Florida Power
A **Progress Energy** Company

ORIGINAL

JOHN J. FLYNN
MANAGER, REGULATORY POLICY

March 30, 2001

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

Undocketed

Re: Florida Power Corporation's 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, 2000.

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

Very truly yours,

John J. Flynn

JJF/msh
Enclosures

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Florida Power

A Progress Energy Company

Ten-Year Site Plan

APRIL, 2001

Florida Power

A Progress Energy Company

Ten-Year Site Plan

2001-2010

Submitted To:

State of Florida
Public Service Commission

APRIL, 2001

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CHAPTER 4 ENVIRONMENTAL and LAND USE INFORMATION

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LIST OF REQUIRED SCHEDULES

FLORIDA POWER CORPORATION
CODE IDENTIFICATION SHEET

Generating Unit Type

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

Fuel Type

NUC - Nuclear (Uranium)
NG - Natural Gas
RFO - No. 6 Residual Fuel Oil
DFO - No. 2 Distillate Fuel Oil
BIT - Bituminous Coal
MSW - Municipal Solid Waste
WH - Waste Heat
BIO - Biomass

Fuel Transportation

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

Future Generating Unit Status

A - Generating unit capability increased
FC - Existing generator planned for conversion to another fuel or energy source
P - Planned for installation but not authorized; not under construction
RP - Proposed for repowering or life extension
RT - Existing generator scheduled for retirement
T - Regulatory approval received but not under construction
U - Under construction, less than or equal to 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

CHAPTER 1 Description of EXISTING FACILITIES

EXISTING FACILITIES OVERVIEW

OWNERSHIP

Florida Progress Corporation (Florida Progress) is a wholly owned subsidiary of Progress Energy, Inc. (Progress Energy), a registered holding company under the Public Utility Holding Company Act (PUHCA) of 1935. Progress Energy and its subsidiaries, including Florida Progress, are subject to the regulatory provisions of the PUHCA. Florida Progress is the parent company of Florida Power Corporation (FPC) and certain other subsidiaries. Progress Energy controls FPC and the other Florida Progress subsidiaries through its ownership of Florida Progress.

AREA OF SERVICE

FPC provided electric service during 2000 to an average of 1.4 million customers in west central Florida. Its service area (see Area of Service Map) covers approximately 20,000 square miles and includes the densely populated areas around Orlando, as well as the cities of St. Petersburg and Clearwater. FPC is interconnected with 20 municipal and 9 rural electric cooperative systems. Major wholesale power sales customers include Seminole Electric Cooperative, Inc. (SECI) and Florida Municipal Power Agency (FMPA).

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 approximately 4,700 circuit miles of transmission lines and over 80 transmission substations. The distribution system includes approximately 27,000 circuit miles, with approximately 8,800 of those miles underground. FPC has approximately 270 distribution substations.

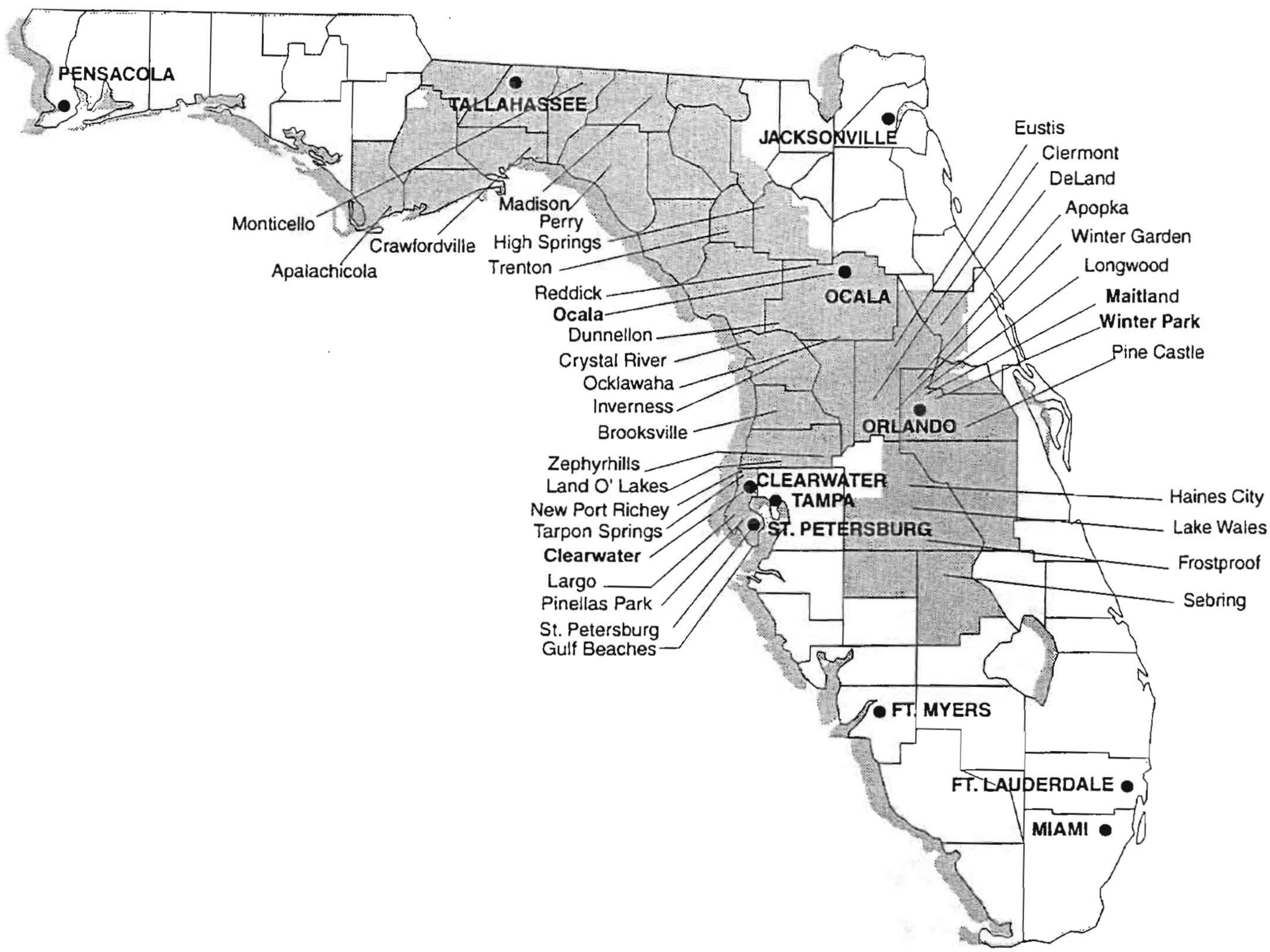
ENERGY MANAGEMENT

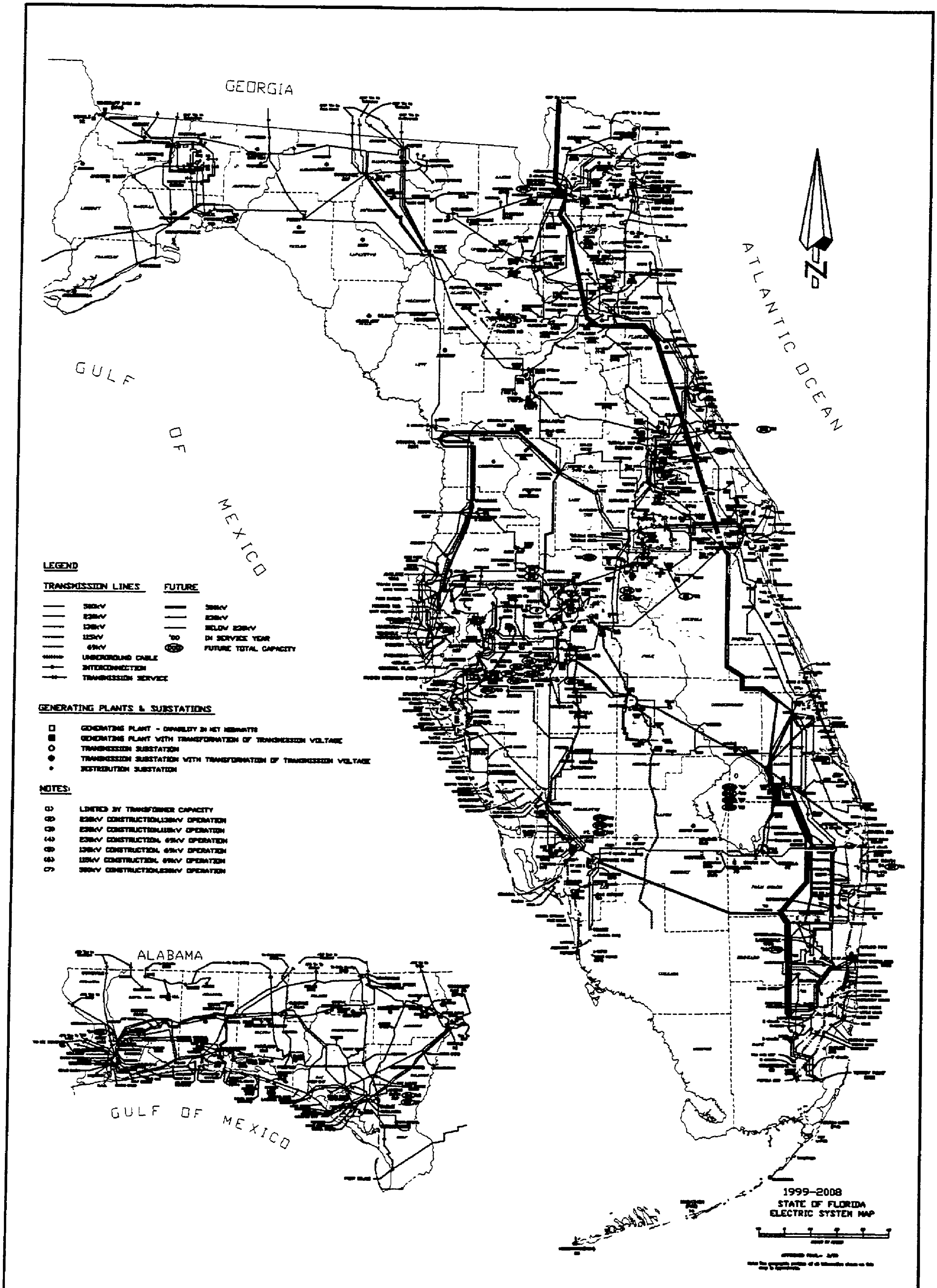
Florida Power customers participating in the company's Energy Management program are managing future growth and costs. Over 467,000 customers participated in the Energy Management program during the year. This excellent participation level provides over 850,000 KW of winter peak shaving capacity for use during high load periods.

