The IC site is an existing site with three additional combustion turbine units planned for December 2000. The HEC site is an existing site with the first additional combined cycle unit planned for November 2003. The preferred sites of IC and HEC meet 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 develop generation and still operate within their individual site permit limits. All appropriate permitting requirements have been addressed for FPC's preferred sites as discussed in the following site descriptions. Therefore, detail environmental or land use data is not included. The base expansion plan does not include any potential sites for new generating facilities.

INTERCESSION CITY SITE

Intercession City was chosen as the preferred site for installation of three additional combustion turbine peaking units by December 2000. The seasonal ratings for the Intercession City capacity addition are projected to be 240 MW summer (80 MW each) and 282 MW winter (94 MW each). The Intercession City Site consists of 165 acres in Osceola County (reference DWG IV-4), two miles west of Intercession City. The site is immediately west of Reedy Creek and the adjacent Reedy Creek Swamp. The site is adjacent to a secondary effluent pipeline from a municipal waste-water treatment plant, an oil pipeline, and a natural gas lateral serving the Kissimmee Utility Authority Cane Island facility. The Florida Department of Environmental Protection air rules currently list all of Osceola County as attainment for ambient air quality standards. The environmental impact on the site will be minimized by FPC's close coordination with regulatory agencies to ensure compliance with all applicable environmental regulations. The existing 230 kV transmission grid will accommodate these additional combustion turbine peaking units.



PRODUCTION ENGINEERING DEPARTMENT

PARTIAL AREA MAP
OSCEOLA CO. FL.

Florida Power

DRAWN BY G.S.K.	DATE 2-27-90	SCALE NONE
CHECKED BY	DATE	DISCIPLINE
APPROVED BY	DATE	PLANT/UNIT
DATA PROCESS NO.		SHEET
DWG. NO. IV - 4		

NO.	DESCRIPTION

HINES ENERGY COMPLEX SITE

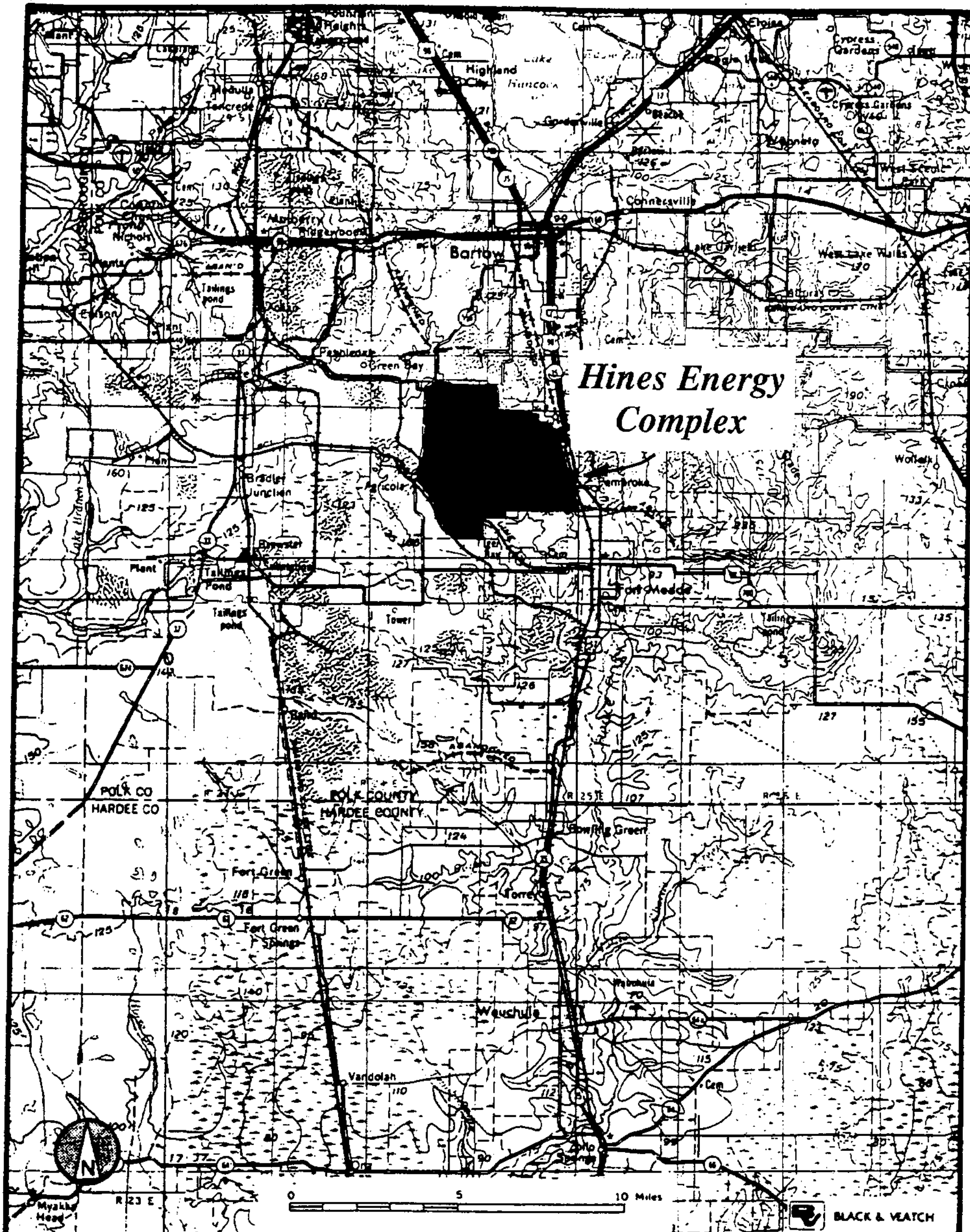
In 1990, FPC completed a state-wide search for a new 3,000 MW coal capable power plant site. As a result of this work, a large tract of mined out phosphate land in south-central Polk County was selected as the primary alternative. This 8,200 acre site is located near the cities of Fort Meade and Homeland, 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.

The first combined cycle unit at this site, with a capacity of 482 MW summer and 529 MW winter, began commercial operation in April 1999. The transmission improvements associated with this first unit were the rebuilding of the 230/115 kV double circuit Barcola to Ft. Meade line by increasing the conductor sizes and converting the line to double circuit 230 kV operation.

The transmission improvement associated with the second combined cycle unit at this site, planned for November 2003, is an additional 230 kV circuit from the Hines Energy Complex to Barcola.



Hines Energy Complex (Polk County)