FPL

ORIGINAL

P.O. Box 029100, Miami, FL 33102-9100

April 2, 2007

VIA HAND DELIVERY

Ms. Ann Cole
Division of the Commission Clerk and
Administrative Services
Florida Public Service Commission
Betty Easley Conference Center
2540 Shumard Oak Boulevard, Room 110
Tallahassee, FL 32399-0850

Re: 2007 – 2016 Ten Year Site Plan 070000

Dear Ms. Cole:

In accordance with Chapter 186 (Section 186.801 – Ten Year Plans) of the Florida Statues, enclosed for filing are twenty-five (25) copies of Florida Power & Light Company's 2007 – 2016 Ten Year Power Plant Site Plan.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Sabrina Spradley
Senior Regulatory Affairs Analyst
(305) 552-4416

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Ten Year Power Plant Site Plan
2007 – 2016

FPL

FPL

Ten Year Power Plant Site Plan

2007-2016

Submitted To:

Florida Public
Service Commission

Miami, Florida
April, 2007

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Overview of the Document

Chapter 186, Florida Statutes, requires that each electric utility in the State of Florida with a minimum existing generating capacity of 250 megawatts (MW) must annually submit a Ten Year Power Plant Site Plan. This plan includes an estimate of the utility's electric power generating needs, a projection of how those needs will be met, and a disclosure of information pertaining to the utility's preferred and potential power plant sites. This information is compiled and presented in accordance with rules 25-22.070, 25-22.071, and 25-22.072, Florida Administrative Code (FAC).

This Ten Year Power Plant Site Plan (Site Plan) document is based on Florida Power & Light Company's (FPL) integrated resource planning (IRP) analyses that were carried out in 2006 and that were on-going in the first quarter of 2007. The forecasted information presented in this plan addresses the 2007–2016 time frame.

Site Plans are long-term planning documents and should be viewed in this context. A Site Plan contains tentative information, especially for the latter years of the ten-year time horizon, and is subject to change at the discretion of the utility. Much of the data submitted is preliminary in nature and is presented in a general manner. Specific and detailed data will be submitted as part of the Florida site certification process, or through other proceedings and filings.

This document is organized in the following manner:

Chapter I – Description of Existing Resources

This chapter provides an overview of FPL's current generating facilities. Also included is information on other FPL resources including purchased power, demand side management, and FPL's transmission system.

Chapter II – Forecast of Electric Power Demand

FPL's load forecasting methodology, and its forecast of seasonal peaks and annual energy usage, is presented in Chapter II.

Chapter III – Projection of Incremental Resource Additions

This chapter discusses FPL's integrated resource planning (IRP) process and outlines FPL's projected resource additions, especially new power plants, as determined in FPL's IRP work in 2006 and early 2007.

Chapter IV – Environmental and Land Use Information

This chapter discusses environmental information as well as preferred and potential site locations for additional electric generation facilities.

Chapter V – Other Planning Assumptions and Information

This chapter addresses twelve "discussion items" which pertain to additional specific information that is to be included in a Site Plan filing.

FPL
List of Abbreviations
Used in FPL Forms

Reference	*Abbreviation*	*Definition*
Unit Type	BIT	Bituminous Coal
	CC	Combined Cycle
	CT	Combustion Turbine
	GT	Gas Turbine
	IC	Internal Combustion
	NP	Nuclear Power
	ST	Steam Unit
Fuel Type	UR	Uranium
	BIT	Bituminous Coal
	FO2	#1, #2 or Kerosene Oil (Distillate)
	FO6	#4,#5,#6 Oil (Heavy)
	NG	Natural Gas
	No	None
	Pet	Petroleum Coke
Fuel Transportation	No	None
	PL	Pipeline
	RR	Railroad
	TK	Truck
	WA	Water
Unit/Site Status	OT	Other
	P	Planned Unit
	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

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Executive Summary

Florida Power & Light Company's (FPL) 2007 Ten Year Power Plant Site Plan (Site Plan) addresses FPL's plans to increase its electric generation capability (owned or purchased) as part of its efforts to meet its projected incremental resource needs for the 2007-2016 time period.

In response to continued strong population growth, FPL's total generation capability is required to increase significantly during the 2007-2016 time period as shown in Table ES.1. The table reflects FPL's planned changes to existing generation units (due to unit overhauls, etc.), projected changes in the delivered amounts of purchased power, and the planned additions of new generating units. Although not explicitly shown in this table, FPL's demand side management (DSM) resources are included. These resources incorporate the approved DSM Goals (that are assumed to be implemented on schedule) and approximately 684 MW of additional DSM that FPL projects will be implemented through 2016. This represents approximately 1,486 MW of cost-effective DSM beyond the significant amount of DSM achieved by FPL through 2006. After accounting for FPL's 20% reserve margin requirement, these 1,486 MW of additional DSM will avoid the need for approximately 1,780 MW of additional generating capacity that otherwise would be needed.

In 2007, FPL will be adding a new 1,144 MW (Summer) combined cycle (CC) unit, Turkey Point Unit #5, at its existing Turkey Point plant site. In 2009, and again in 2010, FPL will be adding one 1,219 MW (Summer) CC unit in western Palm Beach County. The site is named the West County Energy Center (WCEC) and these units are identified as West County Energy Center Units #1 and #2 (WCEC #1 and # 2). All three of these CC units were approved by the Florida Public Service Commission (FPSC). The Turkey Point unit was approved by the FPSC in June 2004 and the two WCEC units were approved in June 2006. FPL's applications for site certification under the Florida Electric Power Plant Siting Act were approved by the Governor and Siting Board in February 2005 for the Turkey Point unit and in December 2006 for the WCEC units. The addition of these three highly efficient units will meet FPL's capacity needs through 2010.

FPL plans to address its capacity needs in years 2013 and 2014 with two new ultra-supercritical pulverized coal (USCPC) units. For planning purposes, these units are projected to be in service by June 2013 and June 2014, respectively. However, FPL intends to bring these advanced technology coal units in service as quickly as possible in order to maintain system fuel diversity and reduce system fuel costs. It is likely that the in-service date of the first USCPC unit will occur in late 2012 or early 2013 and likewise, that the in-service date of the second USCPC unit will likely occur in late 2013 or early 2014. The new units will be located in FPL Glades Power Park

(FGPP) located in Glades County and are identified as FGPP Units #1 and #2. FPL filed a petition with the FPSC for a determination of need for the two FGPP coal units on February 1, 2007 and a decision is expected from the FPSC by July 2007.

In addition to the capacity needs to be met by the addition of Turkey Point Unit #5, WCEC Units #1 and #2, and FGPP Units #1 and #2, FPL currently projects capacity needs in 2011 (167 MW), in 2012 (777 MW), in 2013 (214 MW), in 2015 (323 MW), and in 2016 (**1,327** MW). These capacity needs will be met by a combination of resources including: additional cost-effective DSM, power purchases, enhancements to existing generating units, and new power plant construction.[1] At the time this document is filed, no decision is needed regarding how these additional capacity needs will be met. FPL will continue to analyze alternatives that could be implemented to meet its projected capacity needs as part of its on-going resource planning work in 2007 and subsequent years. This future analysis work will take into account a number of factors including: the outcome of FPL's petition for need determination and site certification for FGPP Units #1 and #2, changes in forecasts of load, fuel costs, and environmental compliance costs to the extent reasonably ascertainable, and changes in both supply and demand side options.

For purposes of this planning document, FPL anticipates that the remaining projected capacity needs for the years 2011, 2012, and 2013 will be met by short-term firm power purchases of 167

MW, 800 MW, and 200 MW, respectively. Power purchases of these magnitudes are currently projected to be available for these years. FPL also projects, for purposes of this planning document, the addition of a new 1,219 MW CC unit similar to the WCEC CC units in 2015. A specific site for this potential addition has not yet been determined and the unit is referred to in this document as South Florida CC #1. The addition of this unit, or an equivalent amount of capacity, would meet FPL's capacity needs in 2015 and 2016.

FPL's ongoing resource planning efforts will continue to be influenced by two recurrent issues. Those two issues are: (1) maintaining fuel diversity in the FPL system; and (2) maintaining a balance between load and generating capacity in Southeast Florida. In regard to the first issue, the addition of the FGPP Units #1 and #2 coal units will maintain fuel diversity on FPL's system by maintaining the contribution of coal generation and limiting the increase in reliance on natural gas. FPL is also actively investigating the potential for renewable energy in Florida to contribute to system fuel diversity.

[1] Repowering of existing FPL sites remains an alternative to new construction and FPL will continue to examine this option.

Also in regard to the first issue, FPL is undertaking steps to investigate the next generation of nuclear generation facilities. Although the feasible in-service date for new nuclear generation is beyond the planning horizon of this Site Plan, FPL is actively pursuing the possibility of new nuclear generation. In regard to the second issue, the addition of Turkey Point Unit #5, and WCEC Units #1 and #2, will help maintain a balance of generation located in the Southeast area with that region's load, and contribute to overall system reliability.

Table ES.1: Projected Capacity Changes and Reserve Margins for FPL [1]

Projected Capacity Changes and Reserve Margins for FPL [1]					
		Net Capacity Changes (MW)		FPL Reserve Margin (%)	
		Winter [2]	Summer [3]	Winter	Summer
2007	Turkey Point Unit #5 [5]	---	1,144	26.4%	22.6%
	Changes to Existing Units	16	(2)		
	Changes to Existing Purchases [4]	657	(387)		
2008	Turkey Point Unit #5 [5]	1,181	---	26.5%	20.5%
	Changes to Existing Units	28	27		
	Changes to Existing Purchases [4]	(836)	---		
2009	West County Unit #1 [5]	---	1,219	22.8%	20.9%
	Changes to Existing Units	28	1		
	Changes to Existing Purchases [4]	(326)	(482)		
2010	West County Unit #1 [5]	1,335	---	24.3%	22.1%
	West County Unit #2 [5]	---	1,219		
	Changes to Existing Purchases [4]	(512)	(405)		
2011	West County Unit #2 [5]	1,335	---	27.7%	20.0%
	Power Purchase in 2011		167		
	Changes to Existing Purchases [4]	(94)	(45)		
2012	Changes to Existing Purchases [4]	---	(156)	25.5%	20.1%
	Changes to Power Purchase in 2011	---	(167)		
	Power Purchase in 2012	---	800		
2013	FGPP Unit # 1 [5]	---	980	22.6%	19.9%
	Changes to Power Purchase in 2012	---	(800)		
	Power Purchase in 2013	---	200		
	Changes to Existing Purchases [4]	(180)	---		
2014	FGPP Unit # 1 [5]	990	---	24.9%	21.3%
	FGPP Unit # 2 [5]	---	980		
	Changes to Power Purchase in 2013	---	(200)		
2015	FGPP Unit # 2 [5]	990	---	26.1%	23.7%
	South Florida CC #1 [5]	---	1,219		
2016	South Florida CC #1 [5]	1,335	---	27.1%	19.6%
	Changes to Existing Purchases [4]	(390)	(381)		
	TOTALS =	**5,557**	**4,931**		

(1) Additional information about these resulting reserve margins and capacity changes are found on Schedules 7 & 8 respectively.
(2) Winter values are values for January of year shown.
(3) Summer values are values for August of year shown.
(4) These are firm capacity and energy contracts with QF, Utilities and other purchases. See Table I.B.1 and Table I.B.2 for more details.
(5) All new unit additions are scheduled to be in-service in June of the year shown. Consequently, they are included in the Summer reserve margin calculation for the in-service year and in both the Summer and Winter reserve margin calculations for subsequent years.

CHAPTER I

Description of Existing Resources

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I. Description of Existing Resources

FPL's service area contains approximately 27,650 square miles and has a population of approximately 8.6 million people. FPL served an average of 4,409,563 customer accounts in thirty-five counties during 2006. These customers were served from a variety of resources including: FPL-owned fossil and nuclear generating units, non-utility owned generation, demand side management, and interchange/purchased power.

I.A. FPL-Owned Resources

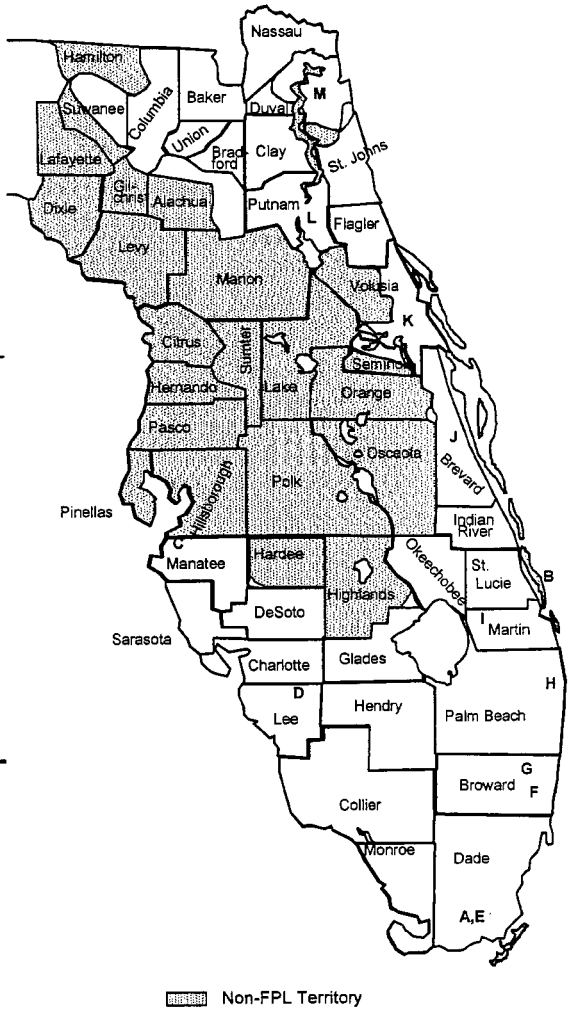
The existing FPL generating resources are located at fourteen generating sites distributed geographically around its service territory and also include partial ownership of one unit located in Georgia and two units located in Jacksonville, FL. The current generating facilities consist of four nuclear steam units, three coal units, eleven combined cycle units, seventeen fossil steam units, forty eight combustion gas turbines, one simple cycle combustion turbine, and five diesel units. The location of these units is shown on Figure I.A.1 and in Table I.A.1.

FPL's bulk transmission system is comprised of 6,620 circuit miles of transmission lines. Integration of the generation, transmission, and distribution system is achieved through FPL's 542 substations in Florida.

The existing FPL system, including generating plants, major transmission stations, and transmission lines, is shown on Figure I.A.2. In addition, Figure I.A.3 shows FPL's interconnection ties with other utilities.

FPL Generating Resources by Location

Location/ Map Key	Plant Name	Number of Units	Summer MW
A	Turkey Point	4	2,174
B	St. Lucie *	2	1,553
C	Manatee	3	2,742
D	Fort Myers	2	1,764
E	Cutler	2	205
F	Lauderdale	2	872
G	Port Everglades	4	1,219
H	Riviera	2	565
I	Martin	5	3,738
J	Cape Canaveral	2	792
K	Sanford	3	2,044
L	Putnam	2	498
M	SJRPP **	2	250
	Scherer ***	1	646
	Gas Turbines	48	1,908
	Internal Combustion Turbines	5	12
	FPL Generation =	**89**	**20,981**



* Represents FPL's ownership share: St Lucie nuclear: 100% unit 1, 85% unit 2: St. Johns River: 20% of two units.

** SJRPP = St. John's River Power Park

*** The Scherer unit is located in Georgia and is not shown on this map.

Figure I.A.1: Capacity Resources by Location (as of December 31, 2006)

Table I.A.1: Capacity Resource by Unit Type (as of December 31, 2006)

Unit Type/ Plant Name	Location	Number of Units	Fuel	Summer MW
Combined-Cycle				
Lauderdale	Dania, FL	2	Gas/Oil	872
Martin	Indiantown,FL	2	Gas	956
Martin	Indiantown,FL	1	Gas/Oil	1,104
Sanford	Lake Monroe, FL	2	Gas	1,906
Putnam	Palatka, FL	2	Gas/Oil	498
Fort Myers	Fort Myers, FL	1	Gas	1,440
Manatee	Parrish,FL	1	Gas	1,104
Total Combined Cycle		11		7,879
Combustion Turbines				
Fort Myers *	Fort Myers, FL	1	Gas/Oil	324
Total Combustion Turbines		1		324
Nuclear				
Turkey Point	Florida City, FL	2	Nuclear	1,386
St. Lucie **	Hutchinson Island, FL	2	Nuclear	1,553
Total Nuclear		4		2,939
Coal Steam				
SJRPP ***	Jacksonville, FL	2	Coal	250
Scherer	Monroe County, Ga	1	Coal	646
Total Coal Steam		3		896
Oil/Gas Steam				
Cape Canaveral	Cocoa, FL	2	Oil/Gas	792
Cutler	Miami, FL	2	Gas	205
Manatee	Parrish, FL	2	Oil/Gas	1,638
Martin	Indiantown,FL	2	Oil/Gas	1,678
Port Everglades	Port Everglades, FL	4	Oil/Gas	1,219
Riviera	Riviera Beach, FL	2	Oil/Gas	565
Sanford	Lake Monroe, FL	1	Oil/Gas	138
Turkey Point	Florida City, FL	2	Oil/Gas	788
Total Oil/Gas Steam		17		7,023
Gas Turbines(GT)/Diesels(IC)				
Lauderdale (GT)	Dania, FL	24	Gas/Oil	840
Port Everglades (GT)	Port Everglades, FL	12	Gas/Oil	420
Fort Myers (GT)	Fort Myers, FL	12	Oil	648
Turkey Point (IC)	Florida City, FL	5	Oil	12
Total Gas Turbines/Diesels		53		1,920
Total Units:		89		
Total Net Generating Capability:				20,981

* Each unit consists of two combustion turbines totaling approximately 300 MW.

** Total capability of each unit is 853/839 MW. FPL's ownership share of St. Lucie 1 and 2 is 100% and 85% respectively. Capabilities shown represent FPL's output share from each of the units (approx. 92.5% and exclude the Orlando Utilities Commission (OUC) and Florida Municipal Power Agency (FMPA) combined portion of approximately 7.44776% per unit.