TOTAL CAPACITY RESOURCE

As of December 31, 2000, Florida Power has a total summer capacity resource of 9,243 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 • Area of Service




GEORGIA
ATLANTIC OCEAN
GULF OF MEXICO
LEGEND
TRANSMISSION LINES
FUTURE
GENERATING PLANTS & SUBSTATIONS
NOTES:
ALABAMA
GULF OF MEXICO
1999-2008
STATE OF FLORIDA
ELECTRIC SYSTEM MAP

FLORIDA POWER CORPORATION

SCHEDULE 1
EXISTING GENERATING FACILITIES
AS OF DECEMBER 31, 2000

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
								ALT. FUEL	COM'L IN-	EXPECTED	GEN MAX	NET CAPABILITY	
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		DAYS	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	USE	MO./YEAR	MO./YEAR	KW	MW	MW
												993	1,044
ANCLOTE	1	PASCO	ST	RFO	NG	PL	PL		10/1974		556,200	498	522
	2		ST	RFO	NG	PL	PL		10/1978		556,200	495	522
												52	64
AVON PARK	P1	HIGHLANDS	GT	NG	DFO	PL	TK	3	12/1968	12/2006	33,790	26	32
	P2		GT	DFO		TK			12/1968	12/2006	33,790	26	32
												631	671
BARTOW	1	PINELLAS	ST	RFO		WA			09/1958		127,500	121	123
	2		ST	RFO		WA			08/1961		127,500	119	121
	3		ST	RFO	NG	WA	PL		07/1963		239,360	204	208
	P1, P3		GT	DFO		WA			06/1972		111,400	92	106
	P2		GT	NG	DFO	PL	WA	8	06/1972		55,700	46	53
	P4		GT	NG	DFO	PL	WA	8	06/1972		55,700	49	60
												184	232
BAYBORO	P1-P4	PINELLAS	GT	DFO		WA,TK			04/1973		226,800	184	232
												3,067	3,123
CRYSTAL	1	CITRUS	ST	BIT		WA,RR			10/1966		440,550	379	383
RIVER	2		ST	BIT		WA,RR			11/1969		523,800	486	491
	3 *		ST	NUC		TK			03/1977		890,460	765	782
	4		ST	BIT		WA,RR			12/1982		739,260	720	735
	5		ST	BIT		WA,RR			10/1984		739,260	717	732
												667	762
DEBARY	P1-P6	VOLUSIA	GT	DFO		TK,RR			04/1976		401,220	324	390
	P7-P9		GT	NG	DFO	PL	TK,RR	8	11/1992		345,000	258	279
	P10		GT	DFO		TK RR			11/1992		115,000	85	93
												122	134
HIGGINS	P1-P2	PINELLAS	GT	NG	DFO	PL	TK	1	04/1969	12/2005	67,580	54	64
	P3-P4		GT	NG	DFO	PL	TK	1	12/1970	12/2005	85,850	68	70
												482	529
HINES ENERGY COMPLEX	1	POLK	CC	NG	DFO	PL	TK	6	04/1999		546,550	482	529
												1,029	1,194
INTERCESSION	P1-P6	OSCEOLA	GT	DFO		PL,TK			05/1974		340,200	294	366
CITY	P7-P10		GT	NG	DFO	PL	PL,TK	5	11/1993		460,000	352	376
	P11 **		GT	DFO		PL,TK			01/1997		165,000	143	170
	P12-P14		GT	NG	DFO	PL	PL,TK	5	12/2000		345,000	240	282
												13	16
RIO PINAR	P1	ORANGE	GT	DFO		TK			11/1970	12/2005	19,290	13	16
												307	347
SUWANNEE	1	SUWANNEE	ST	RFO	NG	TK	PL		11/1953	12/2003	34,500	32	33
RIVER	2		ST	RFO	NG	TK	PL		11/1954	12/2003	37,500	31	32
	3		ST	RFO	NG	TK	PL		10/1956	12/2003	75,000	80	81
	P1, P3		GT	NG	DFO	PL	TK	10	11/1980		122,400	110	134
	P2		GT	DFO		TK			11/1980		61,200	54	67
												207	223
TIGER BAY	1	POLK	CC	NG		PL			08/1997		278,223	207	223
												154	194
TURNER	P1-P2	VOLUSIA	GT	DFO		TK			10/1970	12/2006	38,580	26	32
	P3		GT	DFO		TK			08/1974		71,200	65	82
	P4		GT	DFO		TK			08/1974		71,200	63	80
												35	41
UNIV OF FLA	P1	ALACHUA	GT	NG		PL			01/1994		43,000	35	41
												7,943	8,574

* REPRESENTS 91.8% FPC OWNERSHIP OF UNIT

** SUMMER CAPABILITY (JUNE THROUGH SEPTEMBER) OWNED BY GEORGIA POWER COMPANY

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CHAPTER 2

Forecast of ELECTRIC POWER DEMAND and ENERGY CONSUMPTION

CHAPTER 2 Forecast of ELECTRIC POWER DEMAND and ENERGY CONSUMPTION

OVERVIEW

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

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

FPC's customer growth is expected to average 1.6 percent between 2001 and 2010, less than the ten-year historical average of 2.1 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 4.2 percent between 1991 and 2000, is expected to increase by 1.6 percent per year from 2001-2010 in the base case, 2.0 percent in the high case and 1.2 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 2.7 percent (weather adjusted) average annual growth rate experienced throughout the last ten years. Winter net firm demand is projected to grow at 1.2 percent per year after having increased by 2.6 percent (weather adjusted) per year from 1991 to 2000. High and low summer growth rates for net firm demand are 1.7 percent and 1.0 percent per year, respectively, while high and low winter net firm demand growth rates are 1.6 percent and 0.9 percent, respectively.

Summer net firm retail demand is expected to grow an average of 2.3 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 retail demand is projected to grow at 2.0 percent per year after having increased by 2.7 percent (weather adjusted) per year from 1991 to 2000. High and low summer growth rates for net firm retail demand are 2.8 percent and 1.9 percent per year, respectively, while high and low winter net firm retail demand growth rates are 2.5 percent and 1.6 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 KWh CONSUMPTION PER CUSTOMER
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	68,247
1996	2,845,495	2.492	15,481	1,141,671	13,560	8,848	129,440	68,356
1997	2,892,998	2.493	15,080	1,160,611	12,993	9,257	132,504	69,862
1998	2,952,439	2.496	16,526	1,182,786	13,972	9,999	136,345	73,336
1999	3,033,192	2.500	16,245	1,213,470	13,387	10,327	140,897	73,295
2000	3,072,720	2.489	17,116	1,234,286	13,867	10,813	143,475	75,365
2001	3,130,231	2.490	18,013	1,257,121	14,329	11,189	146,734	76,254
2002	3,185,417	2.490	18,514	1,279,284	14,472	11,539	149,639	77,112
2003	3,239,276	2.490	19,017	1,300,914	14,618	11,886	152,472	77,955
2004	3,292,039	2.490	19,534	1,322,104	14,775	12,233	155,250	78,795
2005	3,341,240	2.488	20,062	1,342,942	14,939	12,576	157,981	79,605
2006	3,391,077	2.487	20,482	1,363,521	15,021	12,934	160,677	80,497
2007	3,440,502	2.486	20,872	1,383,951	15,081	13,279	163,354	81,290
2008	3,491,194	2.486	21,251	1,404,342	15,132	13,563	166,026	81,692
2009	3,540,648	2.485	21,632	1,424,808	15,182	13,852	168,708	82,106
2010	3,591,968	2.485	22,019	1,445,460	15,233	14,154	171,415	82,572

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
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	4,224	2,927	1,443,116	0	26	2,205	30,784
1997	4,188	2,830	1,479,859	0	27	2,299	30,851
1998	4,375	2,707	1,616,180	0	27	2,459	33,386
1999	4,334	2,629	1,648,536	0	27	2,509	33,442
2000	4,249	2,535	1,676,134	0	28	2,626	34,832
2001	4,490	2,560	1,753,906	0	28	2,772	36,492
2002	4,506	2,560	1,760,156	0	28	2,894	37,481
2003	4,577	2,560	1,787,891	0	29	3,018	38,527
2004	4,618	2,560	1,803,906	0	29	3,138	39,552
2005	4,670	2,560	1,824,219	0	29	3,256	40,593
2006	4,671	2,560	1,824,609	0	29	3,351	41,467
2007	4,717	2,560	1,842,578	0	30	3,446	42,344
2008	4,759	2,560	1,858,984	0	30	3,541	43,144
2009	4,799	2,560	1,874,609	0	30	3,637	43,950
2010	4,845	2,560	1,892,578	0	30	3,733	44,781