*** Represents FPL's ownership share: SJRPP coal: 20% of two units

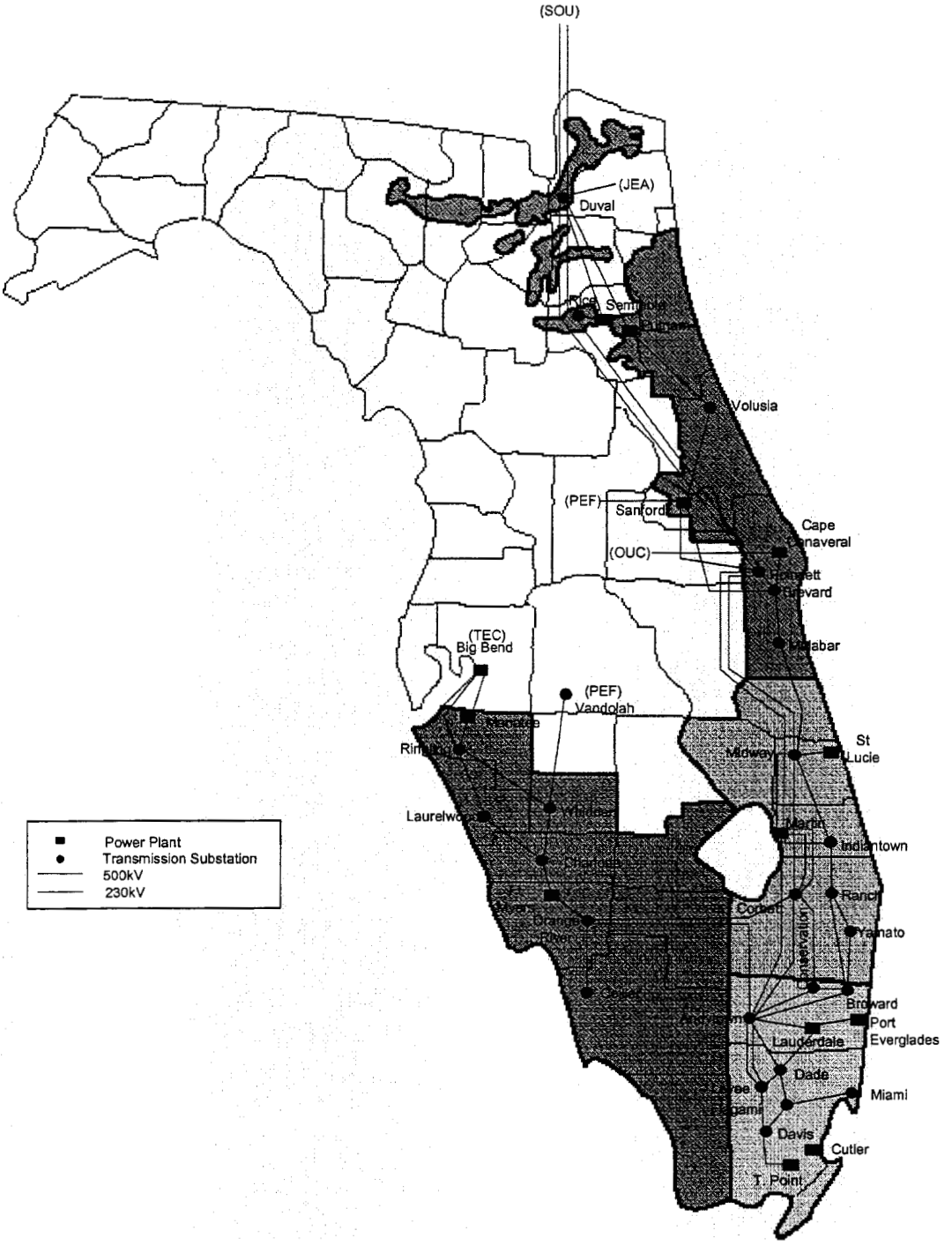


Figure I.A.2: FPL Substation and Transmission System Configuration

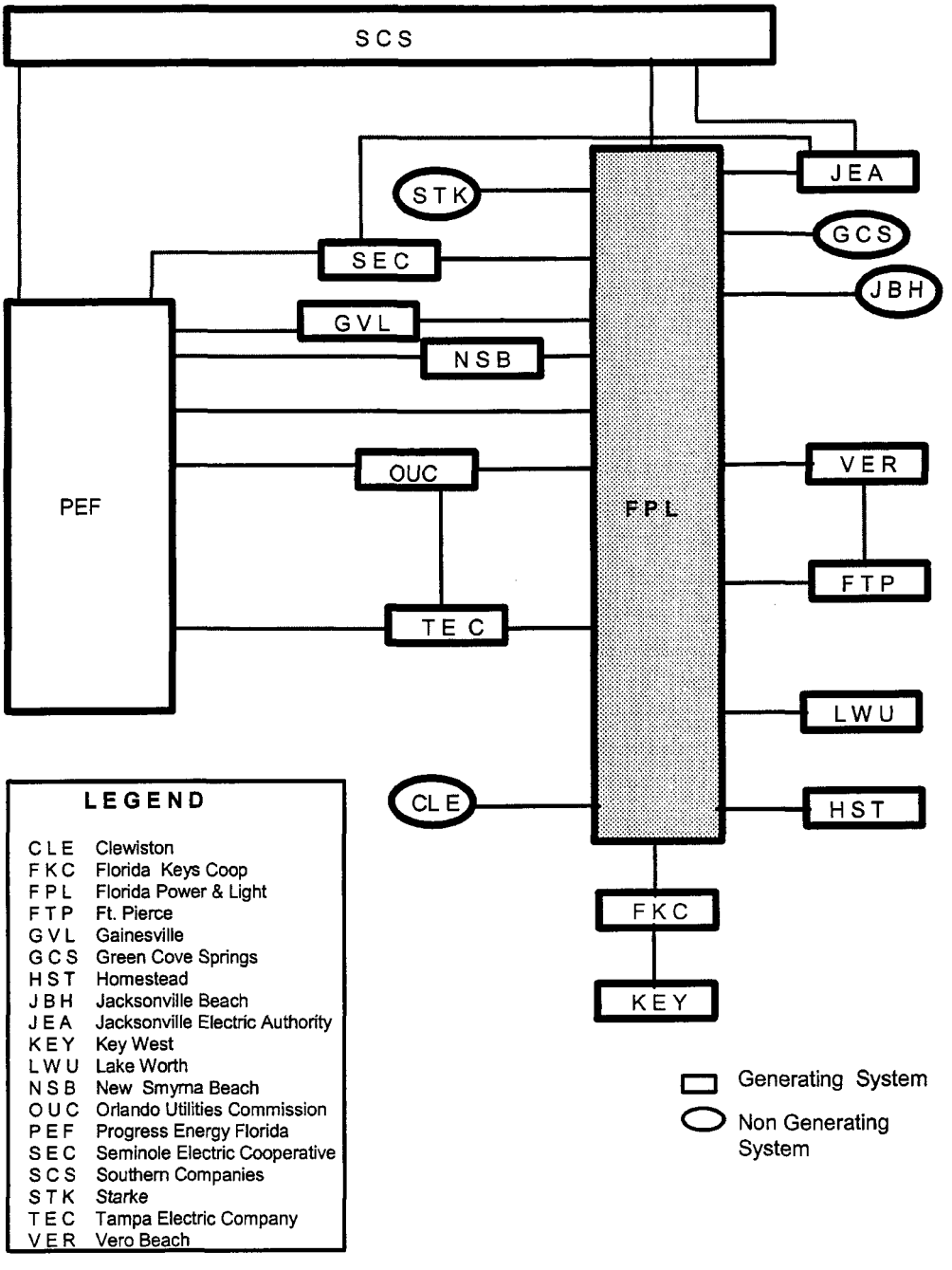


Figure I.A.3: FPL Interconnection Diagram

I.B Firm Capacity Power Purchases

Purchases from Qualifying Facilities (QF):

Firm capacity power purchases are an important part of FPL's resource mix. FPL currently has contracts with five qualifying facilities; i.e., cogeneration/small power production facilities, to purchase firm capacity and energy.

A cogeneration facility is one which simultaneously produces electrical and thermal energy, with the thermal energy (e.g., steam) being used for industrial, commercial, or cooling and heating purposes. A small power production facility is one which does not exceed 80 MW (unless it is exempted from this size limitation by the Solar, Wind, Waste, and Geothermal Power Production Incentives Act of 1990) and uses as its primary energy source (at least 50%) solar, wind, waste, geothermal, or other renewable resources.

Purchases from Utilities:

FPL has a Unit Power Sales (UPS) contract to purchase 931 MW, with a minimum of 381 MW, of coal-fired generation from the Southern Company (Southern). through May, 2010. An additional contract with Southern will result in FPL receiving 930 MW from June 2010 through the end of 2015. This capacity will be supplied by Southern from a mix of gas-fired and coal-fired units. For planning purposes, FPL is projecting a subsequent purchase of the same amount of MW from north of Florida starting in 2016.

In addition, FPL has contracts with the Jacksonville Electric Authority (JEA) for the purchase of 381 MW (Summer) and 390 MW (Winter) of coal-fired generation from the St. John's River Power Park (SJRPP) Units No. 1 and No. 2. (FPL also has ownership interest in these units. The ownership amount is reflected in FPL's installed capacity shown on Figure I.A.1, in Table I.A.1, and on Schedule 1.)

Other Purchases:

FPL has other firm capacity purchase contracts through 2009 with a variety of Non-QF suppliers. These purchases are generally near-term in nature. Table I.B.1 and I.B.2 present the Summer and Winter MW, respectively, resulting from all firm purchased power contracts discussed above through the year 2016 as well as other purchases in 2011 – 2013 assumed in this document for planning purposes.

Table I.B.1: FPL's Firm Purchased Power Summer MW

Summary of FPL's Firm Capacity Purchases: Summer MW (for August of Year Shown)

I. Purchases from QF's:

Cogeneration Small Power Production Facilities	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Broward South	04/01/91	08/01/09	50.6	50.6	0	0	0	0	0	0	0	0
2. Broward South	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
3. Broward South	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
4. Broward South	01/01/97	12/31/26	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
5. Broward North	04/01/92	12/31/10	45.0	45.0	45.0	45.0	0	0	0	0	0	0
6. Broward North	01/01/93	12/31/26	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
7. Broward North	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
8.Broward North	01/01/97	12/31/26	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
9. Cedar Bay Generating Co.	01/25/94	12/31/24	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
10. Indiantown Cogen., LP	12/22/95	12/01/25	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0
11. Palm Beach SWA	04/01/92	03/31/10	47.5	47.5	47.5	0	0	0	0	0	0	0
QF Purchases Sub Total:			**738**	**738**	**687**	**640**	**595**	**595**	**595**	**595**	**595**	**595**

II. Purchases from Utilities:

	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. UPS from Southern Co.	07/20/88	05/31/10	931	931	931	0	0	0	0	0	0	0
2. UPS Replacement	06/01/10	12/31/15	0	0	0	930	930	930	930	930	930	930
3. SJRPP	04/02/82	10/31/15	381	381	381	381	381	381	381	381	381	0
Utility Purchases Sub Total:			**1312**	**1312**	**1312**	**1311**	**1311**	**1311**	**1311**	**1311**	**1311**	**930**

III. Other Purchases:

	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Reliant/Indian River	01/01/06	12/31/09	354	576	250	0	0	0	0	0	0	0
2. Indian River (Additional)	05/01/06	12/31/09	222	0	0	0	0	0	0	0	0	0
3. Progress Energy Ventures/Desoto (Put option)	06/01/05	05/31/07	0	0	0	0	0	0	0	0	0	0
4. Oleander/Southern Co (Put option)	06/01/05	05/31/07	0	0	0	0	0	0	0	0	0	0
5. Oleander (Extension)	06/01/07	05/31/12	156	156	156	156	156	0	0	0	0	0
6. Williams	03/01/06	12/31/09	106	106	106	0	0	0	0	0	0	0
7. Progress Energy Ventures	04/01/06	03/31/09	105	105	0	0	0	0	0	0	0	0
8. Other Short-Term Purchases	May-Sept of Year Shown		0	0	0	0	167	800	200	0	0	0
Other Purchases Sub Total			**943**	**943**	**512**	**156**	**323**	**800**	**200**	**0**	**0**	**0**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Summer Firm Capacity Purchases Total MW:	**2993**	**2993**	**2511**	**2107**	**2229**	**2706**	**2106**	**1906**	**1906**	**1525**

Table I.B.2: FPL's Firm Purchased Power Winter MW

Summary of FPL's Firm Capacity Purchases: Winter MW (for January of Year Shown)

I. Purchases from QF's:

Cogeneration Small Power Production Facilities	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. Broward South	04/01/91	08/01/09	50.6	50.6	50.6	0	0	0	0	0	0	0
2. Broward South	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
3. Broward South	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
4. Broward South	01/01/97	12/31/26	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
5. Broward North	04/01/92	12/31/10	45.0	45.0	45.0	45.0	0	0	0	0	0	0
6. Broward North	01/01/93	12/31/26	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
7. Broward North	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
8.Broward North	01/01/97	12/31/26	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
9. Cedar Bay Generating Co.	01/25/94	12/31/24	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0	250.0
10. Indiantown Cogen., LP	12/22/95	12/01/25	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0	330.0
11. Palm Beach SWA	04/01/92	03/31/10	47.5	47.5	47.5	47.5	0	0	0	0	0	0
QF Purchases Sub Total:			**738**	**738**	**738**	**687**	**595**	**595**	**595**	**595**	**595**	**595**

II. Purchases from Utilities:

	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. UPS from Southern Co.	07/20/88	05/31/10	931	931	931	931	0	0	0	0	0	0
2. UPS Replacement	06/01/10	12/31/15	0	0	0	0	930	930	930	930	930	930
3. SJRPP	04/02/82	10/31/15	390	390	390	390	390	390	390	390	390	0
Utility Purchases Sub Total:			**1321**	**1321**	**1321**	**1321**	**1320**	**1320**	**1320**	**1320**	**1320**	**930**

III. Other Purchases:

	Start Date	End Date	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
3. Reliant/Pasco/Shady Hills	02/28/02	02/28/07	474	0	0	0	0	0	0	0	0	0
4. Reliant/Indian River	01/01/06	12/31/09	354	576	250	0	0	0	0	0	0	0
4a. Indian River (Additional)	05/01/06	12/31/09	222	0	0	0	0	0	0	0	0	0
5. Progress Energy Ventures/Desoto (Put option)	06/01/05	05/31/07	362	0	0	0	0	0	0	0	0	0
6. Oleander/Southern Co (Put option)	06/01/05	05/31/07	180	0	0	0	0	0	0	0	0	0
6a. Oleander (Extension)	06/01/07	05/31/12	0	180	180	180	180	180	0	0	0	0
7. Williams	03/01/06	12/31/09	106	106	106	0	0	0	0	0	0	0
8. Progress Energy Ventures	04/01/06	03/31/09	105	105	105	0	0	0	0	0	0	0
9. Other Short-Term Purchases	May-Sept of Year Shown		0	0	0	0	0	0	0	0	0	0
Other Purchases Sub Total			**1803**	**967**	**641**	**180**	**180**	**180**	**0**	**0**	**0**	**0**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Winter Firm Capacity Purchases Total MW:	**3862**	**3026**	**2700**	**2188**	**2095**	**2095**	**1915**	**1915**	**1915**	**1525**

I.C Non-Firm (As Available) Energy Purchases

FPL purchases non-firm (as-available) energy from several cogeneration and small power production facilities. Table I.C.1 shows the amount of energy purchased in 2006 from these facilities.

Table I.C.1: As Available Energy Purchases From Non-Utility Generators in 2006

Project	*County*	*Fuel*	*In-Service Date*	*Energy (MWH) Delivered to FPL in 2006*
US Sugar-Bryant	Palm Beach	Bagassee	2/80	2,455
Tropicana	Manatee	Natural Gas	2/90	16,329
Okeelanta	Palm Beach	Bagassee/Wood	11/95	360,364
Tomoka Farms	Volusia	Landfill Gas	7/98	17,681
Georgia Pacific	Putnam	Paper By-Product	2/94	9,161
Elliot	Palm Beach	Natural Gas	7/05	412

I.D. Demand Side Management (DSM)

FPL has sought out and implemented cost-effective DSM programs since 1978. These programs include both conservation initiatives and load management. FPL's DSM efforts through 2006 have resulted in a cumulative Summer peak reduction of approximately 3,659 MW at the generator and an estimated cumulative energy saving of approximately 38,169 Gigawatt Hour (GWh) at the generator. Accounting for reserve margin requirements, FPL's DSM efforts through 2006 have eliminated the need to construct the equivalent approximately 11 new 400 MW generating units.

Table I.D.1 presents FPL's approved DSM Goals for Summer MW reduction. These DSM Goals are over and above the significant levels of DSM implementation FPL achieved before the year 2005. FPL's current DSM Plan was approved by the Commission in 2004 and was designed to achieve the DSM Goals for the 2005–2014 time periods.

In addition, FPL recently received approval from the Commission to modify 8 existing DSM programs and to introduce two new DSM programs. These additional efforts will result in a projected increase of 564 Summer MW at the generator of additional DSM beyond FPL's DSM Goals by 2015 as is also presented in Table I.D.1. The table shows

that when these additional 564 MW of DSM are added to the 802 MW of DSM Goals at the generator from 2006 – 2015, FPL is adding 1,366 MW at the generator of cost-effective DSM by 2015.

For planning purposes, FPL is also assuming a continuation of DSM implementation in 2016 and projects the addition of approximately 120 MW of incremental DSM in that year so that through 2016 FPL currently projects 1,486 MW of cost-effective DSM beyond the significant amount of DSM achieved by FPL through 2006.

Table I.D.1. : FPL's DSM Goals and Additional DSM: 2006 – 2015 (Summer MW)

Year	(1) DSM Goals 2005 - 2015 Summer MW at Meter (1)	(2) = (1) /(1-0.0923) DSM Goals 2005 - 2015 Summer MW at Generator (2)	(3) DSM Goals 2006 - 2015 Summer MW at Generator (3)	(4) Additional DSM 2006 - 2015 Summer MW at Generator (4)	(5) = (3) + (4) 2006 - 2015 Total Projected Summer MW at Generator (5)
2005	74.0	82	---	---	---
2006	141.7	156	75	39	114
2007	211.9	233	152	229	381
2008	287.2	316	235	289	524
2009	365.9	403	322	334	656
2010	447.9	493	412	372	784
2011	532.1	586	505	413	918
2012	618.8	682	600	456	1,056
2013	707.9	780	698	501	1,199
2014	801.7	883	802	548	1,350
2015	801.7	883	802	564	1,366

Notes: (1) The Commission-approved DSM Goals address 2005 - 2014 and represent DSM MW at the meter.

(2) The DSM Summer MW at the Generator are approximate values based on a 9.23% line loss factor.

(3) These values represent DSM Goals values from 2006 through 2015 and omit the 2005 Goals values.

(4) The values shown above for 2006 through 2008 were originally presented in FPL's 2006 Ten Year Site Plan in Table III.D.2 on page 62. Those values represented the additional DSM MW contribution through 2008 at the time the Site Plan was filed. The 2009 - on values represent a current projection of additional DSM due to FPSC approval in mid-2006 of modifications to existing FPL DSM programs and of new DSM programs.

Schedule 1

Existing Generating Facilities
As of December 31, 2006

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						Fuel		Alt. Fuel	Commercial	Expected	Gen.Max.	Net Capability 1/	
	Unit		Unit	Fuel		Transport.		Days	In-Service	Retirement	Nameplate	Winter	Summer
Plant Name	No.	Location	Type	Pri.	Alt.	Pri.	Alt.	Use	Month/Year	Month/Year	KW	MW	MW
Cape Canaveral		Brevard County 19/24S/36F									804,100	796	792
	1		ST	FO6	NG	WA	PL	Unknown	Apr-65	Unknown	402,050	398	396
	2		ST	FO6	NG	WA	PL	Unknown	May-69	Unknown	402,050	398	396
Cutler		Miami Dade County 27/55S/40E									236,500	207	205
	5		ST	NG	No	PL	No	Unknown	Nov-54	Unknown	75,000	69	68
	6		ST	NG	No	PL	No	Unknown	Jul-55	Unknown	161,500	138	137
Fort Myers		Lee County 35/43S/25E									2,822,390	2,740	2,412
	2		CC	NG	No	PL	No	Unknown	Jun-02	Unknown	1,701,890	1,599	1,440
	3A & B		CT	NG	FO2	PL	PL	Unknown	Jun-01	Unknown	376,380	372	324
	1-12		GT	FO2	No	PL	No	Unknown	May-74	Unknown	744,120	769	648
Lauderdale		Broward County 30/50S/42E									1,873,968	1,946	1,712
	4		CC	NG	FO2	PL	PL	Unknown	May-93	Unknown	526,250	464	436
	5		CC	NG	FO2	PL	PL	Unknown	Jun-93	Unknown	526,250	464	436
	1-12		GT	NG	FO2	PL	PL	Unknown	Aug-70	Unknown	410,734	509	420
	13-24		GT	NG	FO2	PL	PL	Unknown	Aug-72	Unknown	410,734	509	420
Manatee		Manatee County 18/33S/20E									2,951,110	2,859	2,742
	1		ST	FO6	NG	WA	PL	Unknown	Oct-76	Unknown	863,300	831	819
	2		ST	FO6	NG	WA	PL	Unknown	Dec-77	Unknown	863,300	831	819
	3		CC	NG	No	PL	No	Unknown	Jun-05	Unknown	1,224,510	1,197	1,104

1/ These ratings are peak capability.

Schedule 1

Existing Generating Facilities
As of December 31, 2006

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						Fuel		Alt. Fuel	Commercial	Expected	Gen.Max.	Net Capability 1/	
Plant Name	Unit No.	Location	Unit Type	Fuel Pri.	Fuel Alt.	Transport Pri.	Transport Alt.	Days Use	In-Service Month/Year	Retirement Month/Year	Nameplate KW	Winter MW	Summer MW
Martin		Martin County 29/29S/38E									4,317,510	3,874	3,738
	1		ST	FO6	NG	PL	PL	Unknown	Dec-80	Unknown	934,500	844	839
	2		ST	FO6	NG	PL	PL	Unknown	Jun-81	Unknown	934,500	844	839
	3		CC	NG	No	PL	No	Unknown	Feb-94	Unknown	612,000	503	478
	4		CC	NG	No	PL	No	Unknown	Apr-94	Unknown	612,000	503	478
	8		CC	NG	FO2	PL	PL	Unknown	Jun-01	Unknown	1,224,510	1,180	1,104
Port Everglades		City of Hollywood 23/50S/42E									1,710,384	1,736	1,639
	1		ST	FO6	NG	WA	PL	Unknown	Jun-60	Unknown	247,775	222	220
	2		ST	FO6	NG	WA	PL	Unknown	Apr-61	Unknown	247,775	222	220
	3		ST	FO6	NG	WA	PL	Unknown	Jul-64	Unknown	402,050	389	387
	4		ST	FO6	NG	WA	PL	Unknown	Apr-65	Unknown	402,050	394	392
	1-12		GT	NG	FO2	PL	PL	Unknown	Aug-71	Unknown	410,734	509	420
Putnam		Putnam County 16/10S/27E									580,008	566	498
	1		CC	NG	FO2	PL	WA	Unknown	Apr-78	Unknown	290,004	283	249
	2		CC	NG	FO2	PL	WA	Unknown	Aug-77	Unknown	290,004	283	249
Riviera		City of Riviera Beach 33/42S/43E									620,840	571	565
	3		ST	FO6	NG	WA	PL	Unknown	Jun-62	Unknown	310,420	280	277
	4		ST	FO6	NG	WA	PL	Unknown	Mar-63	Unknown	310,420	291	288
Sanford		Volusia County 16/19S/30E									2,534,050	2,264	2,044
	3		ST	FO6	NG	WA	PL	Unknown	May-59	Unknown	156,250	140	138
	4		CC	NG	No	PL	No	Unknown	Oct-03	Unknown	1,188,900	1,067	958
	5		CC	NG	No	PL	No	Unknown	Jun-02	Unknown	1,188,900	1,057	948

1/ These ratings are peak capability.

Schedule 1

Existing Generating Facilities
As of December 31, 2006

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						Fuel		Alt. Fuel	Commercial	Expected	Gen.Max.	Net Capability 1/	
	Unit		Unit	Fuel		Transport		Days	In-Service	Retirement	Nameplate	Winter	Summer
Plant Name	No.	Location	Type	Pri.	Alt.	Pri.	Alt.	Use	Month/Year	Month/Year	KW	MW	MW
Scherer 2/		Monroe, GA											
											680,368	652	646
	4		BIT	BIT	No	RR	No	Unknown	Jul-89	Unknown	680,368	652	646
St. Johns River Power Park 3/		Duval County 12/15/28E (RPC4)											
											271,836	250	250
	1		BIT	BIT	Pet	RR	WA	Unknown	Mar-87	Unknown	135,918	125	125
	2		BIT	BIT	Pet	RR	WA	Unknown	May-88	Unknown	135,918	125	125
St. Lucie		St. Lucie County 16/36S/41E											
											1,573,775	1,579	1,553
	1		NP	UR	No	TK	No	Unknown	May-76	Unknown	850,000	790	777
	2	4/	NP	UR	No	TK	No	Unknown	Jun-83	Unknown	723,775	790	777
Turkey Point		Miami Dade County 27/57S/40E											
											2,336,138	2,238	2,186
	1		ST	FO6	NG	WA	PL	Unknown	Apr-67	Unknown	402,050	398	396
	2		ST	FO6	NG	WA	PL	Unknown	Apr-68	Unknown	402,050	394	392
	3		NP	UR	No	TK	No	Unknown	Nov-72	Unknown	760,000	717	693
	4		NP	UR	No	TK	No	Unknown	Jun-73	Unknown	759,900	717	693
	1-5		IC	FO2	No	TK	No	Unknown	Dec-67	Unknown	12,138	12	12
										Total System as of December 31, 2006 =		**22,278**	**20,981**

1/ These ratings are peak capability.

2/ These ratings represent Florida Power & Light Company's share of Scherer Unit No. 4, adjusted for transmission losses.

3/ The net capability ratings represent Florida Power & Light Company's share of St. Johns River Park Unit No. 1 and No. 2, excluding Jacksonville Electric Authority (JEA) share of 80%.

4/ Total capability of each unit is 853/839 MW. FPL's ownership share of St. Lucie 1 and 2 is 100% and 85% respectively. Capabilities shown represent FPL's share of capacity from each of the units (approx. 92.5%) and exclude the Orlando Utilities Commission (OUC) and Florida Municipal Power Agency (FMPA) combined portion of approximately 7.44776% per unit.

CHAPTER II

Forecast of Electric Power Demand

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II. Forecast of Electric Power Demand

Long-term (20-year) forecasts of sales, net energy for load (NEL), and peak loads are developed on an annual basis for resource planning work at FPL. These forecasts are a key input to the models used to develop FPL's Integrated Resource Plan. The following pages describe how forecasts are developed for each component of the long-term forecast: sales, NEL, and peak loads.

The primary drivers to develop these forecasts are demographic trends, weather, economic conditions, and prices of electricity. In addition, the resulting forecasts are an integration of economic evaluations, inputs of local economic development boards, weather assessments from the National Oceanic and Atmospheric Administration (NOAA), and inputs from FPL's own customer service planning areas. In the area of demographics, population trends by county, plus housing characteristics such as housing starts, housing size, and vintage of homes are assessed.

Forecasts for electric usage in the residential and commercial classes include end-use information such as appliance saturation studies, efficiencies, and intensity of energy use. In addition to these inputs, residential forecasts also make use of household characteristics such as ages of members in households, number of members in households, and income distributions.

The projections for the national and Florida economy are obtained from Global Insight. Population projections for the counties served by FPL are obtained from the Bureau of Economic and Business Research (BEBR) of the University of Florida. In addition, FPL actively participates with local development councils and universities to obtain their assessments of the local economy, specifically in the area of expansion of new businesses and retention of the current business base. These inputs are quantified and qualified using statistical models in terms of their impact on the future demand for electricity.

Weather is always a key factor that affects the company's sales and peak demand. Weather variables are used in the forecasting models for energy sales and peak demand. There are two sets of weather variables developed and used in forecasting models:

1. Cooling and Heating Degree-Days are used to forecast energy sales.
2. Temperature data is used to forecast Summer and Winter peaks.

The Cooling and Heating Degree-Days are used to capture the changes in the electric usage of weather-sensitive appliances such as air conditioners and electric space heaters. A composite temperature hourly profile is derived using hourly temperatures across FPL's service territory (Miami, Ft. Myers, Daytona Beach, and West Palm Beach are the locations from which temperatures are obtained) weighted by regional energy sales. This composite temperature is used to derive Cooling and Heating Degree-Days which are based, respectively, on starting point temperatures of 65°F and an additional cooling degree variable based on a temperature of 75°F degrees. Similarly, composite temperature and hourly profile of temperature are used for the Summer and Winter peak models.

II.A. Long-Term Sales Forecasts

Long-term forecasts of electricity sales were developed for each revenue class for the forecasting period of 2006-2025 and are adjusted to match the Net Energy for Load (NEL) forecast. The results of these sales forecasts for the years 2007-2016 are presented in Schedules 2.1 - 2.3 which appear at the end of this chapter. Econometric models are developed for each revenue class using the statistical software package MetrixND. The methodologies used to develop energy sales forecasts for each jurisdictional revenue class and Net Energy for Load forecast are outlined below.

1. **Residential Sales**

   Residential electric usage per customer is estimated by using a regression model which contains the real residential price of electricity, real Florida personal income, Cooling and Heating Degree-Days as explanatory variables, as well as a dummy variable for hurricanes and other outliers. The price of electricity plays a role in explaining electric usage since electricity, like all other goods and services, will be used in greater or lesser quantities depending upon its price. To capture economic conditions, the model includes Florida's Real Personal Income. The degree of economic prosperity can, and does, affect residential electricity sales. The impact of weather is captured by the Heating Degree-Days and Cooling Degree-Days. Residential energy sales are forecast by multiplying the residential use per customer forecast by the number of residential customers forecasted.

2. **Commercial Sales**

The commercial sales forecast is also developed using a regression model. Commercial sales are a function of the following variables: Real Gross Domestic Product, commercial real price of electricity, Cooling Degree-Days, as well as dummy variables for hurricanes and outliers. The price of electricity is also included as an explanatory variable in the model because it has an impact on customer usage. Cooling Degree-Days are used to capture weather-sensitive load in the commercial sector.

3. **Industrial Sales**

Industrial sales were forecasted using a linear multiple regression model. The linear multiple regression model utilizes the following variables: Gross Domestic Product, Cooling Degree-Days, and several dummy variables for outliers, hurricanes, and months. The Cooling Degree-Day term is used to capture the weather-sensitive load in the industrial class.

4. **Other Public Authority Sales**

The sales for other public authority sales are developed using an econometric model with Cooling Degree-Days and several dummy variables for outliers.

5. **Street & Highway Sales and Railroad & Railways Sales**

The forecast for street and highway sales is developed using an econometric model with Real Domestic Gross Product as the primary driver and several variables for outliers. Similarly the forecast of sales to railroad & railways is developed using an econometric model with the Florida population as the primary driver and several monthly dummy variables to capture seasonality. This class consists solely of the Miami-Dade County's Metrorail system.

6. **Sales for Resale**

Sales for resale (wholesale) customers are composed of municipalities and/or electric cooperatives. These customers differ from jurisdictional customers in that they are not the ultimate users of the electricity they buy. Instead, they resell this electricity to their own customers.

Currently, there are four customers in this class: the Florida Keys Electric Cooperative (Florida Keys), City Electric System of the Utility Board of Key West,

Florida (City of Key West), Miami-Dade County, and the Florida Municipal Power Agency (FMPA)[2]. Sales to the Florida Keys are forecasted using a regression model. Forecasted sales to the City of Key West are based on assumptions regarding their contract demand and expected load factor. Miami-Dade County sells 60 MW to Progress Energy. Line losses are billed to Miami-Dade under a wholesale contract. FMPA has contracted for delivery of 75 MW from FPL through October, 2007.

7. **Total Sales**

Sales forecasts by revenue class are summed to produce a total sales forecast. After an estimate of annual total sales is obtained, an expansion factor is applied to generate a forecast of annual Net Energy for Load (NEL).

II.B. Net Energy for Load

An econometric model is developed to produce a net energy for load (NEL) forecast. The key inputs to the model are: the real price of electricity, Heating and Cooling Degree-Days, and Florida Real Personal Income.

Once the NEL forecast is obtained using the above-mentioned methodology, the results are then compared for reasonableness to the NEL forecast generated using the total sales forecast. The sales by class forecasts previously discussed are then adjusted to match the NEL from the annual NEL model.

The forecasted NEL values for 2007 – 2016 are presented in Schedule 3.3 that appears at the end of this chapter.

II.C. System Peak Forecasts

The rate of absolute growth in FPL system load has been a function of a growing customer base, varying weather conditions, continued economic growth, changing patterns of customer behavior (including an increased stock of electricity-consuming appliances), and more efficient heating and cooling appliances. FPL developed the peak forecast models to capture these behavioral relationships.

[2] At the time this document is being prepared, FPL is in discussion with Lee County Electric Co-Operative (Lee County) regarding potential wholesale service by FPL to Lee County. If such an agreement is reached, FPL will list the agreement and incorporate its impacts in future Site Plans.

The forecasting methodology of Summer, Winter, and monthly system peaks is discussed below. The forecasted values for Summer and Winter peak loads for the years 2007–2016 are presented in Schedules 3.1 and 3.2 as well as in Schedules 7.1 and 7.2.

System Summer Peak

The Summer peak forecast is developed using an econometric regression model. This econometric model utilizes the following explanatory variables: total average customers, the real price of electricity, Florida Real Personal Income, average temperature on peak day, and a heat buildup weather factor consisting of the sum of the Cooling Degree - Hours during the peak day and three prior days.

System Winter Peak

The Winter peak forecast is developed using the same econometric regression methodology as is used for Summer peak forecasts. The Winter peak model is a per customer model which contains the following explanatory variables: the square of the minimum temperature on the peak day and Heating Degree-Hours for the prior day as well as for the morning of the Winter peak day. The model also includes an economic variable: Florida Real Personal Income.

Monthly Peak Forecasts

Monthly peaks for the 2006-2025 period are forecasted to provide information for the scheduling of maintenance for power plants and fuel budgeting. The forecasting process is basically the same as for the monthly NEL forecast and consists of the following actions:

a. Develop the historical seasonal factor for each month by using ratios of historical monthly peaks to seasonal peaks (Summer = April-October, Winter = November-March.)

b. Apply the monthly ratios to their respective seasonal peak forecast to derive the peak forecast by month. This process assumes that the seasonal factors remain unchanged over the forecasting period.

II.D. The Hourly Load Forecast

Forecasted values for system hourly load for the period 2006-2025 are produced using a System Load Forecasting "shaper" program. This model uses sixteen years of historical FPL hourly system load data to develop load shapes for weekdays, weekend days, and holidays. The model allows calibration of hourly values where the peak is maintained or where both the peak and minimum load-to-peak ratio is maintained.

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 & Residential			Commercial		
Year	Population 1/	Members per Household	GWH 2/	Average 3/ No. of Customers	Average KWH Consumption Per Customer	GWH 2/	Average 3/ No. of Customers	Average KWH Consumption Per Customer
1997	7,105,592	2.21	41,849	3,209,298	13,040	32,942	388,906	84,703
1998	7,249,627	2.22	45,482	3,266,011	13,926	34,618	396,749	87,255
1999	7,412,744	2.22	44,187	3,332,422	13,260	35,524	404,942	87,725
2000	7,603,964	2.23	46,320	3,414,002	13,568	37,001	415,295	89,096
2001	7,754,846	2.22	47,588	3,490,541	13,633	37,960	426,573	88,989
2002	7,898,628	2.21	50,865	3,566,167	14,263	40,029	435,313	91,955
2003	8,079,316	2.21	53,485	3,652,663	14,643	41,425	444,650	93,163
2004	8,247,442	2.20	52,502	3,744,915	14,020	42,064	458,053	91,832
2005	8,469,602	2.21	54,348	3,828,374	14,196	43,468	469,973	92,490
2006	8,620,855	2.21	54,570	3,906,201	13,970	44,487	478,930	92,889
2007	8,802,732	2.21	56,487	3,990,266	14,156	46,626	485,886	95,960
2008	8,989,254	2.21	58,895	4,074,544	14,454	49,044	494,614	99,156
2009	9,177,066	2.21	60,744	4,160,072	14,602	51,011	503,762	101,260
2010	9,361,268	2.21	62,719	4,244,343	14,777	52,956	511,556	103,519
2011	9,539,356	2.20	64,719	4,326,923	14,957	54,899	518,549	105,870
2012	9,711,719	2.20	66,691	4,407,802	15,130	56,709	524,700	108,080
2013	9,880,048	2.20	68,288	4,487,318	15,218	58,145	530,966	109,509
2014	10,044,669	2.20	70,136	4,564,281	15,366	59,857	537,801	111,299
2015	10,207,278	2.20	72,023	4,639,626	15,523	61,679	545,099	113,152
2016	10,368,782	2.20	74,025	4,713,544	15,705	63,627	552,946	115,068

1/ Population represents only the area served by FPL.

2/ Actual energy sales include the impacts of existing conservation. Forecasted energy sales do not include the impact of incremental conservation.

3/ Average No. of Customers is the annual average of the twelve month values.

Schedule 2.2
History and Forecast of Energy Consumption
And Number of Customers by Customer Class

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		Industrial					
Year	GWH 2/	Average 3/ No. of Customers	Average KWH Consumption Per Customer	Railroads & Railways GWH	Street & Highway Lighting GWH 2/	Other Sales to Public Authorities GWH	Total 4/ Sales to Ultimate Consumers GWH
1997	3,894	14,761	263,803	85	383	702	79,855
1998	3,951	15,126	261,206	81	373	625	85,130
1999	3,948	16,040	246,135	79	473	465	84,676
2000	3,768	16,410	229,616	81	408	381	87,960
2001	4,091	15,445	264,875	86	419	67	90,212
2002	4,057	15,533	261,186	89	420	63	95,523
2003	4,004	17,029	235,128	93	425	64	99,496
2004	3,964	18,512	214,139	93	413	58	99,095
2005	3,913	20,392	191,873	95	424	49	102,296
2006	4,036	21,216	190,232	94	422	49	103,659
2007	3,956	18,706	211,476	100	456	49	107,673
2008	3,965	18,002	220,269	102	465	49	112,519
2009	3,992	16,420	243,111	104	475	49	116,375
2010	4,024	15,971	251,964	106	483	49	120,337
2011	4,056	15,672	258,807	108	492	49	124,322
2012	4,088	15,672	260,827	110	500	49	128,147
2013	4,121	15,266	269,963	112	509	49	131,224
2014	4,153	15,146	274,210	113	519	49	134,827
2015	4,188	15,090	277,503	115	529	49	138,583
2016	4,224	15,089	279,911	117	540	49	142,582

2/ Actual energy sales include existing conservation. Forecasted energy sales do not include the impact of incremental conservation.

3/ Average No.of Customers is the annual average of the twelve month values.

4/ GWH Col. (16) = Col. (4) + Col. (7) + Col. (10) + Col. (13) + Col. (14) + Col. (15).

Schedule 2.3
History and Forecast of Energy Consumption
And Number of Customers by Customer Class

(1)	(17)	(18)	(19)	(20)	(21)
Year	Sales for Resale GWH	Utility Use & Losses GWH	Net 5/ Energy For Load GWH 2/	Average 3/ No. of Other Customers	Total Average 3/,6/ Number of Customers
1997	1,228	5,771	86,853	2,520	3,615,485
1998	1,326	6,206	92,662	2,584	3,680,470
1999	953	5,829	91,458	2,605	3,756,009
2000	970	7,059	95,989	2,694	3,848,401
2001	970	7,222	98,404	2,722	3,935,281
2002	1,233	7,443	104,199	2,792	4,019,805
2003	1,511	7,386	108,393	2,879	4,117,221
2004	1,531	7,464	108,091	3,029	4,224,509
2005	1,506	7,498	111,301	3,157	4,321,896
2006	1,569	7,909	113,137	3,216	4,409,563
2007	1,477	8,401	117,551	3,311	4,498,169
2008	1,004	8,501	122,024	3,402	4,590,561
2009	1,019	8,877	126,270	3,495	4,683,749
2010	1,034	9,128	130,499	3,589	4,775,460
2011	1,034	9,410	134,766	3,687	4,864,831
2012	1,034	9,857	139,038	3,783	4,951,957
2013	1,034	10,121	142,379	3,878	5,037,427
2014	1,034	10,396	146,257	3,971	5,121,200
2015	1,034	10,675	150,291	4,063	5,203,878
2016	1,034	10,940	154,556	4,154	5,285,732

2/ Actual energy sales include existing conservation. Forecasted energy sales do not include the impact of incremental conservation and agrees to Col. (2) on Schedule 3.3.

3/ Average No.of Customers is the annual average of the twelve month values.

5/ GWH Col. (19) = Col. (16) + Col. (17) + Col. (18). Actual NEL include the impacts of existing conservation and agrees to Col. (8) on schedule 3.3.

6/ Total Col. (21) = Col. (5) + Col. (8) + Col. (11) + Col. (20).

Schedule 3.1
History and Forecast of Summer Peak Demand: Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
1997	16,613	380	16,233	0	582	440	435	343	15,596
1998	17,697	426	17,471	0	628	526	458	385	16,811
1999	17,615	169	17,446	0	673	592	452	420	16,490
2000	17,808	161	17,647	0	719	645	467	451	16,622
2001	18,754	169	18,585	0	737	697	488	481	17,529
2002	19,219	261	18,958	0	770	755	489	517	17,960
2003	19,668	253	19,415	0	781	799	577	554	18,310
2004	20,545	258	20,287	0	783	847	588	578	19,174
2005	22,361	264	22,097	0	790	895	600	611	20,971
2006	21,819	256	21,563	0	809	948	635	640	18,787
2007	22,259	230	22,029	0	932	85	701	50	20,491
2008	22,770	155	22,615	0	966	129	738	75	20,862
2009	23,435	155	23,280	0	997	174	760	103	21,401
2010	24,003	155	23,848	0	1016	221	776	133	21,857
2011	24,612	155	24,457	0	1037	270	791	166	22,348
2012	25,115	155	24,960	0	1,059	322	806	201	22,727
2013	25,590	110	25,480	0	1,083	375	822	236	23,074
2014	26,100	110	25,990	0	1,110	430	837	274	23,449
2015	26,772	110	26,662	0	1,139	486	852	312	23,982
2016	27,410	110	27,300	0	1,175	505	884	347	24,499

Historical Values (1997 - 2006):

Col. (2) - Col. (4) are actual values for historical summer peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col. (9) for 1997 through 2006 represent actual DSM capabilities starting from January 1998 and are annual (12-month) values. Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC) and Commercial /Industrial Demand Reduction (CDR). Col.(5) - Col.(9) for year 2004 are "estimated actuals" and are August values.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula:Col. (10) = Col.(2) - Col.(6) - Col.(8).

Projected Values (2007 - 2016):

Col. (2) - Col.(4) represent FPL's forecasted peak w/o incremental conservation or cumulative load control. The effects of conservation implemented prior to 2004 are incorporated into the load forecast.

Col. (5) - Col. (9) represent all incremental conservation and cumulative load control. These values are projected August values and the conservation values are based on projections with a 1/2006 starting point for use with the 2006 load forecast.

Col. (10) represents a 'Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

Schedule 3.2
History and Forecast of Winter Peak Demand:Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
1997/98	13,060	239	12,821	0	641	369	426	151	11,993
1998/99	16,802	149	16,653	0	692	404	446	164	15,664
1999/00	17,057	142	16,915	0	741	434	438	176	15,878
2000/01	18,199	150	18,049	0	791	459	448	183	16,960
2001/02	17,597	145	17,452	0	811	500	457	196	16,329
2002/03	20,190	246	19,944	0	847	546	453	206	18,890
2003/04	14,752	211	14,541	0	857	570	532	230	13,363
2004/05	18,108	225	17,883	0	862	583	542	233	16,704
2005/06	19,683	225	19,458	0	870	600	550	240	18,263
2006/07	16,815	223	16,592	0	894	620	577	249	15,344
2007/08	22,627	230	22,397	0	902	27	618	8	21,072
2008/09	23,115	155	22,960	0	935	54	644	17	21,466
2009/10	23,587	155	23,432	0	972	82	670	27	21,837
2010/11	24,047	155	23,892	0	989	109	678	38	22,233
2011/12	24,498	155	24,343	0	1,009	137	686	51	22,615
2012/13	24,952	155	24,797	0	1,030	166	694	65	22,998
2013/14	25,416	155	25,261	0	1,052	194	702	79	23,388
2014/15	26,048	110	25,938	0	1,077	224	711	95	23,942
2015/16	26,692	110	26,582	0	1,105	253	719	112	24,504
2016/17	27,342	110	27,232	0	1,131	280	726	127	25,078

Historical Values (1997 - 2006):

Col. (2) - Col. (4) are actual values for historical winter peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9), and may incorporate the effects of load control if load control was operated on these peak days. Therefore, Col. (2) represents the actual Net Firm Demand.