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
1991	1,411	1,799	28,389	11,555	1,159,237
1992	1,471	1,817	28,701	12,229	1,182,170
1993	1,695	2,020	30,244	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	1,842	34,715	18,035	1,292,073
1997	1,758	1,996	34,605	18,562	1,314,507
1998	2,340	2,037	37,763	19,013	1,340,851
1999	3,267	2,451	39,160	19,601	1,376,597
2000	3,732	2,678	41,242	20,004	1,400,300
2001	3,861	2,454	42,807	20,677	1,427,092
2002	2,040	2,235	41,756	21,233	1,452,716
2003	1,643	2,412	42,582	21,789	1,477,735
2004	1,560	2,491	43,603	22,346	1,502,260
2005	1,540	2,518	44,651	22,902	1,526,385
2006	1,547	2,574	45,588	23,457	1,550,215
2007	1,570	2,630	46,544	24,014	1,573,879
2008	1,619	2,677	47,440	24,571	1,597,499
2009	1,649	2,723	48,322	25,128	1,621,204
2010	1,679	2,768	49,228	25,685	1,645,120

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
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	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	8,907	1,410	7,497	300	414	139	54	156	75	7,769
2002	8,564	912	7,652	297	351	151	55	158	75	7,477
2003	8,467	636	7,831	320	305	164	56	159	75	7,388
2004	8,598	613	7,985	321	269	178	57	160	75	7,538
2005	8,743	602	8,141	327	238	192	59	161	75	7,691
2006	8,946	658	8,288	331	210	206	60	162	75	7,902
2007	9,157	724	8,433	335	185	221	62	163	75	8,116
2008	9,365	791	8,574	338	163	235	64	165	75	8,325
2009	9,568	855	8,713	341	144	248	66	166	75	8,528
2010	9,775	922	8,853	343	127	254	62	166	75	8,748

Historical Values (1991 - 2000):

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

Cols. (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols. (5) - (9) = Represent cumulative conservation and load control 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
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	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	9,007	1,410	7,597	300	414	139	54	156	75	7,869
2002	8,668	912	7,756	297	351	151	55	158	75	7,581
2003	8,594	636	7,958	320	305	164	56	159	75	7,515
2004	8,759	613	8,146	321	269	178	57	160	75	7,699
2005	8,966	602	8,364	327	238	192	59	161	75	7,914
2006	9,207	658	8,549	331	210	206	60	162	75	8,163
2007	9,459	724	8,735	335	185	221	62	163	75	8,418
2008	9,711	791	8,920	338	163	235	64	165	75	8,671
2009	9,945	855	9,090	341	144	248	66	166	75	8,905
2010	10,207	922	9,285	343	127	254	62	166	75	9,180

Historical Values (1991 - 2000):

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

Cols. (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols (5) - (9) = Represent cumulative conservation and load control 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
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	8,911	1,319	7,592	277	455	127	48	155	75	7,774
2001	8,703	1,410	7,293	300	414	139	54	156	75	7,565
2002	8,331	912	7,419	297	351	151	55	158	75	7,244
2003	8,223	636	7,587	320	305	164	56	159	75	7,144
2004	8,314	613	7,701	321	269	178	57	160	75	7,254
2005	8,434	602	7,832	327	238	192	59	161	75	7,382
2006	8,604	658	7,946	331	210	206	60	162	75	7,560
2007	8,781	724	8,057	335	185	221	62	163	75	7,740
2008	8,954	791	8,163	338	163	235	64	165	75	7,914
2009	9,119	855	8,264	341	144	248	66	166	75	8,079
2010	9,269	922	8,347	343	127	254	62	166	75	8,242

Historical Values (1991 - 2000):

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

Cols. (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols (5) - (9) = Represent cumulative conservation and load control 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
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	10,040	1,728	8,312	225	785	229	20	119	182	8,480
2000/01	10,276	1,778	8,498	298	809	254	29	120	194	8,572
2001/02	9,962	1,297	8,665	296	744	277	32	121	190	8,302
2002/03	9,900	1,043	8,857	320	701	302	35	122	189	8,231
2003/04	10,055	1,029	9,026	321	673	330	38	123	191	8,379
2004/05	10,229	1,034	9,195	326	652	358	41	124	194	8,534
2005/06	10,461	1,106	9,355	329	635	387	44	125	196	8,745
2006/07	10,701	1,188	9,513	334	619	416	48	126	199	8,959
2007/08	10,932	1,268	9,664	337	605	446	51	127	202	9,164
2008/09	11,162	1,349	9,813	340	592	474	54	128	205	9,369
2009/10	11,393	1,430	9,963	342	580	502	52	129	208	9,580
2010/11	11,625	1,510	10,115	344	568	502	52	129	211	9,819

Historical Values (1991 - 2000):

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

Cols (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols. (5) - (9) = Represent cumulative conservation and load control 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
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	10,040	1,728	8,312	225	785	229	20	119	182	8,480
2000/01	10,393	1,778	8,615	298	809	254	29	120	194	8,689
2001/02	10,085	1,297	8,788	296	744	277	32	121	190	8,425
2002/03	10,046	1,043	9,003	320	701	302	35	122	189	8,377
2003/04	10,240	1,029	9,211	321	673	330	38	123	191	8,564
2004/05	10,482	1,034	9,448	326	652	358	41	124	194	8,787
2005/06	10,756	1,106	9,650	329	635	387	44	125	196	9,040
2006/07	11,041	1,188	9,853	334	619	416	48	126	199	9,299
2007/08	11,320	1,268	10,052	337	605	446	51	127	202	9,552
2008/09	11,584	1,349	10,235	340	592	474	54	128	205	9,791
2009/10	11,873	1,430	10,443	342	580	502	52	129	208	10,060
2010/11	12,159	1,510	10,649	344	568	502	52	129	211	10,353

Historical Values (1991 - 2000):

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

Cols (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols. (5) - (9) = Represent cumulative conservation and load control 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
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	10,040	1,728	8,312	225	785	229	20	119	182	8,480
2000/01	10,049	1,778	8,271	298	809	254	29	120	194	8,345
2001/02	9,705	1,297	8,408	296	744	277	32	121	190	8,045
2002/03	9,629	1,043	8,586	320	701	302	35	122	189	7,960
2003/04	9,740	1,029	8,711	321	673	330	38	123	191	8,064
2004/05	9,886	1,034	8,852	326	652	358	41	124	194	8,191
2005/06	10,083	1,106	8,977	329	635	387	44	125	196	8,367
2006/07	10,284	1,188	9,096	334	619	416	48	126	199	8,542
2007/08	10,478	1,268	9,210	337	605	446	51	127	202	8,710
2008/09	10,667	1,349	9,318	340	592	474	54	128	205	8,874
2009/10	10,834	1,430	9,404	342	580	502	52	129	208	9,021
2010/11	11,030	1,510	9,520	344	568	502	52	129	211	9,224

Historical Values (1991 - 2000):

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

Cols. (5) - (9) = Represent total cumulative 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 (2001 - 2010):

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

Cols (5) - (9) = Represent cumulative conservation and load control 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 (%) *
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	42,471	319	345	565	34,832	3,732	2,678	41,242	50 5
2001	44,056	337	347	565	36,492	3,861	2,454	42,807	57.0
2002	43,025	355	349	565	37,481	2,040	2,235	41,756	57.4
2003	43,873	375	351	565	38,527	1,643	2,412	42,582	59.1
2004	44,918	395	353	567	39,552	1,560	2,491	43,603	59.2
2005	45,987	416	355	565	40,593	1,540	2,518	44,651	59.7
2006	46,947	437	357	565	41,467	1,547	2,574	45,588	59.5
2007	47,925	457	359	565	42,344	1,570	2,630	46,544	59.3
2008	48,845	477	361	567	43,144	1,619	2,677	47,440	58.9
2009	49,747	497	363	565	43,950	1,649	2,723	48,322	58.9
2010	50,653	497	363	565	44,781	1,679	2,768	49,228	58.7

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

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.1)

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 (%) *
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	42,471	319	345	565	34,832	3,732	2,678	41,242	50.5
2001	44,725	337	347	565	37,161	3,861	2,454	43,454	57.1
2002	43,722	355	349	565	38,178	2,040	2,235	42,569	57.7
2003	44,688	375	351	565	39,342	1,643	2,412	43,481	59.3
2004	45,915	395	353	567	40,549	1,560	2,491	44,668	59.4
2005	47,322	416	355	565	41,928	1,540	2,518	46,087	59.9
2006	48,488	437	357	565	43,008	1,547	2,574	47,226	59.6
2007	49,695	457	359	565	44,114	1,570	2,630	48,424	59.4
2008	50,853	477	361	567	45,152	1,619	2,677	49,567	59.1
2009	51,930	497	363	565	46,133	1,649	2,723	50,635	59.0
2010	53,128	497	363	565	47,256	1,679	2,768	51,807	58.8

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

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.2).

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 (%) *
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	42,471	319	345	565	34,832	3,732	2,678	41,242	50.5
2001	43,162	337	347	565	35,598	3,861	2,454	41,799	57.2
2002	41,979	355	349	565	36,435	2,040	2,235	40,722	57 8
2003	42,757	375	351	565	37,411	1,643	2,412	41,424	59.4
2004	43,583	395	353	567	38,217	1,560	2,491	42,185	59 6
2005	44,512	416	355	565	39,118	1,540	2,518	43,104	60.1
2006	45,293	437	357	565	39,813	1,547	2,574	43,836	59.8
2007	46,080	457	359	565	40,499	1,570	2,630	44,590	59.6
2008	46,809	477	361	567	41,108	1,619	2,677	45,283	59.2
2009	47,501	497	363	565	41,704	1,649	2,723	45,944	59.1
2010	48,086	497	363	565	42,214	1,679	2,768	46,473	58.8

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

* LOAD FACTORS FOR HISTORICAL YEARS ARE CALCULATED USING THE ACTUAL WINTER PEAK DEMAND EXCEPT 1993 AND 1998 HISTORICAL LOAD FACTORS ARE BASED ON THE ACTUAL SUMMER PEAK DEMAND.

LOAD FACTORS FOR FUTURE YEARS ARE CALCULATED USING THE NET FIRM WINTER PEAK DEMAND (SCHEDULE 3.2.3).