Col. (5) - Col.(9) for 1996/97 through 2005/06 represent actual DSM capabilities starting from January 1988 and are annual (12-month) values. Note that the values for FPL's former Interruptible Rate are incorporated into Col. (8), which also includes Business On Call (BOC) and Commercial/Industrial Demand Reduction (CDR).Col.(5) - Col.(9) for year 2004/05 are "estimated actuals" and are January values.

Col. (10) represents a HYPOTHETICAL "Net Firm Demand" if the load control values had definitely been exercised on the peak. Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col. (6) - Col. (8).

Projected Values (2007/08- 2015/16):

Col. (2) - Col.(4) represent FPL's forecasted peak w/o incremental conservation or cumulative load control. The effects of conservation implemented prior to 2004 are incorporated into the load forecast.

Col. (5) - Col.(9) represent all incremental conservation and cumulative load control. These values are projected January values and the conservation values are based on projections with a 1/2004 starting point for use with the 2004 load forecast.

Col. (10) represents a 'Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by using the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

Schedule 3.3
History and Forecast of Annual Net Energy for Load - GWH: Base Case

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total	Residential Conservation	C/I Conservation	Retail	Sales for Resale GWH	Utility Use & Losses	Net Energy For Load	Load Factor(%)
1997	89,243	1,213	1,177	88,015	1,228	5,771	86,853	59.7%
1998	95,318	1,374	1,282	93,992	1,326	6,206	92,662	59.1%
1999	94,365	1,542	1,365	93,412	953	5,829	91,458	59.3%
2000	99,097	1,674	1,434	98,127	970	7,059	95,989	61.5%
2001	101,739	1,789	1,545	100,768	970	7,222	98,404	59.9%
2002	107,755	1,917	1,639	106,522	1,233	7,443	104,199	61.9%
2003	112,160	2,008	1,759	110,648	1,511	7,386	108,393	62.9%
2004	112,031	2,106	1,834	110,500	1,531	7,464	108,091	60.1%
2005	115,440	2,205	1,934	113,934	1,506	7,498	111,301	56.8%
2006	117,490	2,312	2,041	115,921	1,569	7,909	113,137	59.2%
2007	117,551	162	134	116,074	1,477	8,401	117,255	60.3%
2008	122,024	253	176	121,021	1,004	8,501	121,596	61.2%
2009	126,270	343	220	125,251	1,019	8,877	125,707	61.3%
2010	130,499	437	268	129,465	1,034	9,128	129,794	62.1%
2011	134,766	535	319	133,732	1,034	9,410	133,912	62.5%
2012	139,038	637	372	138,005	1,034	9,857	138,029	63.2%
2013	142,379	742	429	141,345	1,034	10,121	141,208	63.3%
2014	146,257	850	488	145,223	1,034	10,396	144,918	64.0%
2015	150,291	959	548	149,258	1,034	10,675	148,785	64.1%
2016	154,556	963	550	153,522	1,034	10,940	153,042	64.4%

Historical Values (1997 - 2006):

Col. (2) represents derived "Total Net Energy For Load w/o DSM". The values are calculated using the formula: Col. (2) = Col. (3) + Col. (4) + Col. (8).

Col.(3) & Col.(4) for 1997 through 2006 are DSM values starting in January 1988 and are annual (12-month) values.Col. (3) and Col. (4) for 2006 are "estimated actuals" and are also annual (12-month) values. The values represent the total GWH reductions actually experienced each year .

Col. (5) & Col. (6) are a breakdown of Net Energy For Load in Col (2) into Retail and Wholesale.

Col. (9) is calculated using Col. (8) from this page and Col. (2), "Total", from Schedule 3.1 using the formula: Col. (9) = ((Col. (8)*1000) / ((Col.(2) * 8760)

Projected Values (2007 - 2016):

Col. (2) represents Net Energy for Load w/o DSM values. The values are extracted from Schedule 2.3, Col. (19).

Col. (3) & Col. (4) are forecasted values of the reduction on sales from incremental conservation and are mid-year (6-month) values. The effects of conservation implemented prior to 2006 are incorporated into the load forecast.

Col. (5) & Col. (6) are a breakdown of Net Energy For Load in Col (2) , into Retail and Wholesale.

Col. (8) NEL projected values shown here do include the impact of conservation in Col. (3) and Col. (4). Therefore, these NEL values **do not match** those shown on schedule 2.3 because those values do not account for incremental conservation.

Col. (9) is calculated using Col. (2) from this page and Col. (2), "Total", from Schedule 3.1. Col. (9) = ((Col. (2)*1000) / ((Col. (2) * 8760)
Adjustments are made for leap years.

Schedule 4
Previous Year Actual and Two-Year Forecast of
Retail Peak Demand and Net Energy for Load (NEL) by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2006 ACTUAL		2007* FORECAST		2008* FORECAST	
Month	Total Peak Demand MW	NEL GWH	Total Peak Demand MW	NEL GWH	Total Peak Demand MW	NEL GWH
JAN	14,800	8,059	22,247	8,439	22,627	8,811
FEB	19,683	7,473	18,338	7,615	18,652	8,240
MAR	16,946	8,179	17,303	8,757	17,599	9,042
APR	18,975	9,296	18,531	9,212	18,956	9,533
MAY	19,321	9,458	20,558	9,692	21,030	10,033
JUN	21,123	11,031	21,395	11,221	21,886	11,568
JUL	21,493	10,690	21,805	11,192	22,305	11,592
AUG	21,819	11,634	22,259	11,819	22,770	12,251
SEP	20,580	10,926	21,607	11,633	22,103	11,981
OCT	19,440	9,746	20,104	10,024	20,565	10,369
NOV	17,260	8,382	18,748	9,106	19,152	9,519
DEC	15,798	8,263	19,139	8,839	19,552	9,086
TOTALS		113,137		117,551		122,024

* Forecasted Peaks & NEL do not include the impacts of cumulative load management and incremental conservation and are consistent with values shown in Col. (19) of Schedule 2.3 and Col (2) of Schedule 3.3.

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CHAPTER III

Projection of Incremental Resource Additions

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III. Projection of Incremental Resource Additions

III.A FPL's Resource Planning:

FPL developed an integrated resource planning (IRP) process in the early 1990s and has since utilized the process to determine when new resources are needed, what the magnitude of the needed resources are, and what type of resources should be added. The timing and type of potential new power plants, the primary subjects of this document, are determined as part of the IRP process work. This section discusses how FPL applied this process in its 2006 and early 2007 resource planning work.

Four Fundamental Steps of FPL's Resource Planning:

There are 4 fundamental "steps" to FPL's resource planning. These steps can be described as follows:

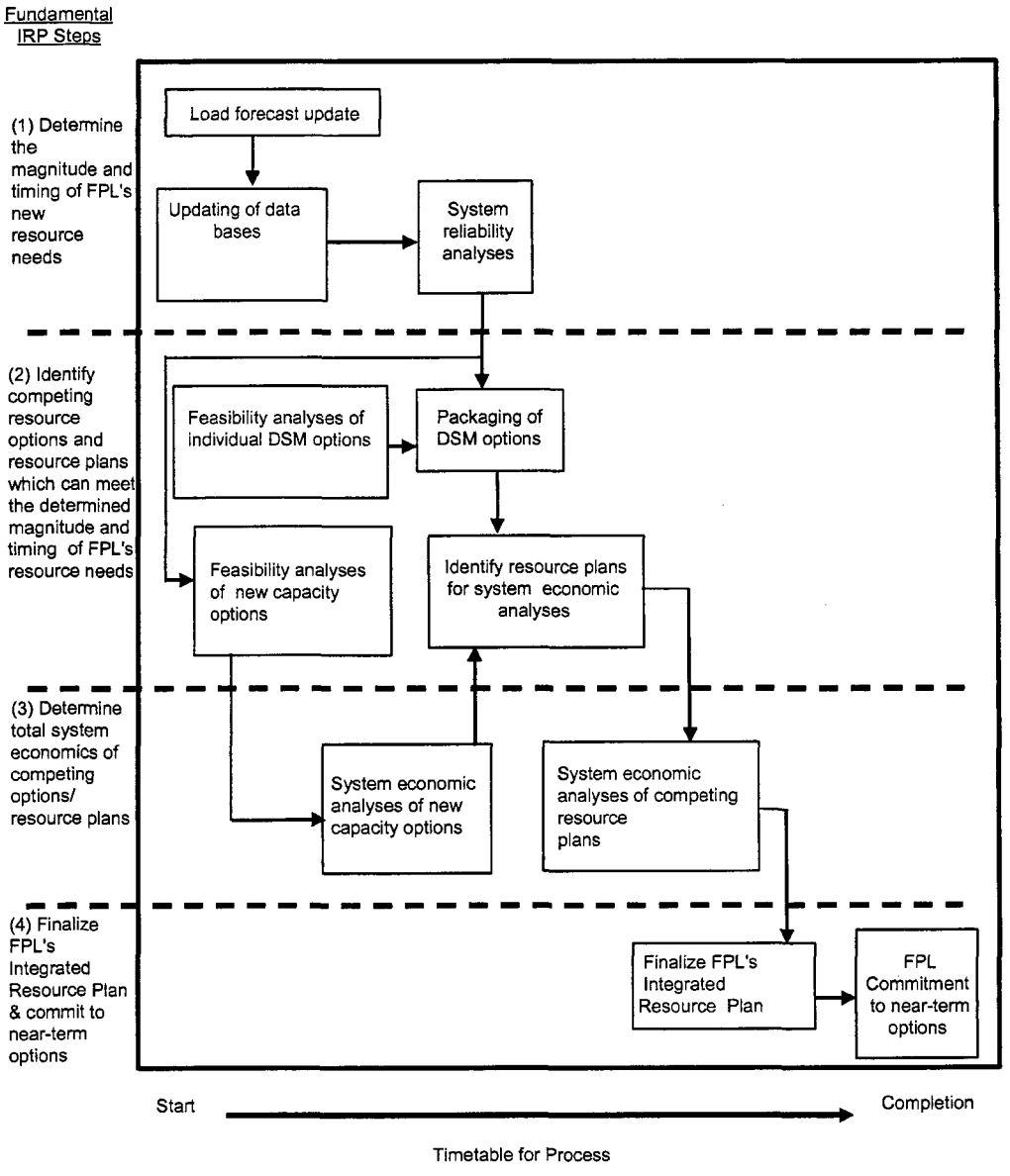
Step 1: Determine the magnitude and timing of FPL's new resource needs;

Step 2: Identify which resource options and resource plans can meet the determined magnitude and timing of FPL's resource needs (i.e., identify competing options and resource plans);

Step 3: Determine the economics for the total utility system with each of the competing options and resource plans; and,

Step 4: Select a resource plan and commit, as needed, to near-term options.

Figure III.A.1 graphically outlines the 4 steps.



(Normal time period: approx. 6-7 months)

Figure III.A.1: Overview of FPL's IRP Process

Step 1: Determine the Magnitude and Timing of FPL's New Resource Needs:

The first of these four resource planning steps, determining the magnitude and timing of FPL's resource needs, is essentially a determination of the amount of capacity or megawatts (MW) of load reduction, new capacity additions, or a combination of both load reduction and new capacity additions that are needed. Also determined in this step is when the MW are needed to meet FPL's planning criteria. This step is often referred to as a reliability, or resource adequacy, assessment for the utility system.

Step 1 typically starts with an updated load forecast. Several databases are also updated in this first fundamental step, not only with the new information regarding forecasted loads, but also with other information that is used in many of the fundamental steps in resource planning. Examples of this new information include: delivered fuel price projections, current financial and economic assumptions, and power plant capability and reliability assumptions. FPL also includes key assumptions regarding three specific resource areas: (1) near-term construction capacity additions, (2) firm capacity power purchases, and (3) DSM implementation.

The first of these assumptions is based on FPL's ongoing engineering and construction activities to add near-term capacity. These construction activities include three new combined cycle (CC) units: one at FPL's Turkey Point site scheduled to come in-service by mid-2007 and two at FPL's West County Energy Center (WCEC) site scheduled to come in-service by mid-2009 and mid-2010 respectively. FPL selected these CC options after conducting separate Request for Proposals (RFP) solicitations and evaluating the options received in response to the RFPs. These additions were subsequently approved by the FPSC and the Governor and Siting Board.

The second of these assumptions involves firm capacity power purchases. These firm capacity purchases are from a combination of utility and independent power producers. Details, including the annual total capacity values for these purchases are presented in Tables I.B.1 and I.B.2. These purchased capacity amounts were incorporated in FPL's recent resource planning work.

The third of these assumptions involves DSM. Since 1994, FPL's resource planning work has assumed that the DSM MW called for in FPL's approved DSM Goals will be achieved per plan. This was again the case in FPL's most recent planning work as its new DSM

Goals that address the years 2005 through 2014, and that were approved by the FPSC in August 2004, are assumed to be achieved per plan.

In addition, FPL recently received approval from the Commission to modify 8 existing DSM programs and to introduce two new DSM programs. These efforts will result in a projected increase of 564 Summer MW at the generator of additional DSM and curtailable beyond FPL's DSM Goals by 2015. In addition, FPL is also assuming a continuation of DSM implementation in 2016 and projects the additions of approximately 120 MW of incremental DSM in that year so that through 2016 FPL currently projects 1,486 MW of cost-effective DSM beyond the significant amount of DSM achieved by FPL through 2006. These additional MW of DSM were also accounted for prior to making projections of new resource needs.

These key assumptions, plus the other updated information, are then applied in the first fundamental step: the determination of the magnitude and the timing of FPL's resource needs. This determination is accomplished by system reliability analyses which are typically based on a dual planning criteria of a minimum peak period reserve margin of 20% (FPL applies this to both Summer and Winter peaks) and a maximum loss-of-load probability (LOLP) of 0.1 day per year. Both of these criteria are commonly used throughout the utility industry.

Historically, two types of methodologies, deterministic and probabilistic, have been employed in system reliability analysis. The calculation of excess firm capacity at the annual system peaks (reserve margin) is the most common method, and this relatively simple deterministic calculation can be performed on a spreadsheet. It provides an indication of the adequacy of a generating system's capacity resources compared to its native load during peak periods. However, deterministic methods do not take into account probabilistic-related elements such as the impact of individual unit failures. For example: two 50 MW units which can be counted on to run 90% of the time are more valuable in regard to utility system reliability than is one 100 MW unit which can also be counted on to run 90% of the time. Probabilistic methods also recognize the value of being part of an interconnected system with access to multiple capacity sources.

For this reason, probabilistic methodologies have been used to provide an additional perspective on the generation resource adequacy of a generating system. There are a number of probabilistic methods that are being used to perform system reliability analyses. Of these, the most widely used is loss–of-load probability or LOLP. Simply stated, LOLP

is an index of how well a generating system may be able to meet its demand (i.e., a measure of how often load may exceed available resources). In contrast to reserve margin, the calculation of LOLP looks at the daily peak demands for each year, while taking into consideration such probabilistic events as the unavailability of individual generators due to scheduled maintenance or forced outages.

LOLP is expressed in units of the "number of times per year" that the system demand could not be served. The standard for LOLP accepted throughout the industry is a maximum of 0.1 day per year. This analysis requires a more complicated calculation methodology than does the reserve margin analysis. LOLP analyses are typically carried out using computer software models such as the Tie Line Assistance and Generation Reliability (TIGER) program used by FPL.

The result of the first fundamental step of resource planning is a projection of how many new MW of resources are needed to meet both reserve margin and LOLP criteria, and thus maintain system reliability, and of when the MW are needed. Information regarding the timing and magnitude of these resource needs is used in the second fundamental step: identifying resource options and resource plans that can meet the determined magnitude and timing of FPL's resource needs.

Step 2: Identify Resource Options and Plans That Can Meet the Determined Magnitude and Timing of FPL's Resource Needs:

The initial activities associated with this second fundamental step of resource planning generally proceed concurrently with the activities associated with Step 1. During Step 2, feasibility analyses of new capacity options are conducted to determine which new capacity options appear to be the most competitive on FPL's system. These analyses also establish capacity size (MW) values, projected construction/permitting schedules, and operating parameters and costs. In similar analyses, feasibility analyses of new DSM options and/or continued growth in existing DSM options, are conducted.

The individual new resource options emerging from these feasibility options are then typically "packaged" into different resource plans which are designed to meet the system reliability criteria. In other words, resource plans are created by combining individual resource options so that the timing and magnitude of FPL's new resource needs are met. The creation of these competing resource plans is frequently carried out using dynamic programming techniques.

At the conclusion of the second fundamental resource planning step, a number of different combinations of new resource options (i.e., resource plans) of a magnitude and timing necessary to meet FPL's resource needs are identified.

Step 3: Determining the Total System Economics:

At the completion of fundamental steps 1 & 2, the most viable new resource options have been identified, and these resource options have been combined into a number of resource plans which meet the magnitude and timing of FPL's resource needs. The stage is set for comparing the system economics of these resource plans. In its 2006 resource planning work, FPL performed some of this work of combining resource options into resource plans using the EGEAS (Electric Generation Expansion Analysis System) computer model from the Electric Power Research Institute (EPRI). The EGEAS model was also used to perform basic economic analyses of resource plans. For various analyses, including the analyses of the advanced technology coal option, FPL utilized the P-MArea production cost model and a Fixed Cost Spreadsheet to develop a more detailed perspective of costs for the various resource plans developed to analyze the advanced technology coal option. The P-MArea model is the model used by FPL to develop the Fuel Cost Budget and to conduct other production cost-related analyses.

In 2006, FPL also utilized several other models in its resource planning work. For DSM analyses, FPL used its DSM cost-effectiveness model; an FPL spreadsheet model utilizing the FPSC's approved methodology for analyzing the cost-effectiveness of individual DSM measures/programs, and its non-linear programming model for analyzing the potential for lowering system peak loads through additional load management capacity.

The basic economic analyses of the competing resource plans focus on total system economics. The standard basis for comparing the economics of competing resource plans is their relative impact on FPL's electricity rate levels, with the intent of minimizing FPL's leveled system average rate (i.e., a Rate Impact Measure or RIM methodology). However, in cases in which the DSM contribution was assumed as a given and the only competing options were new generating units and/or purchase options, comparisons of competing resource plans' impacts on electricity rates and on system revenue requirements are equivalent. Consequently, the competing options and plans were evaluated on a cumulative present value revenue requirement (CPVRR) basis.

Step 4: Finalizing FPL's Current Resource Plan

The results of the previous three fundamental steps were used to develop the future generation plan. This plan is presented in the following section.

III.B Incremental Resource Additions

FPL's projected incremental generation capacity additions/changes for 2007 through 2016 are depicted in Table III.B.1 (the planned DSM additions through 2015 were shown previously in Table I.D.1). These capacity additions/changes result from a variety of actions including: changes to existing units (which are frequently achieved as a result of plant component replacements during major overhauls), changes in the amounts of purchased power being delivered under existing contracts as per the contract schedules or by entering into new purchase contracts, and by projected construction of new generating units.

As shown in Table III.B.1, the capacity additions are largely made up of committed new construction, new purchases, and proposed self-build alternatives. (The additional DSM MW are not presented in this table but have been accounted for prior to making these new capacity option projections.) FPL included its previously committed generation construction projects in its 2006 reliability assessment. These committed construction projects are the new 1,144 MW combined cycle (CC) unit at FPL's existing Turkey Point plant site (Turkey Point Unit #5) that will be placed into service in mid-2007, the new 1,219 MW CC unit at the West County Energy Center (WCEC) that is scheduled to be placed into service in mid-2009 (WCEC Unit #1), and a second 1,219 MW CC unit at WCEC (WCEC Unit #2) that is scheduled to be placed into service in mid-2010.

FPL also projects the construction of two new advanced technology coal units; one each by 2013 and 2014 at FPL's Glades Power Park (FGPP) site in Glades County. These two units will use ultra-supercritical pulverized coal (USCPC) technology in concert with advanced emissions controls to address FPL's resource needs for 2013 and 2014 and to maintain fuel diversity on FPL's system. FPL filed for FPSC approval of these two advanced technology coal units on February 1, 2007. The FPSC is expected to render its decision by July 2007.

These additions of the Turkey Point, WCEC, and FGPP units will meet a significant portion of FPL's projected resource needs through 2016 and will maintain fuel diversity on FPL's system. After accounting for these capacity additions, FPL projects a remaining small (167 MW) resource need in 2011 and more significant resource needs in 2012 (777 MW), 2013 (214 MW), 2015 (323 MW), and 2016 (1,327). No decisions are currently needed in regard to how FPL will meet those needs and FPL will consider additional cost-effective DSM, power purchases, enhancements to FPL's existing units, and new generation construction as options with which to meet those needs.

For purposes of this planning document, FPL projects short-term firm capacity purchases of 167 MW in 2011, 800 MW in 2012, and 200 MW in 2013 to meet the remaining capacity needs in those years. Also projected is the addition of a new 1,219 MW unsited CC unit (labeled as "South Florida CC") similar to the WCEC CC units in 2015 to meet the remaining capacity need in 2015 and 2016.

Table III.B.1: Projected Capacity Changes for FPL [1]

Projected Capacity Changes for FPL [1]			
		Net Capacity Changes (MW)	
		Winter [2]	Summer [3]
2007	Turkey Point Unit #5 [5]	---	1,144
	Changes to Existing Units	16	(2)
	Changes to Existing Purchases [4]	657	(387)
2008	Turkey Point Unit #5 [5]	1,181	---
	Changes to Existing Units	28	27
	Changes to Existing Purchases [4]	(836)	---
2009	West County Unit #1 [5]	---	1,219
	Changes to Existing Units	28	1
	Changes to Existing Purchases [4]	(326)	(482)
2010	West County Unit #1 [5]	1,335	---
	West County Unit #2 [5]	---	1,219
	Changes to Existing Purchases [4]	(512)	(405)
2011	West County Unit #2 [5]	1,335	---
	Power Purchase in 2011		167
	Changes to Existing Purchases [4]	(94)	(45)
2012	Changes to Existing Purchases [4]	---	(156)
	Changes to Power Purchase in 2011	---	(167)
	Power Purchase in 2012	---	800
2013	FGPP Unit # 1 [5]	---	980
	Changes to Power Purchase in 2012	---	(800)
	Power Purchase in 2013	---	200
	Changes to Existing Purchases [4]	(180)	---
2014	FGPP Unit # 1 [5]	990	---
	FGPP Unit # 2 [5]	---	980
	Changes to Power Purchase in 2013	---	(200)
2015	FGPP Unit # 2 [5]	990	---
	South Florida CC #1 [5]	---	1,219
2016	South Florida CC #1 [5]	1,335	---
	Changes to Existing Purchases [4]	(390)	(381)
	TOTALS =	**5,557**	**4,931**

(1) Additional information about these resulting reserve margins and capacity changes are found on Schedules 7 & 8 respectively.
(2) Winter values are values for January of year shown.
(3) Summer values are values for August of year shown.
(4) These are firm capacity and energy contracts with QF, Utilities and other purchases. See Table I.B.1 and Table I.B.2 for more details.
(5) All new unit additions are scheduled to be in-service in June of the year shown. Consequently, they are included in the Summer reserve margin calculation for the in-service year and in both the Summer and Winter reserve margin calculations for subsequent years.

III.C Issues Impacting FPL's Recent Planning Work

FPL's 2006 and early 2007 planning efforts have continued to address two issues that were identified in previous Site Plans as being items of on-going importance. Those two issues are: (1) the need to maintain fuel diversity in the FPL system and (2) the need to address the imbalance between regional load and generating capacity located in Southeast Florida.

1. System Fuel Diversity

FPL's plans to add the two advanced technology coal FGPP units by 2013 and 2014, respectively, is a key and integral part of FPL's plan to maintain fuel diversity on FPL's system. After these coal units come on-line, the role of natural gas in FPL's projected fuel mix will be no greater than 61% through 2016.

FPL has also begun the process to review the prospect for new nuclear generation and the advisability of initiating significant financial commitments in the face of schedule, cost, and regulatory uncertainties to do so. FPL will be taking necessary and appropriate steps in the near future to preserve new nuclear generation as an option for the latter half of the next decade in order to maintain and enhance fuel diversity in the FPL system.

FPL also has been involved in activities to investigate adding or maintaining renewable resources as a part of its generation supply. One of these activities is a variety of discussions with existing facilities aimed at maintaining or extending current agreements. In addition, and as a direct result of FPL's Sunshine Energy® Program, photovoltaic installations are being made. These include a 250 kw photovoltaic site in Sarasota County as well other smaller installations throughout FPL's service territory. Additionally, FPL is actively investigating a site for a demonstration wind generation project in the 10 MW range.

FPL maintains its interest in new and developing technologies, such as solar photovoltaic, solar thermal, and ocean current turbine technology. It is possible that renewable technologies may become more cost-effective over the next ten years and may be feasible additions to provide some diversity to the system fuel supply. FPL shares, with others, the objective of fostering the development and operation of additional cost-effective renewable sources of generation. Based upon available information, however, FPL does not believe

that renewable resources are likely to contribute more than a modest amount to satisfying the annual electric load growth in FPL's territory.

In the future, FPL will continue to identify and evaluate alternatives that may maintain or enhance fuel diversity in its capacity resource mix including purchasing power from coal-fired facilities when such power becomes available. FPL also plans to maintain the ability to utilize fuel oil at those existing units that have that capability, although cost factors currently limit the expected use of these facilities.

2. Southeast Florida Imbalance

There currently is an imbalance between regionally installed generation and peak load in Southeast Florida. A significant amount of energy required in the Southeast Florida region during peak periods is provided through the transmission system from plants located outside the region. Based on the forecast for continued load growth in this region, the imbalance between generation and load is projected to increase unless additional generation capacity is periodically located within this region.

FPL's prior planning work concluded that either additional installed capacity in this region, or transmission capacity capable of delivering additional electricity from outside the region, would be required to address this imbalance.

Partly because of the lower transmission-related costs resulting from their location, Turkey Point Unit #5 and WCEC Units #1 and #2 were evaluated as the most cost-effective options to meet FPL's 2007 and 2009-2010 capacity needs, respectively. Adding Turkey Point Unit #5 and WCEC Units #1 and #2 will significantly reduce the imbalance between generation and load in Southeast Florida. Furthermore, the addition of the proposed FGPP units will also help address this imbalance by the addition of new transmission lines connecting Southeast Florida and the FGPP units.

Together these unit additions will help address the imbalance for at least much of the 2007-2016 reporting period addressed in this document. However, the Southeast Florida imbalance will remain a consideration in FPL's on-going resource planning work.

III.D Demand Side Management (DSM)

1. Currently Approved Programs and Goals:

FPL's currently approved DSM programs are summarized as follows:

Residential Conservation Service: This is an energy audit program designed to assist residential customers in understanding how to make their homes more energy-efficient through the installation of conservation measures/practices.

Residential Building Envelope: This program encourages the installation of energy-efficient ceiling insulation, reflective roofs, and roof membranes in residential dwellings that utilize whole-house electric air conditioning.

Duct System Testing and Repair: This program encourages demand and energy conservation through the identification of air leaks in whole-house air conditioning duct systems and by the repair of these leaks by qualified contractors.

Residential Air Conditioning: This is a program to encourage customers to purchase higher efficiency central cooling and heating equipment.

Residential Load Management (On-Call): This program offers load control of major appliances/household equipment to residential customers in exchange for monthly electric bill credits.

New Construction (BuildSmart): This program encourages the design and construction of energy-efficient homes that cost-effectively reduce coincident peak demand and energy consumption.

Residential Low Income Weatherization: This program addresses the needs of low-income housing retrofits by providing monetary incentives to various housing authorities, including weatherization agency providers (WAPS), non-weatherization agency providers (non-WAPS), and other providers approved by FPL. The incentives are used by these providers to leverage their funds to increase the overall energy efficiency of the homes they are retrofitting.

Business Energy Evaluation: This program encourages energy efficiency in both new and existing businesses by identifying DSM opportunities and providing recommendations to business customers.

Business Heating, Ventilating and Air Conditioning: This program encourages the use of high-efficiency heating, ventilation, and air conditioning (HVAC) systems for business customers.

Business Efficient Lighting: This program encourages the installation of energy-efficient lighting measures for business customers.

Business Custom Incentive: This program encourages business customers to implement unique energy conservation measures or projects not covered by other FPL programs.

Commercial/Industrial Load Control: This program reduces peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages in exchange for monthly electric bill credits. (This program was closed to new participants in 2000).

Commercial Demand Reduction: This program, which started in 2002, is similar to the Commercial/Industrial Load Control program mentioned above in continuing the objective to reduce peak demand by controlling customer loads of 200 kW or greater during periods of extreme demand or capacity shortages in exchange for monthly electric bill credits.

Business Building Envelope: This program encourages the installation of energy-efficient building envelope measures, such as roof/ceiling insulation, reflective roof coatings, and window treatments for business customers.

Business On Call: This program offers load control of central air conditioning units to both small non–demand-billed and medium demand-billed business customers in exchange for monthly electric bill credits.

Business Water Heating: This program encourages the installation of energy-efficient water heating equipment such as heat pump water heaters and heat recovery units for business customers.

Business Refrigeration: This program encourages the installation of qualifying controls and equipment that reduce electric strip heater usage in refrigeration equipment for business customers.

FPL's approved DSM Goals for Summer MW reduction from these programs are presented in Table III.D.1.

Year	Goal Cumulative Summer MW
2005	74
2006	142
2007	212
2008	287
2009	366
2010	448
2011	532
2012	619
2013	708
2014	802

Table III.D.1: FPL's Summer MW Reduction Goals for DSM (At the Meter)

Table III.D.1 reflects FPL's DSM Goals for 2005–2014 as approved by the Florida Public Service Commission in June, 2004. These annual cumulative values assume a 1/1/05 starting point.

2. Research and Development

FPL continues to support research and development activities. Historically, FPL has performed extensive DSM research and development. FPL will continue such activities, not only through its Conservation Research and Development program, but also through individual research projects. These efforts will examine a wide variety of technologies that build on prior FPL research where applicable and will expand the research to new and promising technologies as they emerge.

Conservation Research and Development Program

FPL's Conservation Research and Development Program is designed to evaluate emerging conservation technologies to determine which are worthy of pursuing for program development and approval. FPL has researched a wide variety of technologies such as condenser coil cleaner and coating, ultraviolet lights for evaporator coils, Energy Recovery Ventilators (ERV), fuel cell demonstrations, CO_2 ventilation control, two-speed air handlers, and duct plenum repair. Many of the technologies examined have resulted in enhancements to existing programs or the development of new programs such as Residential New Construction, Commercial/Industrial Building Envelope, and Business On Call.

On Call Incentive Reduction Pilot

In March 2003, FPL received FPSC approval to perform a pilot for its On Call Program. Under the pilot FPL is offering to new participants a residential load control service similar to the On Call Program at a reduced incentive level. The offering of this pilot is allowing FPL to test its market research data and gauge whether FPL can repackage its current residential load control service, minimize customer attrition, achieve current goals for residential load control, and, ultimately, change On Call incentive levels without damaging FPL system reliability.

3. Additional DSM Contributions

Since FPL's current DSM Goals were established, FPL has continued to evaluate the potential for additional cost-effective DSM. Increases in FPL's forecasted peak growth, and the corresponding increase in projected resource needs, has resulted in FPL increasing its projection of cost-effective DSM by 564 MW at the generator from 2006-2015, and by another 120 MW at the generator in 2016. Therefore, FPL projects the implementation of an additional 684 MW at the generator of cost-effective DSM beyond FPL's DSM Goals.

III.E Transmission Plan

The transmission plan will allow for the reliable delivery of the required capacity and energy for FPL's retail and wholesale customers. The following table presents FPL's proposed future additions of 230 kV bulk transmission lines that must be certified under the Transmission Line Siting Act.

(1) Line Ownership	(2) Terminals (To)	(3) Terminals (From)	(4) Line Length CKT. Miles	(5) Commercial In-Service Date (Mo/Yr)	(6) Nominal Voltage (KV)	(7) Capacity (MVA)
FPL	St. Johns [1]	Pringle	26	Dec-08	230	759
FPL	Manatee	BobWhite	30	Dec-11	230	1190
FPL	Grove Area (TBD)	Sweatt	25	Jun-12	230	759

(1) Final order certifying the corridor was issued on April 21, 2006.

Table III.E.1: List of Proposed Power Lines

In addition, there will be transmission facilities needed to connect several of FPL's committed and projected capacity additions to the system transmission grid. These transmission facilities for the committed capacity additions at the Turkey Point and the WCEC sites, plus for the projected capacity additions at the FGPP site, are described on the following pages. Because the projected combined cycle capacity addition for 2015 is as-yet unsited, no transmission facilities information is provided for this unit.

III.E.1 Transmission Facilities for Turkey Point Unit #5

The work required to connect Turkey Point Unit #5 in 2007 with the FPL grid is projected to be as follows:

I. Substation:

1. Build new collector yard containing two collector busses with 5 breakers to connect the four combustion turbines (CTs) and one steam turbine (ST).
2. Construct two string busses to connect the collector busses and main switchyard.
3. Add five main step-up transformers (4-225 MVA, 1-560 MVA), one for each CT and one for the ST.
4. Add a new two breaker bay to connect the collector bus at the Turkey Point switchyard.
5. Add a second two breaker bay at the Turkey Point switchyard to connect the other collector bus.
6. Add relays and other protective equipment.
7. Expand site and relay vault for two new line terminals at Turkey Point switchyard.

II. Transmission:

1. Upgrade the Turkey Point-Galloway Tap 230kV transmission line section to 1430 Amps.
2. Upgrade the Turkey Point–McGregor-Florida City 230kV transmission line section to 1495 Amps.
3. Upgrade the Turkey Point-Miller 230kV transmission line section to 1430 Amps.
4. Upgrade the Miller-Killian 230kV transmission line section to 1430 Amps.

III.E.2 Transmission Facilities for West County Energy Center (WCEC) Unit #1

The work required to connect West County Energy Center (WCEC) Unit #1 in 2009 with the FPL grid is projected to be as follows:

I. Substation:

1. Build new collector yard containing two collector busses with 4 breakers to connect the three CTs and one ST.
2. Construct two string busses to connect the collector busses and main switchyard to Corbett 230 kV Substation.
3. Add four main step-up transformers (3-370 MVA, 1-580 MVA), one for each CT and one for the ST.
4. Add a new Bay #4 with 3 breakers at the Corbett 230 kV main switchyard. Connect one string buss from the collector yard and relocate the Alva 230 kV terminal from Bay #3 to new Bay #4.
5. Connect second collector string buss to Bay #3.
6. Add relays and other protective equipment.
7. Breaker replacements:
   Corbett Sub – Replace eight (8) 230 kV breakers
   Ranch Sub – Replace five (5) 138 kV breakers
   Midway Sub – Replace one (1) 230 kV breaker
   Levee Sub – Replace one (1) 230 kV breaker
   Dade Sub – Replace two (2) 138 kV breakers

II. Transmission:

1. No upgrades expected to be necessary at this time.

III.E.3 Transmission Facilities for West County Energy Center (WCEC) Unit #2

The work required to connect West County Energy Center (WCEC) Unit #2 in 2010 with the FPL grid is projected to be as follows:

I. Substation:

1. Build new collector yard containing two collector busses with 4 breakers to connect the three CTs, and one ST.
2. Construct two string busses to connect the collector busses and main switchyard to Corbett 500kV Substation.
3. Add four main step-up transformers (3-370 MVA, 1- 580 MVA) one for each CT, and one for the ST.
4. At Corbett Sub, install one breaker and relocate Martin #2 500 kV line from Bay 2S to Bay 2N. Install one West County 500 kv string bus into Bay 2S.
5. At Corbett Sub, install one breaker and second West County 500 kV string bus into Bay 1S.
6. Add relays and other protective equipment.
7. Breaker replacements:
   Dade Sub – Replace one (1) 138 kV breaker
   Levee Sub – Replace four (4) 230 kV breakers
   Midway Sub – Replace three (3) 230 kV breakers
   Ranch Sub – Replace one (1) 230 kV breaker

II. Transmission:

1. No upgrades expected to be necessary at this time.

III.E.4 Transmission Facilities for FGPP Unit #1

The work required to connect FGPP Unit #1 by 2013 with the FPL grid is projected to be as follows:

II. Substation:

1. Build new 500kV switchyard containing two bays with six breakers to connect the steam turbine and startup transformer.
2. Add two main step-up transformers (660 MVA each).
3. Build a new switching station with two 500kV bays, one 230kV bay, seven 500kV breakers and three 230kV breakers.
4. Add one 500/230kV, 750 MVA autotransformer bank.
5. Add relays and other protective equipment.

II. Transmission:

1. Build two 25 mile 500kV transmission lines connecting the switchyard to the switching station.
2. Build an additional 48 miles of 500kV transmission line to loop the existing Andytown-Orange River 500kV line into the new switching station.
3. Build an additional one mile of 230 kV transmission line to loop the Alva-Corbett 230 kV line into the new switching station.

III.E.5 Transmission Facilities for FGPP Unit #2

The work required to connect FGPP Unit #2 by 2014 with the FPL grid is projected to be as follows:

III. Substation:

1. Build new 500kV bay at the existing switchyard with 2 additional breakers to connect the coal unit and add a bus breaker to connect to connect the startup transformer.
2. Add two main step-up transformers (660 MVA each).
3. Build a new 500 kV bay at the existing switching station with two additional breakers to connect the new Levee 500 kV line
4. Andytown Substation – Remove the existing Levee #2 500 kV line terminal equipment
5. Add relays and other protective equipment.

II. Transmission:

1. Build an additional 74 miles of 500kV transmission line from the new switching station to Andytown 500kV station and disconnect the existing Andytown-Levee #2 500kV line from Andytown and connect to the new switching station.

III.F. Renewable Resources

FPL has been the leading Florida utility in examining ways to utilize renewable energy technologies to meet its customers' current and future needs. FPL has been involved since 1976 in renewable energy research and development and in facilitating the implementation of various technologies.

FPL assisted the Florida Solar Energy Center (FSEC) in the late 1970s in demonstrating the first residential solar photovoltaic (PV) system east of the Mississippi. This PV installation at FSEC's Brevard County location was in operation for over 15 years and provided valuable information about PV performance capabilities in Florida on both a daily and annual basis. FPL later installed a second PV system at the FPL Flagami substation in Miami. This 10-Kilowatt (kW) system was placed into operation in 1984. (The system was removed in 1990 to make room for substation expansion after the testing of this PV installation was completed.)

For a number of years, FPL maintained a thin-film PV test facility located at the FPL Martin Plant Site. The FPL PV test facility was used to test new thin-film PV technologies and to identify design, equipment, or procedure changes necessary to accommodate direct current electricity from PV facilities into the FPL system. Although this testing has ended, the site is now the home for PV capacity which was installed as a result of FPL's recent Green Pricing effort (which is discussed below).

In terms of utilizing renewable energy sources to meet its customers' needs, FPL initiated the first utility-sponsored conservation program in Florida designed to facilitate the implementation of solar technologies by its customers. FPL's Conservation Water Heating Program, first implemented in 1982, offered incentive payments to customers choosing solar water heaters. Before the program was ended (due to the fact that it was no longer projected to be cost-effective), FPL paid incentives to approximately 48,000 customers who installed solar water heaters.

In the mid-1980's, FPL introduced another renewable energy program, FPL's Passive Home Program. This program was created in order to broadly disseminate information about passive solar building design techniques which are most applicable in Florida's climate. As part of this program, three Florida architectural firms created complete construction blueprints for 6 passive homes with the assistance of the FSEC and FPL. These designs and blueprints were available to customers at a low cost. During its

existence, this program was popular and received a U.S. Department of Energy award for innovation. The program was eventually phased out due to a revision of the Florida Model Energy Building Code (Code). This revision was brought about in part by FPL's Passive Home Program. The revision incorporated into the Code one of the most significant passive design techniques highlighted in the program: radiant barrier insulation.

In early 1991, FPL received approval from the Florida Public Service Commission to conduct a research project to evaluate the feasibility of using small PV systems to directly power residential swimming pool pumps. This research project was completed with mixed results. Some of the performance problems identified in the test may be solvable, particularly when new pools are constructed. However, the high cost of PV, the significant percentage of sites with unacceptable shading, and various customer satisfaction issues remain as significant barriers to wide acceptance and use of this particular solar application.

More recently, FPL has analyzed the feasibility of encouraging utilization of PV in another, potentially much larger way. FPL's basic approach does not require all of its customers to bear PV's high cost, but allows customers who are interested in facilitating the use of renewable energy the means to do so. FPL's initial effort to implement this approach allowed customers to make voluntary contributions into a separate fund that FPL used to make PV purchases in bulk quantities. PV modules were then installed and delivered PV-generated electricity directly into the FPL grid. Thus, when sunlight is available, the PV-generated electricity displaces an equivalent amount of fossil fuel-generated electricity.

FPL's basic approach for this program, which has been termed Green Pricing, was initially discussed with the FPSC in 1994. FPL's efforts to implement this approach were then formally presented to the FPSC as part of FPL's DSM Plan in 1995 and FPL received approval from the FPSC in 1997 to proceed. FPL began the effort in 1998 and received approximately $89,000 in contributions (that significantly exceeded the goal of $70,000). FPL purchased the PV modules and installed them at FPL's Martin Plant site.

FPL initiated two new renewable efforts in 2000. FPL's first new initiative in 2000 was FPL's Photovoltaic Research, Development, and Education Project. This demonstration project's objectives were to: increase the public awareness of roof tile PV technologies, provide data to determine the durability of this technology and its impact on FPL's electric system, collect demand and energy data to better understand the coincidence between PV roof tile system output and FPL's system peaks (as well as the total annual energy

capabilities of roof tile PV systems), and assess the homeowner's financial benefits and costs of PV roof tile systems. This project was completed in 2003.

The second effort initiated in 2000 was the Green Energy Project. The objectives of this Project were to: determine customer interest in an on–going renewable energy program, determine their price responsiveness and views on the different renewable technologies, and identify potential renewable energy supply sources that would meet the forecasted customer demand for this type of product. FPL conducted both customer research and issued a Request for Proposals (RFP) in 2001 to solicit proposals to potentially supply energy only from new renewable sources. This Project formed the basis for FPL's Green Power Pricing Research Project, and then led to FPL's Business Green Energy Research Project.

Both the Green Power Pricing Research Project and the Business Green Energy Research Project examined the feasibility of purchasing tradable renewable energy credits generated from new renewable resources including solar-powered technologies, biomass energy, landfill methane, wind energy, low impact hydroelectric energy, and/or other renewable sources. Customers who participate are charged higher premiums for purchasing the tradable renewable energy credits associated with electric energy generated by these sources.