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	
	2000		2001		2002	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	9,303	3,146	8,572	3,340	8,302	3,229
FEBRUARY	8,136	2,824	7,513	2,911	7,211	2,865
MARCH	5,922	2,901	6,488	3,058	6,146	3,010
APRIL	5,923	2,847	6,066	3,041	5,708	2,991
MAY	8,166	3,749	6,992	3,784	6,680	3,684
JUNE	8,154	3,890	7,445	4,070	7,143	3,957
JULY	8,360	4,114	7,661	4,384	7,366	4,245
AUGUST	8,500	4,210	7,769	4,527	7,477	4,372
SEPTEMBER	8,014	3,847	7,302	3,907	6,988	3,799
OCTOBER	7,699	3,212	6,625	3,437	6,270	3,361
NOVEMBER	7,605	2,979	5,728	3,002	5,334	2,960
DECEMBER	9,203	3,523	7,116	3,346	6,754	3,283
TOTAL		41,242		42,807		41,756

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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
(1)	NUCLEAR		TRILLION BTU	60	67	58	66	60	66	60	66	60	66	60	66
(2)	COAL		1,000 TON	5,365	5,476	5,736	5,797	5,872	5,982	6,093	6,132	6,121	6,194	6,209	6,245
(3)	RESIDUAL	TOTAL	1,000 BBL	9,991	8,505	10,234	9,472	9,486	8,579	8,322	7,593	7,938	7,258	8,082	7,432
(4)		STEAM	1,000 BBL	9,991	8,505	10,234	9,472	9,486	8,579	8,322	7,593	7,938	7,258	8,082	7,432
(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	1,672	1,964	5,826	2,810	2,490	1,465	2,540	1,681	1,893	955	1,815	997
(9)		STEAM	1,000 BBL	107	169	64	75	100	64	74	83	85	80	69	79
(10)		CC	1,000 BBL	0	0	210	30	0	0	0	0	0	0	0	0
(11)		CT	1,000 BBL	1,565	1,795	5,552	2,705	2,390	1,401	2,466	1,598	1,808	875	1,746	918
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	46,162	52,991	44,195	52,754	65,530	70,797	79,803	83,259	90,556	93,775	104,485	108,333
(14)		STEAM	1,000 MCF	6,726	7,055	0	0	0	0	0	0	0	0	0	0
(15)		CC	1,000 MCF	25,864	32,268	20,771	23,601	29,548	42,391	45,929	57,430	60,786	71,708	76,263	88,598
(16)		CT	1,000 MCF	13,572	13,668	23,424	29,153	35,982	28,406	33,874	25,829	29,770	22,067	28,222	19,735
(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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
(1)	ANNUAL FIRM INTERCHANGE 1/		GWh	-463	21	53	24	-113	-297	-190	-279	98	114	201	141
(2)	NUCLEAR		GWh	5,842	6,609	5,754	6,502	5,888	6,522	5,888	6,507	5,888	6,523	5,885	6,505
(3)	COAL		GWh	14,149	14,426	14,960	15,133	15,365	15,643	15,973	16,060	16,053	16,233	16,303	16,383
(4)	RESIDUAL	TOTAL	GWh	6,214	5,484	6,456	5,952	6,000	5,433	5,312	4,813	5,061	4,601	5,160	4,708
(5)		STEAM	GWh	6,214	5,484	6,456	5,952	6,000	5,433	5,312	4,813	5,061	4,601	5,160	4,708
(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	665	763	2,466	1,108	957	552	989	632	738	340	707	364
(10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	0	146	21	0	0	0	0	0	0	0	0
(12)		CT	GWh	665	763	2,320	1,087	957	552	989	632	738	340	707	364
(13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	NATURAL GAS	TOTAL	GWh	5,391	6,106	4,613	5,416	6,740	7,924	8,859	9,999	10,823	11,840	13,039	14,190
(15)		STEAM	GWh	825	718	0	0	0	0	0	0	0	0	0	0
(16)		CC	GWh	3,537	4,382	2,862	3,258	4,091	5,849	6,360	8,073	8,563	10,185	10,892	12,678
(17)		CT	GWh	1,029	1,006	1,751	2,158	2,649	2,075	2,499	1,926	2,260	1,655	2,147	1,512
(18)	OTHER 2/														
	QF PURCHASES		GWh	5,462	5,236	5,714	5,627	5,589	5,609	5,597	5,596	5,565	5,480	4,585	4,501
	IMPORT FROM OUT OF STATE		GWh	2,581	3,160	2,791	1,994	2,156	2,217	2,223	2,260	2,318	2,309	2,442	2,436
	EXPORT TO OUT OF STATE		GWh	-681	-563	0	0	0	0	0	0	0	0	0	0
(19)	NET ENERGY FOR LOAD		GWh	39,160	41,242	42,807	41,756	42,582	43,603	44,651	45,588	46,544	47,440	48,322	49,228

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION

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	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
(1)	ANNUAL FIRM INTERCHANGE 1/		%	-1.2%	0.1%	0.1%	0.1%	-0.3%	-0.7%	-0.4%	-0.6%	0.2%	0.2%	0.4%	0.3%
(2)	NUCLEAR		%	14.9%	16.0%	13.4%	15.6%	13.8%	15.0%	13.2%	14.3%	12.7%	13.8%	12.2%	13.2%
(3)	COAL		%	36.1%	35.0%	34.9%	36.2%	36.1%	35.9%	35.8%	35.2%	34.5%	34.2%	33.7%	33.3%
(4)	RESIDUAL	TOTAL	%	15.9%	13.3%	15.1%	14.3%	14.1%	12.5%	11.9%	10.6%	10.9%	9.7%	10.7%	9.6%
(5)		STEAM	%	15.9%	13.3%	15.1%	14.3%	14.1%	12.5%	11.9%	10.6%	10.9%	9.7%	10.7%	9.6%
(6)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(7)		CT	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(8)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(9)	DISTILLATE	TOTAL	%	1.7%	1.9%	5.8%	2.7%	2.2%	1.3%	2.2%	1.4%	1.6%	0.7%	1.5%	0.7%
(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%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(12)		CT	%	1.7%	1.9%	5.4%	2.6%	2.2%	1.3%	2.2%	1.4%	1.6%	0.7%	1.5%	0.7%
(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	%	13.8%	14.8%	10.8%	13.0%	15.8%	18.2%	19.8%	21.9%	23.3%	25.0%	27.0%	28.8%
(15)		STEAM	%	2.1%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(16)		CC	%	9.0%	10.6%	6.7%	7.8%	9.6%	13.4%	14.2%	17.7%	18.4%	21.5%	22.5%	25.8%
(17)		CT	%	2.6%	2.4%	4.1%	5.2%	6.2%	4.8%	5.6%	4.2%	4.9%	3.5%	4.4%	3.1%
(18)	OTHER 2/														
	QF PURCHASES		%	13.9%	12.7%	13.3%	13.5%	13.1%	12.9%	12.5%	12.3%	12.0%	11.6%	9.5%	9.1%
	IMPORT FROM OUT OF STATE		%	6.6%	7.7%	6.5%	4.8%	5.1%	5.1%	5.0%	5.0%	5.0%	4.9%	5.1%	4.9%
	EXPORT TO OUT OF STATE		%	-1.7%	-1.4%	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 THE FRCC REGION.

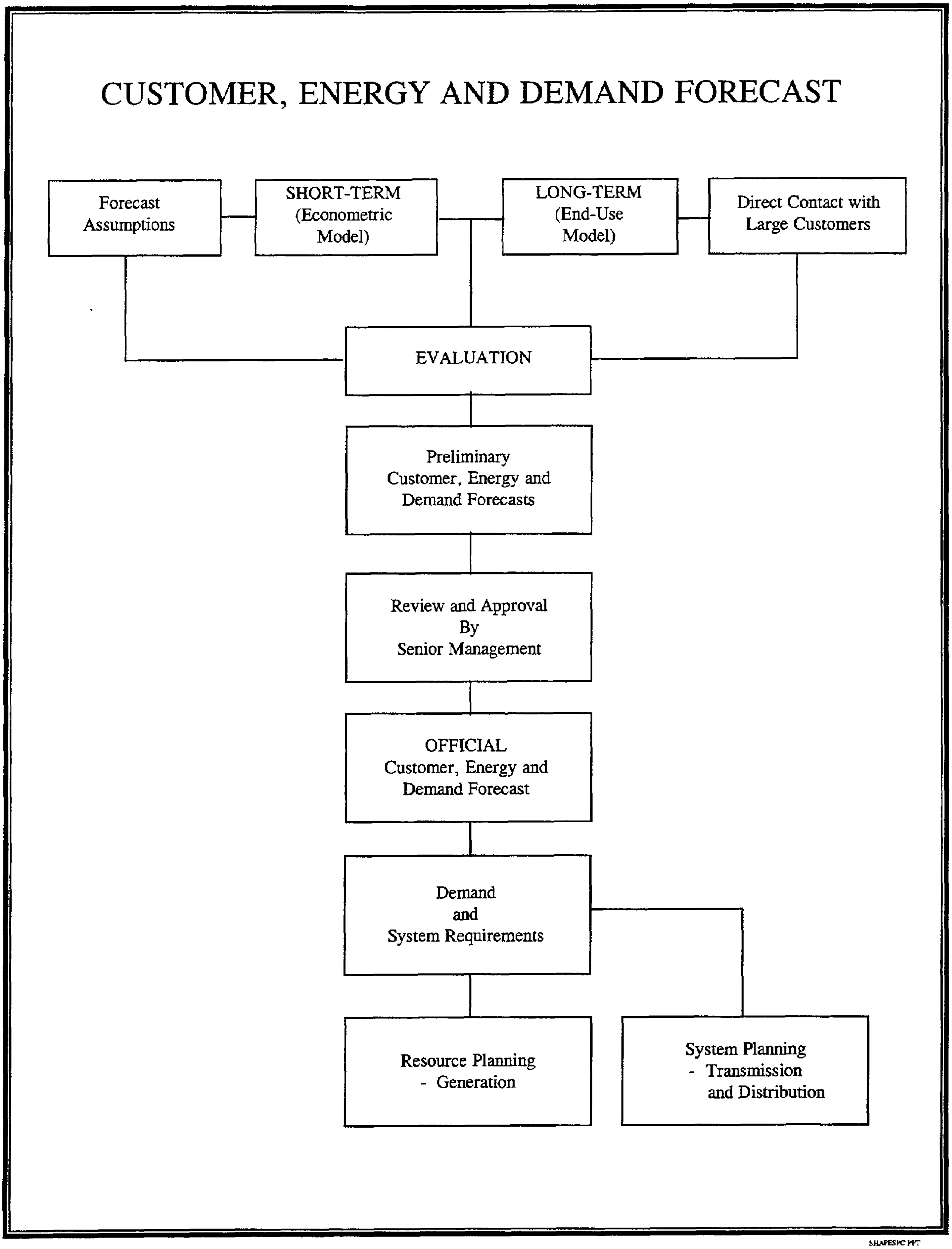
2/ NET ENERGY PURCHASED (+) OR SOLD (-).