Development of the Green Pricing Research Project was completed and filed with the FPSC in August 2003. As part of this process, a supply contract was put into place that allows FPL to match supply with demand for green energy. Tradable renewable energy credits are used to supply the renewable benefits required of this project. The FPSC approved the program on December 2, 2003 with program implementation during the first quarter of 2004. The project was marketed to customers as FPL's Sunshine Energy® program. As part of the project, FPL made a commitment that 150 kW of solar capacity would be put in place for every 10,000 program participants. The Business Green Energy Research Project focused on determining the interest and needs for business customers in this area. In 2006 FPL petitioned the FPSC for approval to make the Green Pricing Research Project a permanent program and expand eligibility to business customers. This approval was granted in the fourth quarter of 2006.

As of the end of 2006, FPL had 28,742 participants in the program. FPL has selected Rothenbach Park in Sarasota as the location to develop its first PV facility as a direct result of FPL's Sunshine Energy® renewable program. The 250 kilowatt FPL Solar Array

at Rothenbach Park will be the largest solar facility in the state of Florida and one of the largest in the southeast.

The solar array will be mounted on the ground and will be visible from the road. The solar facility will be built with 1,200 photovoltaic solar panels and will be more than 28,000 square feet, about half the size of a football field. Each panel will be about 31 inches wide and 63 inches long. Construction on the new solar facility is scheduled to be completed in Summer 2007. FPL is currently investigating locations for additional solar sites when the next 150 kW PV commitment level in the Sunshine Energy® program is reached.

Several additional solar initiatives are currently under development. A residential community in the Naples/Ft Myers area is building 90 homes with 2 kW solar PV units on each home. A 2 kW demonstration site at the Miami Science Museum will be completed by 1st quarter 2007. In connection with SunSmart Schools, 2 kW PV systems are being installed in 4 schools by the end of March 2007. This activity is a continuation of previous FPL activities involving PV installations at schools. In 2003 as part of the State of Florida's PV for Schools program, FPL worked with three schools to install 4.8 kW PV systems. These schools were:

- A.D. Henderson Elementary & Middle School in Boca Raton
- Harlee Middle School in Bradenton
- Florida Gulf Coast University in Ft. Myers

FPL has also facilitated renewable energy projects (facilities which burn bagasse, waste wood, municipal waste, etc.). Firm capacity and energy and as-available energy have been purchased by FPL from these developers. (Please refer to Tables I.B.1, I.B.2, and Table I.C.1). With recent legislative initiatives and new FPSC rules, FPL is seeing a renewed interest in the development of additional renewable energy projects and is actively working with developers on a number of potential projects.

Additionally, FPL is actively investigating a site for a demonstration wind generation project in Florida. FPL has conducted a survey of wind resources and is considering potential sites in both the Canaveral and Sarasota areas. The project size is estimated to be in the 10 MW range. FPL is also an active supporter of the recently established Center for Ocean Energy Engineering at Florida Atlantic University which aims to study the potential for ocean current energy conversion.

FPL has been investigating fuel cell technologies through monitoring of industry trends, discussions with manufacturers, and direct field trials. From 2002 through the end of 2005, FPL conducted field trials and demonstration projects of Proton Exchange Membrane (PEM) fuel cells with the objectives of serving customer end-uses while evaluating the technical performance, reliability, economics, and relative readiness of the PEM technology. The demonstration projects were conducted in partnership with customers and included 5 locations. The research projects were useful to FPL in identifying specific issues that can occur in field applications and the current commercial viability of this technology. FPL will continue to monitor the progress of these technologies and conduct additional field evaluations as significant developments in the fuel cell technologies occur.

In support of Florida Administrative Code Rule 25-6.065, Interconnection of Small Photovoltaic Systems, FPL works with customers to interconnect customer-owned PV systems. Through February 2007, 29 residential customer systems and 2 business customer systems have been interconnected. The total connect kW from these 31 systems is 108 kW. The residential customer average capacity per installation is 3.38 kW and the business customer average capacity per installation is 5.15 kW.

III.G FPL's Fuel Mix and Fuel Price Forecasts

1. FPL's Fuel Mix

Until the mid-1980s, FPL relied primarily on a combination of fuel oil, natural gas, and nuclear energy to generate electricity with significant reliance on oil–fired generation. In the early 1980s FPL began to purchase "coal-by-wire." In 1987, coal was first added to the fuel mix through FPL's partial ownership and additional purchases from the St. Johns River Power Park (SJRPP). This allowed FPL to meet its customers' energy needs with a more diversified mix of energy sources. Additional coal resources were added with the partial acquisition (76%) of Scherer Unit #4 in 1989. Starting in 1997, petroleum coke was added to the fuel mix as a blend stock with coal at SJRPP.

The trend since the early 1990's has been a steady increase in the amount of natural gas that is used by FPL to provide electricity due, in part, to the introduction of highly efficient and cost-effective combined cycle generating units and the ready availability of natural gas. This planning document reflects an evolution in that trend in recognition that although efficient gas-fired generation continues to provide significant benefits to FPL's customers, adding natural gas-fired additions exclusively would, in the long term, create an unbalanced generation portfolio. FPL will add a new gas-fired CC unit in 2007 at Turkey Point and two new gas-fired CC units at the West County Energy Center in 2009 and 2010. These CC units will provide highly efficient generation that will benefit the entire FPL system by reducing transmission-related costs, mitigate the load-to-generation imbalance in Southeast Florida, and dramatically improve the overall system generation efficiency. However, FPL plans to complement these additions with two advanced technology coal units by 2013 and 2014, respectively. The addition of coal-fueled generation will maintain fuel supply diversity and assist in stabilizing fuel cost volatility through diversification.

FPL's future resource planning work will remain focused on identifying and evaluating alternatives that would maintain and/or enhance FPL's long-term fuel diversity. These fuel diverse alternatives may include: the purchase of power from new coal-based facilities, obtaining access to diversified sources of natural gas such as liquefied natural gas (LNG), preserving FPL's ability to utilize fuel oil at its existing units, and in the longer term, increased utilization of nuclear energy options. The evaluation of the feasibility and cost-effectiveness of these, and other possible alternatives, will be an ongoing part of future planning cycles.

FPL's current use of various fuels to supply energy to customers, plus a projection of this "fuel mix" through 2016 based on the resource plan presented in this document, is presented in Schedules 5, 6.1, and 6.2 later in this chapter.

2. Fuel Price Forecasts

Fossil fuel price forecasts, and the resulting projected price differentials between fuels, are major drivers used in evaluating alternatives for meeting future generating capacity needs. FPL's forecasts are generally consistent with other published contemporary forecasts.

a) Fuel Price Forecast Methodology

Future oil and natural gas prices, and to a lesser extent, coal and petroleum coke prices, are inherently uncertain due to a significant number of unpredictable and uncontrollable drivers that influence the short- and long-term price of oil, natural gas, coal, and petroleum coke. These drivers include: (1) current and projected worldwide demand for crude oil and petroleum products; (2) current and projected worldwide refinery capacity/production; (3) expected worldwide economic growth, in particular in China and the other Pacific Rim countries; (4) Organization of Petroleum Exporting Countries (OPEC) production and the availability of spare OPEC production capacity and the assumed growth in spare OPEC production capacity; (5) non-OPEC production and expected growth in non-OPEC production; (6) the geopolitics of the Middle East, West Africa, the Former Soviet Union, Venezuela, etc., as well as, the uncertainty and impact upon worldwide energy consumption related to U. S. and worldwide environmental legislation, politics, etc.; (7) current and projected North American natural gas demand; (8) current and projected U.S., Canadian, and Mexican natural gas production; (9) the worldwide supply and demand for LNG; and (10) the growth in solid fuel generation on a U. S. and worldwide basis.

The inherent uncertainty and unpredictability in these factors today and tomorrow clearly underscores the need to develop a set of plausible oil, natural gas, and solid fuel (coal and petroleum coke) price scenarios that will bound a reasonable set of long-term price outcomes. In this light, FPL developed Low, Medium, and High price forecasts for oil, natural gas, and solid fuel, and a Shocked Medium (Shocked) price forecast for oil and natural gas which were used in the analyses of the FGPP advanced technology coal units.

FPL's Medium price forecast methodology is consistent for oil and natural gas. For oil and natural gas commodity prices, FPL's Medium price forecast applies the following methodology: (1) for 2006 through 2008, the methodology used the October 3, 2006 forward curve for New York Harbor 1% sulfur heavy oil, U. S. Gulf Coast 1% sulfur heavy oil, and Henry Hub natural gas commodity prices; (2) for the next two years (2009 and 2010), FPL used a 50/50 blend of the October 3, 2006 forward curve and monthly projections from The PIRA Energy Group; (3) for the 2011 through 2020 period, FPL used the annual projections from The PIRA Energy Group, and (4) for the period beyond 2020, recognizing that prices cannot increase indefinitely and that significantly high prices have created, and will continue to create, technological and economic opportunities for commodity substitution in the energy markets, FPL applied the annual rate of increase in the delivered price of solid fuel to the commodity cost of oil and natural gas. In addition to the development of oil and natural gas commodity prices, nominal price forecasts also were prepared for oil and natural gas transportation costs. The addition of commodity and transportation forecasts resulted in delivered price forecasts.

FPL's Medium price forecast methodology is also consistent for coal and petroleum coke prices. Coal and petroleum coke prices were based upon the following approach: (1) the price forecasts for Central Appalachian coal (CAPP), South American coal, and petroleum coke were provided by JD Energy; (2) the marine transportation rates from the loading port for coal and petroleum coke to an import terminal were also provided by JD Energy; (3) the Terminal Throughput Fee was based on a range of offers from comparable facilities throughout the Southeast U.S.; (4) the rail transportation rates from CAPP and from the import terminal facility to FGPP were based on the proposed rail transportation rates as of October 3, 2006. In order to achieve the maximum fuel supply diversity and delivery flexibility for FPL's customers, FPL assumed that the delivered price of solid fuel to the FGPP units would be a mix of 40% Central Appalachian coal, 40% South American coal, and 20% petroleum coke. The coal price forecast for FPL's existing coal plants at SJRPP and Plant Scherer assume the continuation of the existing mine-mouth and transportation contracts until expiration, along with the purchase of spot coal, to meet generation requirements.

The development of FPL's Low and High price forecasts for oil, natural gas, coal, and petroleum coke prices were based upon the historical relationship of prices realized by FPL's customers compared to the average for the 2000 through 2005 time frame. FPL developed these forecasts to account for the uncertainty which exists within each

commodity as well as across commodities. These forecasts reflect a range of reasonable forecast outcomes.

The development of the Shocked Medium (Shocked) price forecast was based on the same methodology as the Low and High price forecasts described above. The shock was applied only to the oil and natural gas prices through 2016. In 2017, FPL averaged the Medium price forecast with the Shocked price forecast. From 2018 forward, all commodity prices are the same as in the Medium price forecast. FPL developed the Shocked price forecast as a sensitivity to show the impact of what a significant price increase in oil and natural gas could have on the evaluation of the FGPP advanced technology coal units.

FPL's four long-term oil, natural gas, coal, and petroleum coke price forecasts are reasonable and necessary for the analyses of the FGPP units. FPL's set of four fuel price forecasts bound the projected range of future forecast outcomes based on the actual range of prices realized by FPL's customers during the 2000 through 2005 period. During this period of time, all commodities showed significant variability, including periods of low and high prices, and periods of low and high price differentials between commodities, on both a domestic and worldwide basis.

Schedule 5
Fuel Requirements [1/]

Fuel Requirements	Units	Actual 2/ 2005	2006	Forecasted 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(1) Nuclear	Trillion BTU	235	258	254	273	269	268	273	270	268	273	269	269
(2) Coal	1,000 TON	3,098	3,367	4,034	3,668	3,986	3,686	3,972	3,806	5,454	8,259	9,400	9,428
(3) Residual (FO6)- Total	1,000 BBL	30,217	15,297	21,471	19,313	10,650	9,151	10,350	13,460	11,505	9,396	6,722	9,482
(4) Steam	1,000 BBL	30,217	15,297	21,471	19,313	10,650	9,151	10,350	13,460	11,505	9,396	6,722	9,482
(5) Distillate (FO2)- Total	1,000 BBL	344	40	0	4	210	1,827	2,289	2,753	2,535	1,891	1,057	1,949
(6) Steam	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7) CC	1,000 BBL	194	19	0	0	210	1798	2285	2753	2525	1889	1056	1947
(8) CT	1,000 BBL	150	21	0	4	0	28	4	0	10	2	1	2
(9) Natural Gas -Total	1,000 MCF	345,851	437,700	407,219	438,913	516,463	552,586	565,385	583,631	584,021	562,208	587,673	621,167
(10) Steam	1,000 MCF	44,167	91,555	23,856	24,583	32,439	36,804	25,072	36,944	34,937	28,802	27,683	30,608
(11) CC	1,000 MCF	296,076	341,229	380,475	410,978	480,782	514,915	539,599	544,474	548,261	532,856	559,390	588,753
(12) CT	1,000 MCF	5,608	4,916	2,888	3,352	3,242	867	714	2,213	823	549	601	1,806

1/ Reflects fuel requirements for FPL only.
2/ Source: A Schedules.

Note: As discussed on the preceding pages, FPL utilized four fuel cost forecasts in its 2006 and early 2007 resource planning work. The projected values shown on this form are based on one of these forecasts. For simplicity's sake, FPL is providing only one set of projected values in this document.

Schedule 6.1
Energy Sources

	Energy Sources	Units	Actual 1/ 2005	2006	Forecasted 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(1)	Annual Energy Interchange 2/	GWH	10,221	10,440	11,285	11,294	11,267	10,967	10,768	10,815	10,783	10,784	10,388	7,677
(2)	Nuclear	GWH	21,406	23,533	22,754	24,455	24,110	24,042	24,467	24,192	24,043	24,467	24,121	24,114
(3)	Coal	GWH	5,765	6,168	7,610	6,953	7,530	7,011	7,504	7,223	11,885	19,793	23,014	23,084
(4)	Residual(FO6) -Total	GWH	19,069	9,586	14,328	12,890	7,081	6,071	6,852	8,909	7,612	6,214	4,445	6,269
(5)	Steam	GWH	19,069	9,586	14,328	12,890	7,081	6,071	6,852	8,909	7,612	6,214	4,445	6,269
(6)	Distillate(FO2) -Total	GWH	186	26	0	1	164	1,401	1,782	2,181	1,975	1,471	820	1,558
(7)	Steam	GWH	0	0	0	0	0	0	0	0	0	0	0	0
(8)	CC	GWH	123	9	0	0	164	1,393	1,781	2,181	1,971	1,470	820	1,558
(9)	CT	GWH	63	17	0	1	0	8	1	0	3	1	0	0
(10)	Natural Gas -Total	GWH	47,114	56,985	55,578	60,042	70,337	75,578	78,058	79,917	80,135	77,424	81,208	85,757
(11)	Steam	GWH	4,253	8,689	2,322	2,398	3,133	3,546	2,406	3,559	3,369	2,776	2,676	2,948
(12)	CC	GWH	42,422	47,871	52,941	57,281	66,850	71,953	75,585	76,152	76,690	74,596	78,476	82,640
(13)	CT	GWH	439	424	315	363	354	79	67	206	77	51	57	169
(14)	Other 3/	GWH	7,541	6,399	5,995	6,390	5,781	5,430	5,335	5,802	5,946	6,105	6,296	6,096
	Net Energy For Load 4/	GWH	111,301	113,137	117,551	122,024	126,270	130,499	134,766	139,038	142,379	146,257	150,291	154,556

1/ Source: A Schedules
2/ The projected figures are based on estimated energy purchases from SJRPP and the Southern Companies.
3/ Represents a forecst of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, net of Economy and other Power Sales.
4/ Net Energy For Load is also shown in Schedule 2.3.

Note: As discussed on the preceding pages, FPL utilized four fuel cost forecasts in its 2006 and early 2007 resource planning work. The projected values shown on this form are based on one of these forecasts. For simplicity's sake, FPL is providing only one set of projected values in this document.

Schedule 6.2
Energy Sources % by Fuel Type

	Energy Source	Units	Actual 1/ 2005	Actual 1/ 2006	Forecasted 2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
(1)	Annual Energy Interchange 2/	%	9.2	9.2	9.6	9.3	8.9	8.4	8.0	7.8	7.6	7.4	6.9	5.0
(2)	Nuclear	%	19.2	20.8	19.4	20.0	19.1	18.4	18.2	17.4	16.9	16.7	16.0	15.6
(3)	Coal	%	5.2	5.5	6.5	5.7	6.0	5.4	5.6	5.2	8.3	13.5	15.3	14.9
(4)	Residual (FO6) -Total	%	17.1	8.5	12.2	10.6	5.6	4.7	5.1	6.4	5.3	4.2	3.0	4.1
(5)	Steam	%	17.1	8.5	12.2	10.6	5.6	4.7	5.1	6.4	5.3	4.2	3.0	4.1
(6)	Distillate (FO2) -Total	%	0.2	0.0	0.0	0.0	0.1	1.1	1.3	1.6	1.4	1.0	0.5	1.0
(7)	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
(8)	CC	%	0.1	0.0	0.0	0.0	0.1	1.1	1.3	1.6	1.4	1.0	0.5	1.0
(9)	CT	%	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(10)	Natural Gas -Total	%	42.3	50.4	47.3	49.2	55.7	57.9	57.9	57.5	56.3	52.9	54.0	55.5
(11)	Steam	%	3.8	7.7	2.0	2.0	2.5	2.7	1.8	2.6	2.4	1.9	1.8	1.9
(12)	CC	%	38.1	42.3	45.0	46.9	52.9	55.1	56.1	54.8	53.9	51.0	52.2	53.5
(13)	CT	%	0.4	0.4	0.3	0.3	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.1
(14)	Other 3/	%	6.8	5.7	5.1	5.2	4.6	4.2	4.0	4.2	4.2	4.2	4.2	3.9
			100	100	100	100	100	100	100	100	100	100	100	100

1/ Source: A Schedules.
2/ *The projected figures are based on estimated energy purchases from SJRPP and the Southern Companies.*
3/ Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc.

Note: As discussed on the preceding pages, FPL utilized four fuel cost forecasts in its 2006 and early 2007 resource planning work. The projected values shown on this form are based on one of these forecasts. For simplicity's sake, FPL is providing only one set of projected values in this document.

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)	(13)	(14)
Year	Total Installed [1/] Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Capacity Available [2/] MW	Total Peak [3/] Demand MW	DSM [4/] MW	Firm Summer Peak Demand MW	Reserve Margin Before Maintenance [5/] MW	Reserve Margin Before Maintenance [5/] % of Peak	Scheduled Maintenance MW	Reserve Margin After Maintenance [6/] MW	Reserve Margin After Maintenance [6/] % of Peak
2007	22,123	2,255	0	738	25,116	22,259	1,768	20,491	4,625	23	0	4,625	22.6
2008	22,150	2,255	0	738	25,143	22,770	1,908	20,862	4,281	21	0	4,281	20.5
2009	23,370	1,824	0	687	25,881	23,435	2,034	21,401	4,480	21	0	4,480	20.9
2010	24,589	1,467	0	640	26,696	24,003	2,146	21,857	4,839	22	0	4,839	22.1
2011	24,589	1,634	0	595	26,818	24,612	2,264	22,348	4,470	20	0	4,470	20.0
2012	24,589	2,111	0	595	27,295	25,115	2,388	22,727	4,568	20	0	4,568	20.1
2013	25,569	1,511	0	595	27,675	25,590	2,516	23,074	4,601	20	0	4,601	19.9
2014	26,549	1,311	0	595	28,455	26,100	2,651	23,449	5,006	21	0	5,006	21.3
2015	27,768	1,311	0	595	29,674	26,772	2,790	23,982	5,692	24	0	5,692	23.7
2016	27,768	930	0	595	29,293	27,410	2,910	24,500	4,793	20	0	4,793	19.6

1/ Capacity additions and changes projected to be in-service by June 1st are considered to be available to meet Summer peak loads which are forecasted to occur during August of the year indicated. All values are Summer net MW.

2/ Total Capacity Available = Col.(2) + Col.(3) - Col.(4) + Col.(5).

3/ These forecasted values reflect the 2006 load forecast without DSM.

4/ The DSM MW shown represent cumulative load management capability plus incremental conservation from 1/2006-on for use with the 2006 load forecast. They are not included in total additional resources but reduce the peak load upon which Reserve Margin calculations are based.