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
Forecast Assumptions
SHORT-TERM (Econometric Model)
LONG-TERM (End-Use Model)
Direct Contact with Large Customers
EVALUATION
Preliminary Customer, Energy and Demand Forecasts
Review and Approval By Senior Management
OFFICIAL Customer, Energy and Demand Forecast
Demand and System Requirements
Resource Planning - Generation
System Planning - Transmission and Distribution
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 Financial Analysis 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 over the forecast horizon. For kilowatt-hour sales projections normal weather is based on a historical twenty-five year average of service area weighted billing month degree days. Seasonal peak demand projections are based on a twenty-five year historical average of system-weighted temperatures at time of seasonal peak.

2. The population projections produced by the Bureau of Economic and Business Research (BEBR) at the University of Florida as published in "Population Studies", Bulletin No. 126 (February 2000) provide the basis for development of the customer forecast. This forecast also incorporates economic assumptions produced by Standard & Poor's DRI in their Florida State Forecast (February 2000).

3. Within the State of Florida the phosphate mining industry accounts for a large majority of the U.S. phosphate supply and one-third of the global need. This energy intensive industry, which in the FPC service area consists of five major producers with either national and/or international influence upon the supply of phosphate-based fertilizers, consumed over 30 percent of industrial class kWh energy sales in 2000. Load and energy consumption at these FPC-served mining or chemical processing sites depend heavily on plant operations which are heavily influenced by both micro- and macroeconomic conditions. This industry is bouncing back from a period of excess mining capacity due to weak farm commodity prices worldwide. Weak farm commodity prices lead to lower crop production, which results in less demand for fertilizer products. The export market for fertilizer has been weak as well since the Asian/Russian financial crisis. However, foreign currency values appear to be moving favorably for U.S. exporters in the industry. In spite of all that has occurred, the phosphate producers in the FPC territory have pulled through fairly well. Going forward,

energy consumption is expected to remain close to current levels over the next 5 years as older mines close and new ones open further south in the service area.

4. Florida Power Corporation supplies load and energy service to wholesale customers on a "full", "partial" and "supplemental" requirement basis. Full requirements customers' demand and energy is assumed to grow at a rate that approximates their historical trend. Partial requirements customer load is assumed to reflect the current contractual obligations received by FPC as of May 31, 2000. The forecast of energy and demand to the partial requirements customers reflect the nature of the stratified load they have contracted for, plus their ability to receive dispatched energy from power marketers any time it is more economical for them to do so. FPC's arrangement with Seminole Electric Cooperative, Inc. (SECI) is to serve "supplemental" service over and above stated levels they commit to supply themselves. SECI's projection of their system's requirements in the FPC control area has been incorporated in determining their supplemental requirements. This forecast also incorporates two additional firm power contracts with SECI. The first is a multi-part contract to supply 605 MW for three years. It began in 1999 and extends through 2001. An option to extend one piece of this contract (150 MW) has been exercised by SECI and will continue beyond 2001. A second 3-year agreement with SECI -- 300 MW of peaking power that began in 2000 and continues through 2002 -- has also been reflected in the forecast.

5. This forecast assumes that FPC will successfully renew all future franchise agreements.

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

7. Expected energy and demand reductions from self-service cogeneration are also included in this forecast. FPC will supply the supplemental load of self-service cogeneration customers. While FPC offers "standby" service to all cogeneration customers, the forecast does not assume an unplanned need for standby power.

8. This forecast assumes that the regulatory environment and the obligation to serve our retail customers will continue throughout the forecast horizon. The ability of wholesale customers to switch suppliers has ended the company's obligation to serve these customers beyond their contract life. As a result, the company does not plan for generation resources unless a long-term contract is in place. Current "all requirements" customers are assumed to not renew their contracts with FPC. Current "partial requirements" contracts are projected to terminate as terms reach their expiration date. Deviation from these assumptions can occur as information from the Term Marketing department indicates that a wholesale customer has limited options in the marketplace to replace FPC capacity more economically.

9. The economic outlook for this 10-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 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 moderate economic growth throughout the forecast horizon. No "shocks" to any supply or demand condition in the national economy are expected and thus no economic recession is incorporated in this forecast. The U.S. economy, which has recently surpassed the previous record for longest business cycle expansion in the history of the country, has slowed dramatically by year-end 2000. The stock market bubble that generated so much wealth and investment the past few years has burst, leaving both consumers and business cautious. Talk of a "new economy" able to handle endless, inflation-free growth is no longer spoken. Sharply higher energy costs have cut back consumer purchasing power as well as corporate earnings. Many corporations have announced layoffs and are working off bloated inventories. Some believe that this slowdown can be attributed to an over-tightening of the money supply by the Federal Reserve Board (FRB) as it tried to cool an over-heated economy. The FRB increased short-term interest rates five times in the 1999-2000 period in an effort to stave off perceived inflationary pressures. Plummeting consumer confidence has led some to believe that the U.S economy was in recession as we entered 2001.

Not everyone was as pessimistic, however. Two quick maneuvers by the FRB in January 2001 reduced interest rates by 100 basis points and convinced some economists that a hard landing would be averted. This "camp" highlights the continued housing starts data and the sharp increase in mortgage refinancing applications. Home loan refinancing usually results in lowering borrowing costs to homeowners, leaving them with higher discretionary income to fuel the next expansion. Expectations of a major tax cut by the incoming Bush administration is also mentioned as fuel for economic growth later in 2001. Whether a near term recession is averted or not, the rapid expansion of the late 1990s is not expected to return. The strong consumer spending that was driven by a "wealth effect" -- created by inflated investment values -- appears to be a thing of the past.

Going forward, this forecast assumes that the FRB will orchestrate a proper balance of economic growth with low inflation via monetary policy measures. A shift from pursuing inflationary pressures to maintaining economic growth will keep the economy from slipping into recession. Energy prices are also expected to settle at an equilibrium level between the depressed prices of the 1998-1999 period and the peaks reached in the winter 2000-2001.

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. Personal income is expected to continue growing, 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 that 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 manufacturers looking to relocate to a lower cost foreign environment. Mexico is expected to attract a formidable share of American manufacturing jobs that may have otherwise 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 remain below the general rate of inflation over 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 concerns. These include Data Resources Incorporated (DRI) and the University of Florida's Bureau of Economic and Business Research. Internal company forecasts are used for projections of electric price, weather conditions and the length of the billing month. 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 was consumed by the phosphate mining industry. Because this one industry dominated over a 30 percent 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 require separate explanatory variables. Non-phosphate industrial energy sales are modeled using the U.S. industrial production index for manufacturing (excluding motor vehicles), the real price of electricity to the industrial class, and the average number of sales month billing days. The particular industrial production index used in this equation best characterizes the industry make-up of the FPC service area 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 firm 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 to 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 the 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 supplied 150 MW of stratified peaking demand. The contract amount increases to 300 MW in 2001 and 2002. FPC is not projecting to serve this load 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 an intention to not renew their contract.

The methodology for projecting MWh energy usage for the partial requirements (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 buying "spot" energy in the wholesale market if it is cheaper than the energy under the FPC capacity contract. 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. Beginning in late 1999, the City of Tallahassee sold back its ownership share of the Crystal River 3 nuclear plant to FPC. It replaced this capacity with a long-term contract for 11.4 MW with an expected high load factor.

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 new 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 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 had no utility-induced conservation or load control ever taken place. The value of constructing such a "clean" series enables the forecaster to observe and correlate the underlying trend in retail peak demand 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 to which month the peak occurred. The projections become the potential retail demand projection for the month 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 have been filed with the Florida Public Service 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 Seminole Electric Cooperative, Incorporated, the Florida Municipal Power Agency, and other electric distribution companies. The SECI supplemental demand projection is based on their forecast of their service area within the FPC control area. The level of MW to be served by FPC is dependent upon the amount of resources SECI supplies to itself or contracts with others. An assumption has been made that beyond the last year of committed capacity declaration (five years out) 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.

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CONSERVATION

In October 1999, the FPSC established new conservation goals for FPC that span the ten-year period from 2000 through 2009 (in Docket 971007-EG, Order No. PSC-99-1942-FOF-EG). As required by Rule 25-17.0021(4), Florida Administrative Code, FPC then submitted for Commission approval a new DSM Plan that was specifically designed to meet the new conservation goals. FPC's DSM Plan was subsequently approved by the Commission on April 17, 2000 (in Docket 991789-EG, Order No. PSC-00-750-PAA-EG). The following tables present FPC's historical DSM performance by showing the Commission approved conservation goal as well as the conservation savings actually achieved through FPC's DSM programs for the first reporting year of 2000.