5/ Margin (%) Before Maintenance = Col.(10) / Col.(9)

6/ Margin (%) After Maintenance = Col.(13) / Col.(9)

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)	(13)	(14)
Year	Total Installed [1/] Capability MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Capacity Available [2/] MW	Total Peak [3/] Demand MW	DSM [4/] MW	Firm Winter Peak Demand MW	Reserve Margin Before Maintenance [5/] MW	% of Peak	Scheduled Maintenance MW	Reserve Margin After Maintenance [6/] MW	% of Peak
2006/07	22,294	3,124	0	738	26,156	22,247	1,555	20,692	5,464	26.4	0	5,464	26.4
2007/08	23,503	2,288	0	738	26,529	22,627	1,649	20,978	5,551	26.5	0	5,551	26.5
2008/09	23,531	1,962	0	738	26,231	23,115	1,750	21,365	4,866	22.8	0	4,866	22.8
2009/10	24,866	1,501	0	687	27,054	23,587	1,814	21,773	5,281	24.3	0	5,281	24.3
2010/11	26,201	1,500	0	595	28,296	24,047	1,883	22,164	6,132	27.7	0	6,132	27.7
2011/12	26,201	1,500	0	595	28,296	24,498	1,954	22,544	5,752	25.5	0	5,752	25.5
2012/13	26,201	1,320	0	595	28,116	24,952	2,028	22,924	5,192	22.6	0	5,192	22.6
2013/14	27,191	1,320	0	595	29,106	25,416	2,106	23,310	5,796	24.9	0	5,796	24.9
2014/15	28,181	1,320	0	595	30,096	26,048	2,188	23,860	6,236	26.1	0	6,236	26.1
2015/16	29,516	930	0	595	31,041	26,692	2,264	24,428	6,613	27.1	0	6,613	27.1

1/ Capacity additions and changes projected to be in-service by January 1st are considered to be available to meet Winter peak loads which are forecast to occur during January of the "second" year indicated. All values are Winter net MW.

2/ Total Capacity Available = Col.(2) + Col.(3) - Col.(4) + Col.(5).

3/ These forecasted values reflect the 2006 load forecast without DSM.

4/ The DSM MW shown represent cumulative load management capability plus incremental conservation from 1/2006-on for use with the 2006 load forecast. They are not included in total additional resources but reduce the peak load upon which Reserve Margin calculations are based.

5/ Margin (%) Before Maintenance = Col.(10) / Col.(9)

6/ Margin (%) After Maintenance = Col.(13) / Col.(9)

Schedule 8
Planned And Prospective Generating Facility Additions And Changes

(1)	(2)	(3)	(4)	(5)	(5)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
				Fuel		Fuel Transport		Const.	Comm.	Expected	Gen. Max.	Net Capability		
Plant Name	Unit No.	Location	Unit Type	Pri.	Alt.	Pri.	Alt.	Start Mo./Yr.	In-Service Mo./Yr.	Retirement Mo./Yr.	Nameplate KW	Winter MW	Summer MW	Status
ADDITIONS/ CHANGES														
2007														
Cape Canaveral	1	Brevard County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	5	3	OT
Cape Canaveral	2	Brevard County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	5	3	OT
Cutler	5	Miami Dade County	ST	NG	No	PL	No	Unknown	Jun-07	Unknown	75,000	(2)	(3)	OT
Cutler	6	Miami Dade County	ST	NG	No	PL	No	Unknown	Jun-07	Unknown	161,500	(29)	(32)	OT
Ft. Myers	2	Lee County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	1,701,890	11	1	OT
Ft. Myers	3	Lee County	CT	NG	FO2	PL	PL	Unknown	Jun-07	Unknown	376,380	8	2	OT
Lauderdale	4	Broward County	CC	NG	FO2	PL	PL	Unknown	Jun-07	Unknown	526,250	(2)	(8)	OT
Lauderdale	5	Broward County	CC	NG	FO2	PL	PL	Unknown	Jun-07	Unknown	526,250	(2)	(8)	OT
Port Everglades	1	City of Hollywood	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	247,775	(2)	(1)	OT
Port Everglades	2	City of Hollywood	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	247,775	(2)	(1)	OT
Port Everglades	3	City of Hollywood	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	7	6	OT
Port Everglades	4	City of Hollywood	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	6	3	OT
Riveria	3	City of Riviera Beach	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	310,420	(2)	(1)	OT
Riveria	4	City of Riviera Beach	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	310,420	(5)	(4)	OT
Manatee	1	Manatee County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	863,300	1	6	OT
Manatee	2	Manatee County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	863,300	1	6	OT
Manatee	3	Manatee County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	1,224,510	7	10	OT
Martin	1	Martin County	ST	FO6	NG	PL	PL	Unknown	Jun-07	Unknown	934,500	(4)	(1)	OT
Martin	2	Martin County	ST	FO6	NG	PL	PL	Unknown	Jun-07	Unknown	934,500	(5)	(8)	OT
Martin	3	Martin County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	612,000	(20)	(18)	OT
Martin	4	Martin County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	612,000	(19)	(17)	OT
Martin	8	Martin County	CC	NG	FO2	PL	PL	Unknown	Jun-07	Unknown	1,224,510	25	11	OT
Putnam	1	Putnam County	CC	NG	FO2	PL	WA	Unknown	Jun-07	Unknown	290,004	3	–	OT
Putnam	2	Putnam County	CC	NG	FO2	PL	WA	Unknown	Jun-07	Unknown	290,004	3	–	OT
Sanford	3	Volusia County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	156,250	2	–	OT
Sanford	4	Volusia County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	1,188,900	(8)	8	OT
Sanford	5	Volusia County	CC	NG	No	PL	No	Unknown	Jun-07	Unknown	1,188,900	(2)	14	OT
SJRPP	1	Duval County	BIT	BIT	Pet	RR	WA	Unknown	Jun-07	Unknown	135,918	5	2	OT
SJRPP	2	Duval County	BIT	BIT	Pet	RR	WA	Unknown	Jun-07	Unknown	135,918	5	2	OT
Scherer	4	Monroe, GA	BIT	BIT	No	RR	No	Unknown	Jun-07	Unknown	680,368	14	12	OT
Turkey Point	1	Miami Dade County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	3	2	OT
Turkey Point	2	Miami Dade County	ST	FO6	NG	WA	PL	Unknown	Jun-07	Unknown	402,050	9	8	OT
Turkey Point CC	5	Miami Dade County	CC	NG	FO2	PL	PL	Jan-05	Jun-07	Unknown	1,223,000	—	1,144	V
									2007 Changes/Additions Total:			**16**	**1,142**	
2008														
Cape Canaveral	1	Brevard County	ST	FO6	NG	WA	PL	Unknown	Apr-65	Unknown	402,050	(1)	(1)	OT
Cape Canaveral	2	Brevard County	ST	FO6	NG	WA	PL	Unknown	May-69	Unknown	402,050	(1)	(1)	OT
Cutler	5	Miami Dade County	ST	NG	No	PL	No	Unknown	Nov-54	Unknown	75,000	3	3	OT
Cutler	6	Miami Dade County	ST	NG	No	PL	No	Unknown	Jul-55	Unknown	161,500	21	21	OT
Martin	3	Martin County	CC	NG	No	PL	No	Unknown	Feb-94	Unknown	612,000	12	11	OT
Martin	4	Martin County	CC	NG	No	PL	No	Unknown	Apr-94	Unknown	612,000	12	11	OT
Riviera	4	City of Riviera Beach	ST	FO6	NG	WA	PL	Unknown	Mar-63	Unknown	310,420	(2)	(3)	OT
Scherer	4	Monroe, GA	BIT	BIT	No	RR	No	Unknown	Jul-89	Unknown	680,368	(10)	(10)	OT
Turkey Point	2	Miami Dade County	ST	FO6	NG	WA	PL	Unknown	Apr-68	Unknown	402,050	(6)	(4)	OT
Turkey Point CC	5	Miami Dade County	CC	NG	FO2	PL	PL	Jan-05	Jun-07	Unknown	1,223,000	1,181	—	V
									2008 Changes/Additions Total:			**1,209**	**27**	

Note 1: The Winter Total MW value consists of all generation additions and changes achieved by January. The Summer Total MW value consists of all generation additions and changes achieved by June. All other MW will be picked up in the following year.

Note 2: Changes shown include different ratings than shown in Schedule 1 due solely to ambient temperature consistent with those in FPL 's peak load forecast to maintain consistency in Reserve Margin calculation.

Schedule 8

Planned And Prospective Generating Facility Additions And Changes

(1)	(2)	(3)	(4)	(5)	(5)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
				Fuel		Fuel Transport		Const.	Comm.	Expected	Gen. Max.	Net Capability		
Plant Name	Unit No.	Location	Unit Type	Pri.	Alt.	Pri.	Alt.	Start Mo./Yr.	In-Service Mo./Yr.	Retirement Mo./Yr.	Nameplate KW	Winter MW	Summer MW	Status
ADDITIONS/ CHANGES														
2009														
Cutler	5	Miami Dade County	ST	NG	No	PL	No	Unknown	Nov-54	Unknown	75,000	(1)	--	OT
Port Everglades	3	City of Hollywood	ST	FO6	NG	WA	PL	Unknown	Jul-64	Unknown	402,050	3	--	OT
Riviera	3	City of Riviera Beach	ST	FO6	NG	WA	PL	Unknown	Jun-62	Unknown	310,420	1	--	OT
Martin	1	Martin County	ST	FO6	NG	PL	PL	Unknown	Dec-80	Unknown	934,500	5	--	OT
Martin	2	Martin County	ST	FO6	NG	PL	PL	Unknown	Jun-81	Unknown	934,500	5	--	OT
Martin	3	Martin County	CC	NG	No	PL	No	Unknown	Feb-94	Unknown	612,000	1	1	OT
Manatee	1	Manatee County	ST	FO6	NG	WA	PL	Unknown	Dec-77	Unknown	863,300	7	--	OT
Manatee	2	Manatee County	CC	NG	No	PL	No	Unknown	Jun-05	Unknown	1,224,510	7	--	OT
West County Combined Cycle	1	Palm Beach County	CC	NG	FO2	PL	PL	Jan-07	Jun-09	Unknown	Unknown	--	1,219	U
									2009 Changes/Additions Total:			**28**	**1,220**	
2010														
West County Combined Cycle	1	Palm Beach County	CC	NG	FO2	PL	PL	Jan-07	Jun-09	Unknown	Unknown	1,335	--	U
West County Combined Cycle	2	Palm Beach County	CC	NG	FO2	PL	PL	Jan-08	Jun-10	Unknown	Unknown	--	1,219	U
									2010 Changes/Additions Total:			**1,335**	**1,219**	
2011														
West County Combined Cycle	2	Palm Beach County	CC	NG	FO2	PL	PL	Jan-08	Jun-10	Unknown	Unknown	1,335	--	U
									2011 Changes/Additions Total:			**1,335**	**0**	
2012														
									2012 Changes/Additions Total:			**0**	**0**	
2013														
Glades Power Park	1	Glades County	BIT	BIT	No	RR	No	Jan-09	Jun-13	Unknown	Unknown	--	980	P
									2013 Changes/Additions Total:			**0**	**980**	
2014														
Glades Power Park	1	Glades County	BIT	BIT	No	RR	No	Jan-09	Jun-13	Unknown	Unknown	990	--	P
Glades Power Park	2	Glades County	BIT	BIT	No	RR	No	Jan-10	Jun-14	Unknown	Unknown	--	980	
									2014 Changes/Additions Total:			**990**	**980**	
2015														
Glades Power Park	2	Glades County	BIT	BIT	No	RR	No	Jan-10	Jun-14	Unknown	Unknown	990	--	P
South Florida 3x1 G CC	1	Unknown	CC	NG	FO2	PL	PL	Jan-13	Jun-15	Unknown	Unknown	--	1,219	P
									2015 Changes/Additions Total:			**0**	**1,219**	
2016														
South Florida 3x1 G CC	1	Unknown	CC	NG	FO2	PL	PL	Jan-13	Jun-15	Unknown	Unknown	1,335	--	P
									2016 Changes/Additions Total:			**1,335**	**0**	

Note 1: The Winter Total MW value consists of all generation additions and changes achieved by January. The Summer Total MW value consists of *all* generation additions and changes achieved by June. All other MW will be picked up in the following year.

Note 2: Changes shown include different ratings than shown in Schedule 1 *due solely to ambient temperature consistent with those in* FPL 's peak load forecast to maintain consistency in Reserve Margin calculation.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Turkey Point Combined Cycle Unit # 5

(2) **Capacity**
a. Summer 1,144 MW
b. Winter 1,181 MW

(3) **Technology Type:** Combined Cycle

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2005
b. Commercial In-service date: 2007

(5) **Fuel**
a. Primary Fuel: Natural Gas
b. Alternate Fuel: Distillate

(6) **Air Pollution and Control Strategy:** Natural Gas, Dry Low No_x Combustors, SCR 0.0015% S. Distillate, & Water Injection on Distillate

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** 11,000 Acres

(9) **Construction Status:** V Under Construction, more than 50% complete

(10) **Certification Status:** Certified

(11) **Status with Federal Agencies:** Certified

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	2%	
Forced Outage Factor (FOF):	1%	
Equivalent Availability Factor (EAF):	97%	(Base & Duct Firing Operation)
Resulting Capacity Factor (%):	Approx. 97%	(First Base OperationYear)
Average Net Operating Heat Rate (ANOHR):	6,835 Btu/kWh	(Base Operation)
Base Operation 75F,100%		

(13) **Projected Unit Financial Data *,****

Book Life (Years):	25 years
Total Installed Cost (2007 $/kW):	507
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2007 $kW-Yr)	10.06
Variable O&M ($/MWH): (2007 $/MWH)	0.13
K Factor:	1.5699

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement, but not firm gas transportation costs.

NOTE: Total installed cost includes gas expansion, transmission interconnection and integration, escalation, and AFUDC.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** West County Energy Center Combined Cycle Unit # 1

(2) **Capacity**
a. Summer 1,219 MW
b. Winter 1,335 MW

(3) **Technology Type:** Combined Cycle

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2007
b. Commercial In-service date: 2009

(5) **Fuel**
a. Primary Fuel: Natural Gas
b. Alternate Fuel: Distillate

(6) **Air Pollution and Control Strategy:** Natural Gas, Dry Low No_x Combustors, SCR 0.0015% S. Distillate, & Water Injection on Distillate

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** 220 Acres

(9) **Construction Status:** U (Under construction, less than or equal to 50% complete)

(10) **Certification Status:** U (Under construction, less than or equal to 50% complete)

(11) **Status with Federal Agencies:** U (Under construction, less than or equal to 50% complete)

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	2.1%	
Forced Outage Factor (FOF):	1.1%	
Equivalent Availability Factor (EAF):	96.8%	(Base & Duct Firing Operation)
Resulting Capacity Factor (%):	Approx. 97%	(First Year Base Operation)
Average Net Operating Heat Rate (ANOHR):	6,582 Btu/kWh	(Base Operation)
Base Operation 75F,100%		

(13) **Projected Unit Financial Data *,****

Book Life (Years):	25 years
Total Installed Cost (2009 $/kW):	565
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2009 $kW-Yr)	11.65
Variable O&M ($/MWH): (2009 $/MWH)	0.138
K Factor:	1.5834

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement, but not firm gas transportation costs.

NOTE: Total installed cost includes gas expansion, transmission interconnection and integration, escalation, and AFUDC.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** West County Energy Center Combined Cycle Unit # 2

(2) **Capacity ***
a. Summer 1,219 MW
b. Winter 1,335 MW

(3) **Technology Type:** Combined Cycle

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2008
b. Commercial In-service date: 2010

(5) **Fuel**
a. Primary Fuel — Natural Gas
b. Alternate Fuel — Distillate

(6) **Air Pollution and Control Strategy:** Natural Gas, Dry Low No_x Combustors, SCR 0.0015% S. Distillate, & Water Injection on Distillate

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** 220 Acres

(9) ***Construction* Status:** U (Under construction, less than or equal to 50% complet

(10) **Certification Status:** U (Under construction, less than or equal to 50% complet

(11) **Status with Federal Agencies:** U (Under construction, less than or equal to 50% complet

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	2.1%	
Forced Outage Factor (FOF):	1.1%	
Equivalent Availability Factor (EAF):	96.8%	(Base & Duct Firing Operation)
Resulting Capacity Factor (%):	Approx. 94%	(First Year Base Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	6,582 Btu/kWh	(Base Operation)

(13) **Projected Unit Financial Data **,*****

Book Life (Years):	25 years
Total Installed Cost (2010 $/kW):	519
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2010 $kW-Yr)	10.11
Variable O&M ($/MWH): (2010 $/MWH)	0.138
K Factor:	1.5873

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement, but not firm gas transportation costs.

NOTE: Total installed cost includes gas expansion, transmission interconnection and integration, escalation, and AFUDC.
(Note: Costs shown are based on the constuction of Unit 1 first.)

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** FGPP Unit # 1

(2) **Capacity**
a. Summer 980 MW
b. Winter 990 MW

(3) **Technology Type:** Ultra-Supercritical Steam Generator

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2008
b. Commercial In-service date: 2013

(5) **Fuel**
a. Primary Fuel: Coal
b. Alternate Fuel: Up to 20% Petroleum Coke

(6) **Air Pollution and Control Strategy:** Low No_x Burners, Over-fired Air, SCR, Baghouse Wet Flue Gas Desulfurization, Wet Electric Static Precipatator

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** 4,900 Acres

(9) **Construction Status:** P (Planned)

(10) **Certification Status:** P (Planned)

(11) **Status with Federal Agencies:** P (Planned)

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	5.0%
Forced Outage Factor (FOF):	3.0%
Equivalent Availability Factor (EAF):	92%
Resulting Capacity Factor (%):	Approx. 90% (First Year Operation)
Average Net Operating Heat Rate (ANOHR):	8,800 Btu/kWh
Base Operation 75F,100%	

(13) **Projected Unit Financial Data *,****

Book Life (Years):	40 years
Total Installed Cost (2013 $/kW):	3,526
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2013 $kW-Yr)	35.61
Variable O&M ($/MWH): (2013$/MWH)	1.744
K Factor:	1.6017

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement.

NOTE: Total installed cost includes transmission interconnection and transmission integration,escalation, and AFUDC.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** FGPP Unit # 2

(2) **Capacity**
a. Summer 980 MW
b. Winter 990 MW

(3) **Technology Type:** Ultra-Supercritical Steam Generator

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2008
b. Commercial In-service date: 2014

(5) **Fuel**
a. Primary Fuel: Coal
b. Alternate Fuel: Up to 20% Petroleum Coke

(6) **Air Pollution and Control Strategy:** Low No_x Burners, Over-fired Air, SCR, Baghouse Wet Flue Gas Desulfurization, Wet Electric Static Precipatator

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** 4,900 Acres

(9) **Construction Status:** P (Planned)

(10) **Certification Status:** P (Planned)

(11) **Status with Federal Agencies:** P (Planned)

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	5.0%
Forced Outage Factor (FOF):	3.0%
Equivalent Availability Factor (EAF):	92%
Resulting Capacity Factor (%):	Approx. 90% (First Year Operation)
Average Net Operating Heat Rate (ANOHR):	8,800 Btu/kWh
Base Operation 75F,100%	

(13) **Projected Unit Financial Data *,****

Book Life (Years):	40 years
Total Installed Cost (2014 $/kW):	2,290
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2014 $kW-Yr)	26.42
Variable O&M ($/MWH): (2014 $/MWH)	1.76
K Factor:	1.5955

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement.

NOTE: Total installed cost includes transmission interconnection and transmission integration,escalation, and AFUDC.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** South Florida (unsited) Combined Cycle #1

(2) **Capacity**
a. Summer 1,219 MW
b. Winter 1,335 MW

(3) **Technology Type:** Combined Cycle

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2013
b. Commercial In-service date: 2015

(5) **Fuel**
a. Primary Fuel: Natural Gas
b. Alternate Fuel: Distillate

(6) **Air Pollution and Control Strategy:** Dry Low No_x Burners, SCR, Natural Gas, 0.0015% S. Distillate and Water Injection on Distillate

(7) **Cooling Method:** Cooling Tower

(8) **Total Site Area:** Unknown Acres

(9) **Construction Status:** P (Planned)

(10) **Certification Status:** P (Planned)

(11) **Status with Federal Agencies:** P (Planned)

(12) **Projected Unit Performance Data:**

Planned Outage Factor (POF):	2.1%
Forced Outage Factor (FOF):	1.1%
Equivalent Availability Factor (EAF):	96.8%
Resulting Capacity Factor (%):	Approx. 97% (First Year Operation)
Average Net Operating Heat Rate (ANOHR):	6,582 Btu/kWh
Base Operation 75F,100%	

(13) **Projected Unit Financial Data *,****

Book Life (Years):	25 years
Total Installed Cost (2015 $/kW):	746
Direct Construction Cost ($/kW):	
AFUDC Amount ($/kW):	
Escalation ($/kW):	
Fixed O&M ($/kW -Yr.): (2015 $kW-Yr)	11.11
Variable O&M ($/MWH): (2015 $/MWH)	0.52
K Factor:	1.543

* $/kW values are based on Summer capacity.
** Fixed O&M cost includes capital replacement.