Historical Residential Conservation Savings Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	Goal	Achieved	Goal	Achieved	Goal	Achieved
2000	10	17	30	35	15	21

Historical Commercial/Industrial Conservation Savings Goals and Achievements

	Cumulative Summer MW		Cumulative Winter MW		Cumulative GWh Energy	
Year	Goal	Achieved	Goal	Achieved	Goal	Achieved
2000	4	12	4	12	2	6

The forecasts contained in this Ten-Year Site Plan document are based on FPC's DSM Plan and, therefore, appropriately reflect the level of DSM savings required to meet the Commission-established conservation goals. FPC's DSM Plan consists of five 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 four types of energy audits: Level 1 - customer-completed mail-in audit; Level 2 - free walk-through audit; Level 3 - paid walk-through audit; and Level 4 - home energy rating. 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 increase energy efficiency for existing residential homes. It combines efficiency improvements to the thermal envelope with upgraded electric appliances. The program provides incentives for attic insulation upgrades, duct testing and repair, 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 dwellings combined with improved environmental comfort. The program provides education and information to the design and building community on energy efficient equipment and construction. It also facilitates the design and construction of energy efficient homes by working directly with the builders to comply with program requirements. The program provides incentives to the builder for high efficiency electric heat pumps, heat recovery units and dedicated 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.

Low Income Weatherization Assistance Program

This umbrella program seeks to improve energy efficiency for low-income customers in existing residential dwellings. It combines efficiency improvements to the thermal envelope with upgraded electric appliance. The program provides incentives for attic insulation upgrades, duct testing and repair, reduced air infiltration, water heater wrap, HVAC maintenance, high efficiency heat pumps, heat recovery units, and dedicated heat pump water heaters.

Residential Energy Management Program

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

Commercial/Industrial (C/I) Programs

Business Energy Check Program

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

Better Business Program

This is the umbrella efficiency program for existing commercial and industrial customers. The program provides customers with information, education, and advice on energy-related issues and incentives on efficiency measures that are cost-effective to FPC and its customers. The Better Business Program promotes energy efficient heating, ventilation, air conditioning (HVAC), motors, and 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, and heat recovery units.

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. As described in FPC's DSM Plan, this program is currently closed to new participants.

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, FPC has implemented 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

CHAPTER 3 Forecast of FACILITIES REQUIREMENTS

RESOURCE PLANNING FORECAST

Overview of the Current Forecast

Supply-Side Resources: FPC has a summer total capacity resource of 9,243 MW, as shown in Table 3.1. This capacity resource includes utility purchased power (469 MW), non-utility purchased power (831 MW), combustion turbine (2,607 MW), nuclear (765 MW), fossil steam (3,882 MW) and combined cycle plants (689 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 2001 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 projected program transitions which are expected to commence upon approval of FPC's recent program filings.

Capacity and Demand Forecast: FPC's forecasts of capacity and demand for the projected summer and winter peaks are shown on Schedules 7.1 and 7.2, respectively. FPC's forecasts of capacity and demand are 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 2,132 MW of proposed new capacity additions over the next ten years. As identified in Schedule 8, FPC's next planned need is a 495 MW (summer) 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. The bids were evaluated on the basis of location, price, reliability and other factors. FPC's self-build option for Hines Unit 2 was determined to be the most cost-effective alternative (FPSC Docket No. 001064-EI, Order No. PSC-01-0029-FOF-EI, Issued January 5, 2001). Hines Unit 2 will use essentially the same combined cycle technology as Hines Unit 1.

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, together with a new combustion turbine at FPC's existing DeBary site with a proposed in-service date of 2006, 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 options available to FPC to ensure compliance with these important environmental requirements. Status reports and specifications for new generation facilities are included in Schedule 9.

TABLE 3.1

FLORIDA POWER CORPORATION
TOTAL CAPACITY RESOURCE
POWER PLANTS AND PURCHASED POWER CONTRACTS
AS OF DECEMBER 31, 2000

Plants	Number Of Units	Net Dependable Capability MW Summer
Nuclear Steam		
Crystal River	1	765 *
Fossil Steam		
Crystal River	4	2,302
Anclote	2	993
Paul L. Bartow	3	444
Suwannee River	3	143
Total Fossil Steam	12	3,882
Combined Cycle		
Hines Energy Complex	1	482
Tiger Bay	1	207
Total Combined Cycle	2	689
Combustion Turbine		
DeBary	10	667
Intercession City	14	1,029
Bayboro	4	184
Bartow	4	187
Suwannee	3	164
Turner	4	154
Higgins	4	122
Avon Park	2	52
University of Florida	1	35
Rio Pinar	1	13
Total Combustion Turbine	47	2,607
Total Units	62	
Total Net Generating Capability		**7,943**

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

Plants	Number Of Units	Net Dependable Capability MW Summer
Purchased Power		
Qualifying Facilities	15	831
Investor Owned Utilities	2	469
TOTAL CAPACITY RESOURCE		**9,243**

TABLE 3.2

**FLORIDA POWER CORPORATION
QUALIFYING FACILITY GENERATION CONTRACTS
AS OF DECEMBER 31, 2000**

Facility Name	Firm Capacity (MW)
Bay County Resource Recovery	11.0
Cargill	15.0
CFR-Biogen (Orange Cogen)	74.0
Dade County Resource Recovery	43.0
El Dorado	114.2
Lake Cogen	110.0
Lake County Resource Recovery	12.8
LFC Jefferson	8.5
LFC Madison	8.5
Mulberry	79.2
Orlando Cogen	79.2
Pasco Cogen	109.0
Pasco County Resource Recovery	23.0
Pinellas County Resource Recovery 1	40.0
Pinellas County Resource Recovery 2	14.8
Ridge Generating Station	39.6
Royster	30.8
Timber Energy 1	12.8
US Agrichem	5.6
TOTAL	**831.0**

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
2001	7,800	469	50	831	9,050	7,768	1,282	16 5%	0	1,282	16.5%
2002	7,800	469	50	818	9,037	7,476	1,561	20.9%	0	1,561	20.9%
2003	7,800	469	50	818	9,037	7,388	1,650	22.3%	0	1,650	22.3%
2004	8,152	469	50	818	9,389	7,538	1,851	24.6%	0	1,851	24.6%
2005	8,152	479	50	818	9,399	7,691	1,708	22.2%	0	1,708	22.2%
2006	8,512	479	50	818	9,759	7,902	1,857	23.5%	0	1,857	23.5%
2007	8,586	479	0	813	9,878	8,116	1,762	21.7%	0	1,762	21.7%
2008	9,081	479	0	798	10,358	8,325	2,033	24.4%	0	2,033	24.4%
2009	9,081	479	0	689	10,249	8,528	1,721	20.2%	0	1,721	20.2%
2010	9,576	479	0	658	10,713	8,749	1,964	22.4%	0	1,964	22.4%

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
2001 / 02	8,574	469	50	831	9,824	8,303	1,521	18 3%	0	1,521	18.3%
2002 / 03	8,574	469	50	818	9,811	8,231	1,580	19 2%	0	1,580	19.2%
2003 / 04	8,995	469	50	818	10,232	8,380	1,853	22.1%	0	1,853	22.1%
2004 / 05	8,995	479	50	818	10,242	8,534	1,708	20.0%	0	1,708	20.0%
2005 / 06	9,424	479	50	818	10,671	8,745	1,926	22 0%	0	1,926	22.0%
2006 / 07	9,510	479	50	813	10,752	8,958	1,793	20 0%	0	1,793	20.0%
2007 / 08	10,089	479	0	798	11,366	9,164	2,202	24 0%	0	2,202	24.0%
2008 / 09	10,089	479	0	689	11,257	9,369	1,888	20 2%	0	1,888	20 2%
2009 / 10	10,668	479	0	658	11,805	9,580	2,225	23 2%	0	2,225	23 2%
2010 / 11	10,668	479	0	658	11,805	9,818	1,986	20.2%	0	1,986	20.2%

FLORIDA POWER CORPORATION

SCHEDULE 8

PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

AS OF JANUARY 1, 2001 THROUGH DECEMBER 31, 2010

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
								CONST.	COM'L IN-	EXPECTED	GEN. MAX.	NET CAPABILITY			
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		START	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER		
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	MO. / YEAR	MO. / YEAR	MO. / YEAR	KW	MW	MW	STATUS	NOTES
HINES ENERGY COMPLEX	2	POLK	CC	NG	DFO	PL	TK	3/2002	11/2003			495	567	T	
SUWANNEE RIVER	1	SUWANNEE	ST	RFO	NG	TK	PL			12/2003	34,500	32	33	RT	1
SUWANNEE RIVER	2	SUWANNEE	ST	RFO	NG	TK	PL			12/2003	37,500	31	32	RT	1
SUWANNEE RIVER	3	SUWANNEE	ST	RFO	NG	TK	PL			12/2003	75,000	80	81	RT	1
HINES ENERGY COMPLEX	3	POLK	CC	NG	DFO	PL	TK	3/2004	11/2005			495	579	P	
HIGGINS	P1-2	PINELLAS	GT	NG	DFO	PL	TK			12/2005	67,580	54	64	RT	1
HIGGINS	P3-4	PINELLAS	GT	NG	DFO	PL	TK			12/2005	85 850	68	70	RT	1
RIO PINAR	P1	ORANGE	GT	DFO		TK				12/2005	19,290	13	16	RT	1
AVON PARK	P1	HIGHLANDS	GT	NG	DFO	PL	TK			12/2006	33,790	26	32	RT	1
AVON PARK	P2	HIGHLANDS	GT	DFO		TK				12/2006	33 790	26	32	RT	1
TURNER	P1-2	VOLUSIA	GT	DFO		TK				12/2006	38,580	26	32	RT	1
DEBARY	P11	VOLUSIA	GT	NG	DFO	PL	TK,RR	11/2005	11/2006			152	182	P	
HINES ENERGY COMPLEX	4	POLK	CC	NG	DFO	PL	TK	3/2006	11/2007			495	579	P	
HINES ENERGY COMPLEX	5	POLK	CC	NG	DFO	PL	TK	3/2008	11/2009			495	579	P	

NOTES :

1/ 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

AS OF JANUARY 1, 2001

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #2
(2)	Capacity	
	a. Summer:	495
	b. Winter:	567
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	3/2002
	b. Commercial in-service date:	11/2003 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL 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:	REGULATORY APPROVAL RECEIVED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	2.92 %
	b. Forced Outage Factor (FOF):	3.50 %
	c. Equivalent Availability Factor (EAF):	91.00 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,306 BTU/kWh

FLORIDA POWER CORPORATION

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2001

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #3
(2)	Capacity	
	a. Summer:	495
	b. Winter:	579
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	3/2004
	b. Commercial in-service date:	11/2005 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL 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	
	a. Planned Outage Factor (POF):	5.75 %
	b. Forced Outage Factor (FOF):	5.00 %
	c. Equivalent Availability Factor (EAF):	90.00 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,306 BTU/kWh

FLORIDA POWER CORPORATION

SCHEDULE 9

STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2001

(1)	Plant Name and Unit Number:	DEBARY P11
(2)	Capacity	
	a. Summer:	152
	b. Winter:	182
(3)	Technology Type:	COMBUSTION TURBINE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	11/2005
	b. Commercial in-service date:	11/2006 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL OIL
(6)	Air Pollution Control Strategy:	DRY LOW NOx COMBUSTION (NATURAL GAS) WATER INJECTION (DISTILLATE FUEL OIL)
(7)	Cooling Method:	AIR
(8)	Total Site Area:	2,210 ACRES
(9)	Construction Status:	PLANNED
(10)	Certification Status:	SITE PERMITTED
(11)	Status with Federal Agencies:	SITE PERMITTED
(12)	Projected Unit Performance Data	
	a. Planned Outage Factor (POF):	4.80 %
	b. Forced Outage Factor (FOF):	5.00 %
	c. Equivalent Availability Factor (EAF):	91.00 %
	d. Resulting Capacity Factor (%):	15.00 %
	e. Average Net Operating Heat Rate (ANOHR):	12,151 BTU/kWh

FLORIDA POWER CORPORATION

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2001

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #4
(2)	Capacity	
	a. Summer:	495
	b. Winter:	579
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	3/2006
	b. Commercial in-service date:	11/2007 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL 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	
	a. Planned Outage Factor (POF):	5.75 %
	b. Forced Outage Factor (FOF):	5.00 %
	c. Equivalent Availability Factor (EAF):	90.00 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. Average Net Operating Heat Rate (ANOHR):	7,306 BTU/kWh

FLORIDA POWER CORPORATION

SCHEDULE 9

STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES

AS OF JANUARY 1, 2001

(1)	Plant Name and Unit Number:	HINES ENERGY COMPLEX UNIT #5
(2)	Capacity	
	a. Summer:	495
	b. Winter:	579
(3)	Technology Type:	COMBINED CYCLE
(4)	Anticipated Construction Timing	
	a. Field construction start date:	3/2008
	b. Commercial in-service date:	11/2009 (EXPECTED)
(5)	Fuel	
	a. Primary fuel:	NATURAL GAS
	b. Alternate fuel:	DISTILLATE FUEL 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	
	a. Planned Outage Factor (POF):	5.75 %
	b. Forced Outage Factor (FOF):	5.00 %
	c. Equivalent Availability Factor (EAF):	90.00 %
	d. Resulting Capacity Factor (%):	50.00 %
	e. 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.

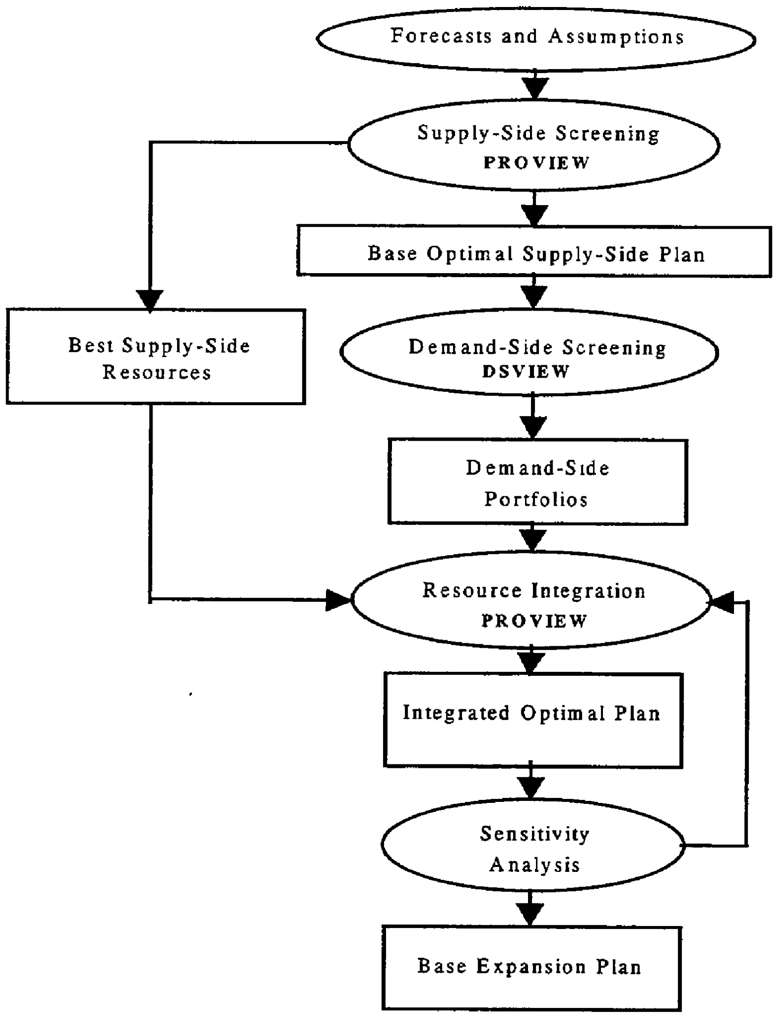


Figure 1: IRP Process Overview

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. 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 WEFA's *U.S. Economic Outlook, January 2001*. 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 WEFA's *U.S. Economic Outlook, January 2001*. 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. WEFA's *U.S. Economic Outlook, January 2001* 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. WEFA's *U.S. Economic Outlook, January 2001* 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 projected combined cycle expansion of the Hines Energy Complex (HEC) with Units 2 through 5, forecasted 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. 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. Also included in this TYSP is a combustion turbine addition at FPC's existing DeBary site, forecasted to be in service by November 2006.

Plan Sensitivities

Sensitivities to load, fuel and financial forecasts were analyzed against the base plan. The base plan of constructing combined cycle and combustion turbine 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 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, which assumes the current differential price of oil and gas to coal remains constant over time, indicated a potential shift toward pulverized coal and combustion turbine units. This current differential in oil and gas to coal prices, however, includes recent spikes in natural gas prices that historically have been of a short-term nature and, thus, are not expected to continue over the planning horizon. FPC will continue to monitor these fuel price relationships and watch for any signs of a long-term structural change.

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. The bids were evaluated on the basis of location, price, reliability and other factors. FPC's self-build option for Hines Unit 2 was determined to be the most cost-effective alternative (FPSC Docket No. 001064-EI, Order No. PSC-01-0029-FOF-EI, Issued January 5, 2001). Hines Unit 2 will use essentially the same combined cycle technology as Hines Unit 1.

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
2001-2010

LINE OWNERSHIP	TERMINALS	TERMINALS	LINE LENGTH CKT. MILES	COMMERCIAL IN-SERVICE DATE (MO/YR)	NOMINAL OPERATING VOLTAGE (kV)
FPC/OUC	RIO PINAR	STANTON	7	1/2001	230
FPC	HOLOPAW	RELIANT ENERGY, OSCEOLA	3	12/2001	230
FPC	HINES ENERGY COMPLEX	BARCOLA #2	3	5/2003	230
FPC/TECO	BARCOLA	PEBBLEDALE	1 *	5/2003	230
FPC	LAKE BRYAN	WINDERMERE #1	10 *	5/2005	230
FPC	LAKE BRYAN	WINDERMERE #2	10	5/2005	230
FPC	HINES ENERGY COMPLEX	WEST LAKE WALES #1	21	5/2005	230
FPC	INTERCESSION CITY	WEST LAKE WALES #1	30 *	5/2007	230
FPC	INTERCESSION CITY	WEST LAKE WALES #2	30	5/2007	230
FPC	PERRY	DRIFTON	35	5/2007	230
FPC	HIGGINS	GRIFFIN	44 **	5/2007	230
FPC	HINES ENERGY COMPLEX	WEST LAKE WALES #2	21	5/2009	230
FPC	INTERCESSION CITY	GIFFORD	10	5/2009	230
FPC	GIFFORD	AVALON	10	5/2009	230

* Rebuild existing circuit ** Upgrade to 230 kV

CHAPTER 4

ENVIRONMENTAL and LAND USE INFORMATION

CHAPTER 4 ENVIRONMENTAL and LAND USE INFORMATION

PREFERRED SITES

FPC's base expansion plan proposes new generation at the Hines Energy Complex (HEC) site in Polk County and the DeBary site in Volusia County. The HEC site is an existing site with the first additional combined cycle unit planned for November 2003. The DeBary site is an existing site with an additional combustion turbine unit planned for November 2006. The preferred sites of HEC and DeBary 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.

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 south of the City of Bartow, 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.

The site's initial preparation involved moving over 10 million cubic yards of soil and draining 4 billion gallons of water. Construction of the energy complex will recycle the land for a beneficial use and promote habitat restoration.

The Hines Energy Complex is visited by several species of wildlife; including alligators, bobcats, turtles and over 50 species of birds. The Hines site also contains a wildlife corridor, which creates a continuous connection between the Peace River and the Alafia River.

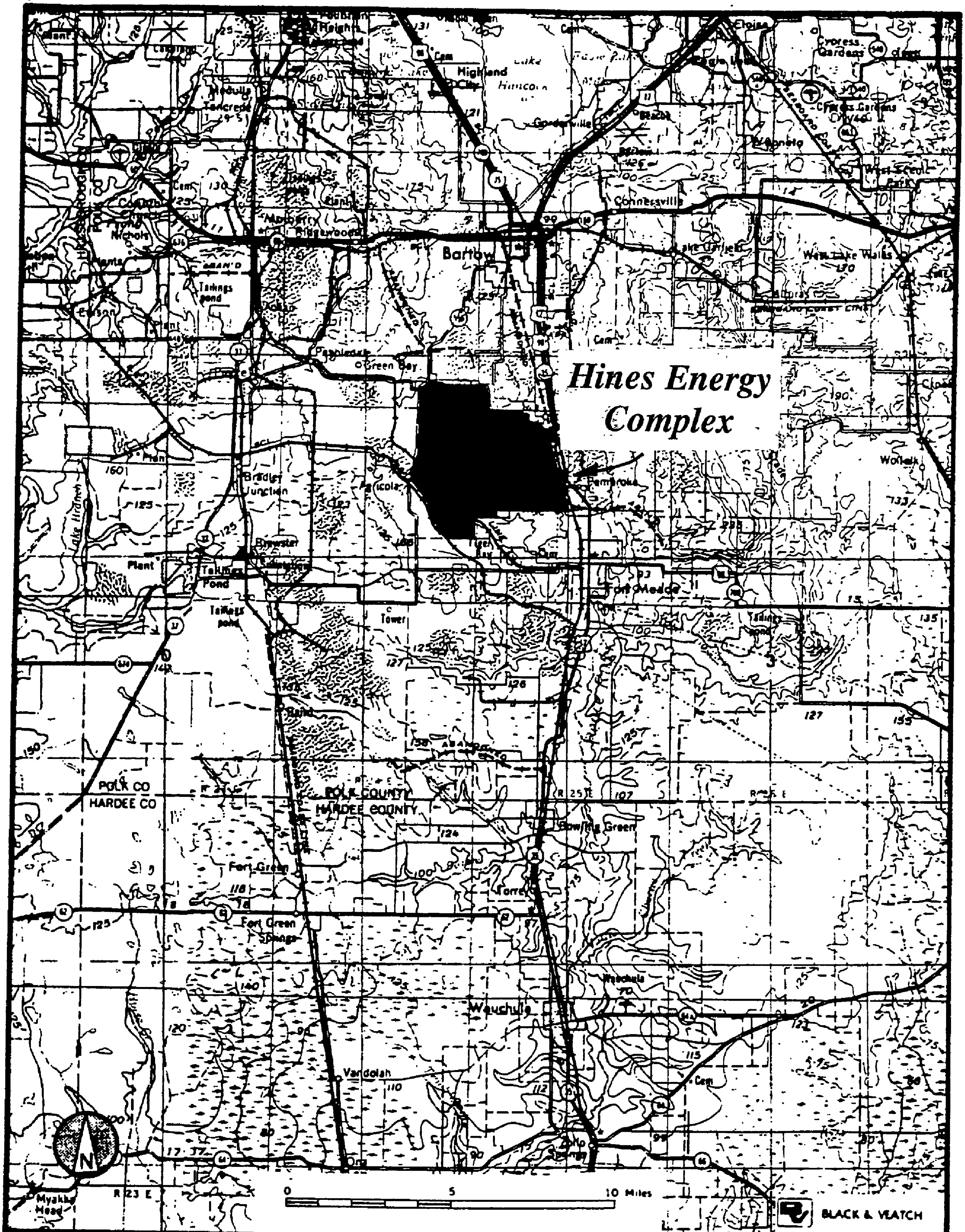
FPC has arranged for the City of Bartow to provide treated effluent for cooling pond make-up. The complex's cooling pond initially covers 722 acres with an eventual expansion to 2,500 acres.

The Hines Energy Complex is designed and permitted to be a zero discharge site. This means that there will be no discharges to surface waters either from the power plant facilities or from storm water runoff. Based on this design, storm water runoff from the site can be used as cooling pond make-up, minimizing groundwater withdrawals.

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 with a capacity of 495 MW summer and 567 MW winter, is an additional 230 kV circuit from the Hines Energy Complex to Barcola.



Hines Energy Complex (Polk County)

DEBARY SITE

DeBary was chosen as the preferred site for the installation of an additional combustion turbine peaking unit by November 2006. The site consists of 2,210 acres at the existing DeBary Power Plant Site in Volusia County (reference DWG IV-3), immediately west of the town of DeBary.

FPC's DeBary Plant, bordered on the west by the St. Johns River and on the north by Blue Springs State Park, is a haven to land and water animals. Manatees, attracted by the warmth of the springs, have made the local waters one of the major wintering spots for this endangered species. Deer find sanctuary in the wooded area, where raccoons, fox, possum and many other varieties of wildlife also live. When fire caused by lightning burned several acres of woodlands, FPC planted seedlings to bring back the natural state of the area.

Although part of the site has been cleared for the construction of existing facilities, most of it is characterized by upland and wetland forest vegetation. The DeBary Plant occupies only 25 acres of the total plant site. Total developed property covers less than 50 acres. The site is accessible by city streets, and there is railroad service.

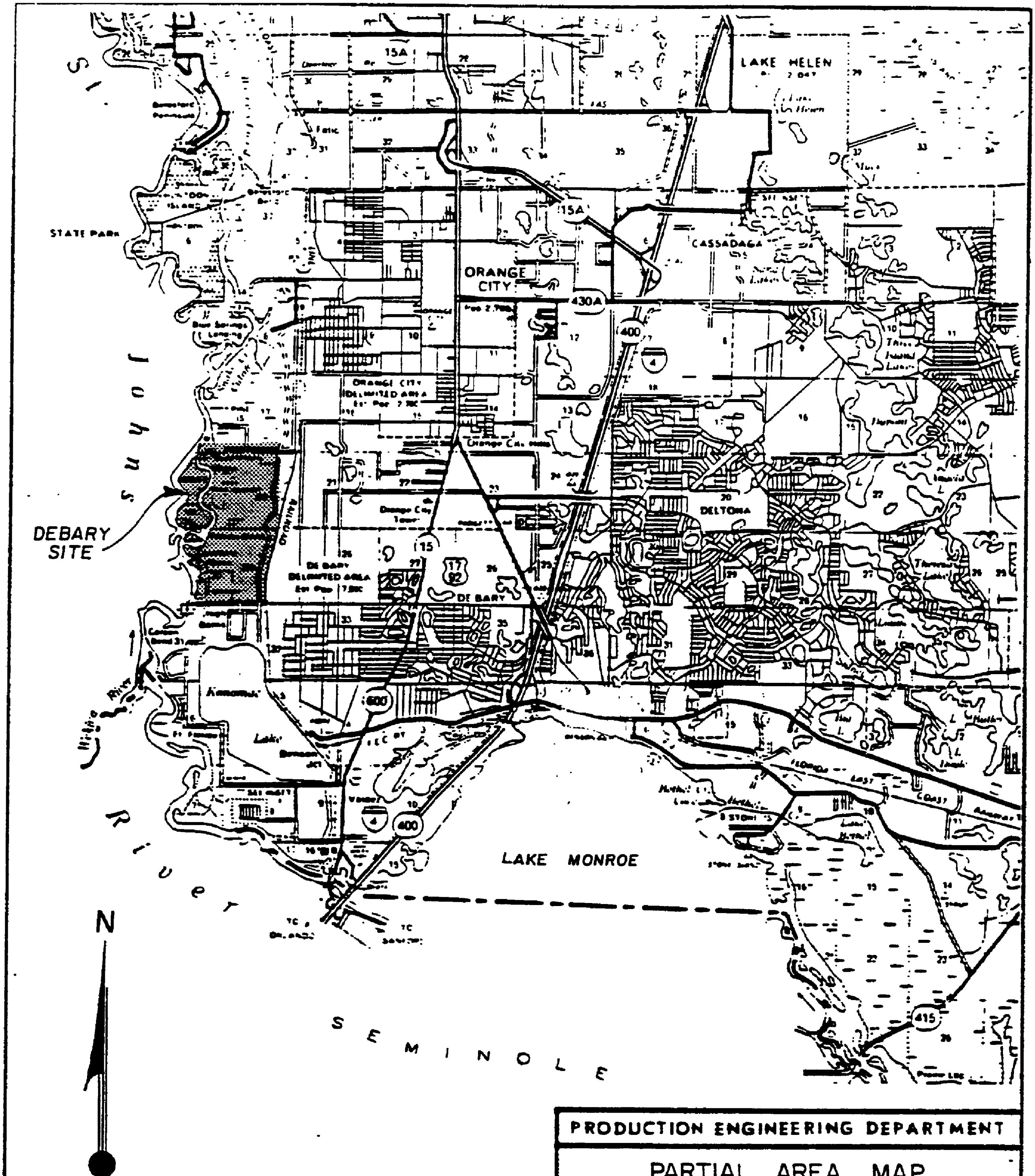
The DeBary Plant was built in the mid- 1970s. At that time, six combustion turbines were completed. In order to meet increasing customer demand for power, the DeBary Plant was expanded in 1992 with the addition of four new combustion turbines.

During construction activity in 1992, FPC's environmental engineers were on location to ensure that local wildlife was protected. This included carefully relocating a gopher tortoise to a safer habitat in an undisturbed area of the site.

At the DeBary Plant, state-of-the-art emission controls in the new combustion turbines greatly reduce environmental impact. Redundant spill containment provisions for both piping houses and wastewater/fuel tanks protect against fuel spills.

The seasonal ratings for the DeBary combustion turbine addition are projected to be 152 MW summer and 182 MW winter. The environmental impact on the site from this additional capacity 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 this additional combustion turbine peaking unit.



PRODUCTION ENGINEERING DEPARTMENT

PARTIAL AREA MAP
VOLUSIA CO. FL.

DRAWN BY	DATE	SCALE
B.Whiteside	2-21-86	
CHECKED BY	DATE	DISCIPLINE
APPROVED BY	DATE	PLANT/UNIT
DATA PROCESS NO.		SHEET
DWG. NO.	IV - 3	

Florida Power Corporation

NO.	DESCRIPTION

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