NOTE: Total installed cost includes transmission interconnection and transmission integration,escalation, and AFUDC.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Turkey Point Combined Cycle Unit #5

The new Turkey Point CC unit that is scheduled to come in-service in 2007 does not require any "new" transmission lines.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

West County Energy Center Unit #1

The new West County Energy Center Unit #1 that is scheduled to come in-service in 2009 does not require any "new" transmission lines.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

West County Energy Center Unit #2

The new West County Energy Center Unit #2 that is scheduled to come in-service in 2010 does not require any "new" transmission lines.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

FGPP Unit #1 by 2013

(1)	Point of Origin and Termination:	New switchyard – New switching station
(2)	Number of Lines:	2
(3)	Right-of-way	FPL Owned & New acquisitions
(4)	Line Length:	25 miles each
(5)	Voltage:	500 kV
(6)	Anticipated Construction Timing:	Start date: March 2009 End date: November 2011
(7)	Anticipated Capital Investment: (Trans. and Sub.)	$200,881,000
(8)	Substations:	New switchyard and new switching station
(9)	Participation with Other Utilities:	None

---

(1)	Point of Origin and Termination:	Andytown-Orange River – New switching station
(2)	Number of Lines:	2
(3)	Right-of-way	FPL Owned & New acquisitions
(4)	Line Length:	24 miles each
(5)	Voltage:	500 kV
(6)	Anticipated Construction Timing:	Start date: March 2009 End date: November 2011
(7)	Anticipated Capital Investment: (Trans. and Sub.)	$172,566,000
(8)	Substations:	Andytown 500kV, Orange River 500kV and new 500kV switching station
(9)	Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

FGPP Unit #2 by 2014

(1)	Point of Origin and Termination:	New switchyard – Levee 500kV
(2)	Number of Lines:	1
(3)	Right-of-way	FPL Owned & New acquisitions
(4)	Line Length:	74 miles
(5)	Voltage:	500 kV
(6)	Anticipated Construction Timing:	Start date: March 2009 End date: November 2012
(7)	Anticipated Capital Investment: (Trans. and Sub.)	$96,020,000
(8)	Substations:	Andytown 500kV, Levee 500kV and new 500kV switching station
(9)	Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Unsited South Florida Combined Cycle Unit in 2015

No projection of a new transmission line(s) can be made until a site is selected for this unit.

Schedule 11.1

Existing FIRM and NON-FIRM Capacity and Energy by Primary Fuel Type
Actuals for the Year 2006

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Net (MW) Capability				Net Energy For Load	
	Generation by Primary Fuel	Summer (MW)	Summer (%)	Winter (MW)	Winter (%)	GWH	%
(1)	Coal	896	3.7%	902	3.5%	6,168	5.5%
(2)	Nuclear	2,939	12.1%	3,014	11.8%	23,533	20.8%
(3)	Residual	6,818	28.0%	6,876	27.0%	9,586	8.5%
(4)	Distillate	660	2.7%	781	3.1%	26	0.0%
(5)	Natural Gas	9,668	39.6%	10,706	42.0%	56,985	50.4%
(6)	*FPL Existing Units Total:*	*20,981*	*86.0%*	*22,279*	*87.4%*	*96,298*	*85.1%*
(7)	Renewables (Purchases)- Firm	157.6	0.6%	157.6	0.6%	1,253	1.1%
(8)	Renewables (Purchases)- Non-Firm	As Available		As Available		393	0.3%
(9)	Renewable (Owned)		0.0%		0.0%		0.0%
(10)	*Renewable Total:*	*157.6*	*0.6%*	*157.6*	*0.6%*	*1,646*	*1.5%*
(11)	*Purchases Other:*	*3,249.0*	*13.3%*	*3,047.0*	*12.0%*	*15,193*	*13.4%*
(12)	*Total*	*24,387.6*	*100.0%*	*25,483.6*	*100.0%*	*113,137*	*100.0%*

Note:
(1) FPL Existing Units Total matches Total System found on Schedule 1.
(2) "Renewable Purchases" - Firm are broken down in Schedule 11.2
(3) "Renewable Purchases" - Non-Firm are broken down in Schedule 11.3
(4) Net Energy for Load MWH matches Schedule 6.1

Schedule 11.2

Existing FIRM Renewable Report by Fuel Type
Actuals for the Year 2006

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Gross (MW) Capability				Net Energy For Load	
	Renewable Fuel Type	Summer (MW)	Summer (%)	Winter (MW)	Winter (%)	GWH	%
1	Biomass	157.6	100.0%	157.6	100.0%	1,253	100.0%
2	Landfill Gas						
3	Hydro						
4	Geothermal						
5	Biofuels						
6	Solar						
7	Ocean Energy						
8	Wind						
9	Other						
10	Total	157.6	100.0%	157.6	100.0%	1,253	100.0%

Note:
(1) Col (2) matches Row (7) on Schedule 11.1.
(2) Col (6) total matches Row (7) on Schedule 11.1.

Schedule 11.3

Existing NON-FIRM Renewable Report by Fuel Type
Actuals for the Year 2006

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Gross (MW) Capability				Net Energy For Load	
	Renewable Fuel Type	Summer (MW)	Summer (%)	Winter (MW)	Winter (%)	GWH	%
1	Biomass	As Available		As Available		375.5	95.5%
2	Landfill Gas	As Available		As Available		17.8	4.5%
3	Hydro						
4	Geothermal						
5	Biofuels						
6	Solar						
7	Ocean Energy						
8	Wind						
9	Other						
10	Total					393.3	100.0%

Note:
(1) Col (6) total needs to match Row (8) on Schedule 11.1.

Schedule 11.4

Existing NON-FIRM Self-Service Renewable Generation Facilities
Actuals for the Year 2006

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Facility Name	Unit No.	Gross MW	Net MW	Fuel Type	Self-Service MW	Self-Service MWh	In-Service Date
Customer owned PV< 10 kw (est)	N/A	0.100	Unk	SUN	0.100	70.8	2002 - 2006
FPL Martin PV (est)	N/A	0.011	0.0	SUN	0.011	14.4	
FPL estimates there are 42,861 solar water heaters in our system				SUN			
FPL estimates there are 34,358 solar pool heaters in our system				SUN			

Notes
(1) Provide as much data available for facilities/resources "behind the meter" (as data permits).
(2) A 'Facility Name' may include an aggregated quantity (i.e., Pool Heaters, Solar-Powered Interstate Call Boxes, Photovoltaic Lighting, etc.).
(3) Self-Service MW and MWh pertains to power and energy consumed by the entity, whether it be a named facility or aggregated quantity.

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CHAPTER IV

Environmental and Land Use Information

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IV. Environmental and Land Use Information

IV.A Protection of the Environment

FPL operates in a sensitive, temperate/sub-tropical environment containing a number of distinct ecosystems with many endangered plant and animal species. Population growth in FPL's service area is continuing, which heightens competition for air, land, and water resources that are necessary to meet the increased demand for generation, transmission, and distribution of electricity. At the same time, residents and tourists want unspoiled natural amenities, and the general public has an expectation that large corporations such as FPL will conduct their business in an environmentally responsible manner.

FPL has been recognized for many years as one of the leaders among utilities for its commitment to the environment. FPL's environmental leadership has been heralded by many outside organizations. In 2004, FPL Group earned a first place ranking among U.S. power companies and second globally in a report from the World Wildlife Fund for voluntary commitments to limit CO_2 emissions. This commitment was made to support initiatives to better manage utility impacts on climate change through use of greenhouse gas emission reductions and improvements in energy efficiency. The report stated that this was "primarily due to the company's leadership in developing wind energy and their commitment to dramatically improve their efficiency". In January 2007, FPL joined with a diverse group of U.S. based business market leaders and leading non-governmental organizations to form the U.S. Climate Action Partnership (USCAP) in recognition of the need for a national policy framework on climate change. USCAP has called upon the federal government to formulate mandatory economy-wide policies to reduce CO_2 emissions. As a further demonstration of FPL's efforts in sustainability, the EPA and the Department of Energy awarded FPL for its Sunshine Energy® program which allows customers who choose to participate to pay a premium for their electricity that is used to purchase tradable renewable energy credits associated with electric energy generated from renewable energy sources. FPL Group, the parent corporation of Florida Power & Light was also recently awarded its fourth number one rating of major electric utilities surveyed in an environmental assessment conducted by Innovest, an independent advisory group. This rating was in recognition of FPL Group's success in executing a strategy to become a clean energy provider harnessing primarily clean and renewable fuels while also boosting shareholder value. FPL Group was named one of the world's most Sustainable Corporations in Global 100 and was one of only two utilities to be so named in the United States.

FPL was awarded Edison Electric Institute's National Land Management Award for its stewardship of 25,000 acres surrounding its Turkey Point Plant. FPL won the Council for Sustainable Florida's award for its sea turtle conservation and education programs at its St. Lucie Plant. In 2001, FPL was awarded the 2001 Waste Reduction and Pollution Prevention Award from the Solid Waste Association of North America. FPL received the 2001 Program Champion Award from the Environmental Protection Agency's Wastewise Program. The Florida Department of Environmental Protection named FPL a "Partner for Ecosystem Protection" for its emission-reducing "repowering" projects at its Fort Myers and Sanford Plants. Finally, FPL has been recognized by numerous federal and state agencies for its innovative endangered species programs which include such species as manatees, crocodiles, and sea turtles.

IV.B FPL's Environmental Statement

To reaffirm its commitment to conduct business in an environmentally responsible manner, FPL developed an Environmental Statement in 1992 to clearly define its position. This statement reflects how FPL incorporates environmental values into all aspects of its activities and serves as a framework for new environmental initiatives throughout the company. FPL's Environmental Statement is:

It is the Company's intent to continue to conduct its business in an environmentally responsible manner. Accordingly, Florida Power & Light Company will:

- Comply with the spirit and intent, as well as the letter of, environmental laws, regulations, and standards.
- Incorporate environmental protection and stewardship as an integral part of the design, construction, operation, and maintenance of our facilities.
- Encourage the wise use of energy to minimize the impact on the environment.
- Communicate effectively on environmental issues.
- Conduct periodic self-evaluations, report performance, and take appropriate actions.

IV.C Environmental Management

In order to implement the Environmental Statement, FPL established an environmental management system to direct and control the fulfillment of the organization's environmental responsibilities. A key component of the system is an Environmental Assurance Program that is discussed below. Other components include: executive management support and commitment, written environmental policies and procedures, delineation of organizational responsibilities and individual accountabilities, allocation of appropriate resources for environmental compliance management (which includes reporting and corrective action when non-compliance occurs), environmental incident/emergency response, environmental risk assessment/management, environmental regulatory development and tracking, and environmental management information systems.

IV.D Environmental Assurance Program

FPL's Environmental Assurance Program consists of activities which are designed to evaluate environmental performance, verify compliance with Corporate policy as well as with legal and regulatory requirements, and communicate results to corporate management. The principal mechanism for pursuing environmental assurance is the environmental audit. An environmental audit may be defined as a management tool comprising a systematic, documented, periodic, and objective evaluation of the performance of the organization and of the specific management systems and equipment designed to protect the environment. The environmental audit's primary objectives are to facilitate management control of environmental practices and assess compliance with existing environmental regulatory requirements and Company policies.

IV.E Environmental Communication and Facilitation

FPL is involved in many efforts to enhance environmental protection through the facilitation of environmental awareness and in public education. Some of FPL's 2006 environmental outreach activities are noted in Table IV.E.1.

Table IV.E.1: 2006 FPL Environmental Outreach Activities

Activity	# of Participants
Visitors to Energy Encounter	20,000
Visitors to Manatee Park	150,000
Number of visits to FPL's Environmental Website	258,000
Number of pieces of Environmental literature distributed	>120,000

(All numbers are approximations.)

IV.F Preferred and Potential Sites

Based upon its projection of future resource needs, FPL has identified three Preferred Sites and eight Potential Sites for future generation additions. Preferred Sites are those locations where FPL has conducted significant reviews and taken action to site generation. Potential Sites are those sites that have attributes that support the siting of generation and are under consideration as a location for future generation. Some of these sites are currently in use as existing generation sites and some are not. The identification of a Potential Site does not indicate that FPL has made a definitive decision to pursue generation (or generation expansion in the case of an existing generation site) at that location, nor does this designation indicate that the size or technology of a generator has been determined. These Preferred Sites and Potential Sites are discussed in separate sections below.

IV.F.1 Preferred Sites

FPL identifies three Preferred Sites in this Site Plan: the existing Turkey Point plant site, the West County Energy Center (WCEC) adjacent to the existing Corbett FPL substation, and the FPL Glades Power Park (FGPP) located northwest of the city of Moore Haven in Glades County. The Turkey Point site is the location for a capacity addition that FPL will make in mid-2007. The West County Energy Center site is the location for capacity additions FPL will make in 2009 and 2010. The FGPP site is the projected location for advanced technology coal capacity additions by 2013 and 2014.

The capacity additions at the Turkey Point site and the WCEC site have been approved by the FPSC and by the Governor and Siting Board. FPL petitioned the FPSC for

approval of the FGPP advanced technology coal units in January 2007. A decision is expected by the FPSC by July 2007.

The three Preferred Sites are discussed below.

Preferred Site # 1: Turkey Point Plant, Miami-Dade County

The Turkey Point Plant site is located on the west side of Biscayne Bay, 25 miles south of Miami. The site is directly on the shoreline of Biscayne Bay and is geographically located approximately 9 miles east of Florida City on Palm Drive. Public access to the plant site is limited due to the nuclear units located there. The land surrounding the site is owned by FPL and acts as a buffer zone. The site is comprised of two nuclear units and two conventional boiler, fossil units, the cooling canals, an FPL-maintained natural wildlife area, and wetlands that have been set aside as the Everglades Mitigation Bank (EMB).

Units #1 and #2 are fossil fuel generating plants with approximate generating capacity of 400 MW each. Unit #1 was completed in 1967 and Unit #2 in 1968. Units #3 and #4 are nuclear generating units with approximate generating capacity of 700 MW each. Unit #3 was completed in 1972 and Unit #4 in 1973. Turkey Point also has five diesel peaking units that, in total, produce approximately 12 MW. These units are primarily used to provide emergency power, but occasionally run during the Summer to provide power during peak load demands.

The site for the new Turkey Point Unit #5, a "4-on-1" combined cycle electrical generating unit, is within the existing FPL Turkey Point facility property. The site is adjacent to the existing fossil Units #1 and #2, and includes the existing parking lot and storage areas immediately northwest of Units #1 and #2 as well as mangrove wetlands north of the facility.

a. U.S. Geological Survey (USGS) Map

A USGS map of the Turkey Point plant site is found at the end of this chapter.

b. Proposed Facilities Layout

A map of the general layout of the Turkey Point Unit #5 generating facility at the site is found at the end of this chapter.

c. **Map of Site and Adjacent Areas**

An overview map of the site and adjacent areas is also found at the end of this chapter.

d. **Existing Land Uses of Site and Adjacent Areas**

A major portion of the site consists of a self-contained cooling canal system that supplies water to condense steam used by the existing units' turbine generators. The canal system consists of 36 interconnected canals each five miles long, 200 feet wide and approximately four feet deep. The remaining developed area of the site is where the two fossil steam generating units and 5 diesel generators are located. South of, and adjacent to, the fossil plant are the two nuclear generating units. Further to the south, wetlands have been set aside as part of the Everglades Mitigation Bank (EMB) in an effort to restore these areas to historical plant communities and hydrological function.

e. **General Environment Features On and In the Site Vicinity**

1. **Natural Environment**

The majority of the site was undeveloped dwarf red mangrove swamp that is tidally inundated with waters from Biscayne Bay. Along with the dominant red mangroves, buttonwood is a common canopy component, along with occasional white mangrove. Only a few individual black mangroves were observed within the site. Biscayne Bay is a shallow, subtropical bay supporting seagrasses, sponges, coral reefs, and a variety of marine life.

2. **Listed Species**

The construction and operation of Unit #5 is not expected to adversely affect any rare, endangered, or threatened species. Listed species known to occur in the nearby Biscayne National Park that could potentially utilize the site include the peregrine falcon (Falco peregrinus), wood stork (Mycteria americana), American crocodile (Crocodylus acutus), mangrove rivulus (Rivulus marmoratus), roseate spoonbill (Ajaja ajaja), limpkin (Aramus guarauna), little blue heron (Egretta caerulea), snowy egret (Egretta thula), American oystercatcher (Haematopus palliates), least tern (Sterna antillarum), brown pelican (Pelicanus occidentalis), the white ibis (Eudocimus albus), and bald eagle (Haliaeetus leucocephalus). No bald eagle nests are known to exist in the vicinity of the site. The federally listed, endangered American Crocodile thrives at the Turkey Point site, primarily in and

around the southern end of the cooling canals which lie south of the project area. The entire site is considered crocodile habitat due to the mobility of the species and use of the site for foraging, traversing, and basking. FPL manages a program for the conservation and enhancement of the American crocodile. A project-specific crocodile management plan was developed for construction of Unit #5.

3. **Natural Resources of Regional Significance Status**

Significant features in the vicinity on the site include Biscayne National Park, the Miami-Dade County Homestead Bayfront Park, and the Everglades National Park. The portion of Biscayne Bay adjacent to the site is included within the Biscayne National Park, comprised of several miles of shoreline north of the Turkey Point facility extending offshore approximately 12 nautical miles. Biscayne National Park contains 180,000 acres, approximately 95% of which is open water interspersed with over 40 keys. The Biscayne National Park headquarters is located approximately 2 miles north of the Turkey Point plant and is adjacent to the Miami-Dade County Homestead Bayfront Park which contains a marina and day use recreational facilities.

4. **Other Significant Features**

FPL is not aware of any other significant features of the site.

f. **Design Features and Mitigation Options**

Additional generating capacity is being added to the site for operation beginning in mid-2007. The new generating unit will consist of four new combustion turbines (CT) and four new heat recovery steam generators (HRSG) and a new steam turbine that will comprise Turkey Point Unit #5. Natural gas delivered via the existing pipeline is the primary fuel type for this unit (with ultra low sulfur light oil serving as a backup fuel).

Mitigation for unavoidable wetland impacts related to construction of Unit #5 includes: on-site hydrologic improvements to enhance existing wetlands, restoration and preservation of areas overgrown with exotic plant species, creation of an on-site lagoon, transfer of some mangrove-dominated lands to South Florida Water Management District and Biscayne National Park, and the purchase of mitigation credits from the EMB that is in the same drainage basin. The use of a cooling tower

will minimize thermal discharges to the cooling canals. The facility already encompasses several preserved areas where wildlife is abundant.

g. **Local Government future Land Use Designations**

Local government future land use plan designates most of the site as IU-3 "Industrial, Unlimited Manufacturing District." There are also areas designated GU – "Interim District." Designations for the surrounding area are primarily GU – "Interim District."

h. **Site Selection Criteria Process**

For the past several years, a number of FPL's existing power plant sites have been considered as potentially suitable sites for new or repowered generation. The Turkey Point plant has been selected as a Preferred site due to consideration of various factors including system load, an imbalance in the Southeast Florida region between load and generating capacity, and economics. Environmental issues are an important factor at this site and FPL will minimize environmental impacts and mitigate where impacts are unavoidable.

i. **Water Resources**

Unique to Turkey Point plant site is the self-contained cooling canal system that supplies water to condense steam used by the plant's turbine generators. The canal system consists of 36 interconnected canals each five miles long, 200 feet wide, and approximately four feet deep. The system performs the same function as a giant radiator. The water is circulated through the canals in a two-day journey, ending at the plant's intake pumps. During the slow journey down the canals, the water cools as much as 15 degrees

j. **Geological Features of Site and Adjacent Areas**

FPL's Turkey Point site is underlain by approximately 13,000 feet of sedimentary rock strata. The strata that extends to approximately 500 feet forms the Biscayne Aquifer. The basement complex in this area consists of Paleozoic igneous and metamorphic rocks about which little is known due to their great depth.

Overlying the basement complex to the ground surface are sedimentary rocks and deposits that are primarily of marine origin. Below a depth of about 400 feet these rocks are predominantly limestone and dolomite. Above 400 feet the deposits are largely composed of sand, silt, or clay. The Tamiami formation is named for deposits composed principally of white cream-colored calcareous sandstone, sandy limestone,

and beds and pockets of quartz sand. In the Turkey Point area, Key Largo limestone is present.

The Floridan Aquifer, located approximately 1,100 feet below the land surface, is a confined aquifer. The Floridan Aquifer system is composed entirely of carbonate rocks except for minor evaporates. The water in the carbonate rock aquifer is more highly mineralized.

k. Projected Water Quantities for Various

The additional quantity of water for industrial processing will be approximately 294 gallons per minute (gpm) for plant process and service water. Water for this type of use would be supplied by an existing county water system. A new water treatment plant is installed to provide treated water for the new unit. Cooling water for new Unit #5 will be processed through a cooling tower. FPL will use approximately 14 million gallons per day (mgd) of water from the Floridan Aquifer as the source of makeup water used by the cooling tower.

l. Water Supply Sources and Type

This additional capacity at the site will utilize the cooling tower for the dissipation of heat from the cooling water. A new water treatment system will be installed to provide treated water for Unit #5. The Floridan Aquifer will supply the makeup cooling water.

m. Water Conservation Strategies

The plant will implement a Water Conservation Plan including physical features, procedures, and employee training to conserve water resources. Features in the plant's water systems design will include, when practical:

- Automatic shutoff valves
- Use of flow restrictors
- Use of low volume sanitary facilities
- Low maintenance landscaping design

An awareness program will be implemented for employees that operate the plant. The awareness program will educate employees on water conservation methods, techniques, and procedures. Procedures will be reviewed on an annual basis with the first review occurring in approximately June 2008, one year after the expected

commercial operation date. The Water Conservation Plan will be updated as necessary.

n. Water Discharges and Pollution Control

Heated water discharges are dissipated using the existing once-through cooling water system and the cooling canal system. Unit #5 cooling water will be processed through a cooling tower which will dissipate the heat prior to discharge to the cooling canal system. Storm water runoff is collected and used to recharge the surficial aquifer via a storm water management system. Design elements have been included to capture suspended sediments. Various facility permits mandate various sampling and testing activities that provide indication of any pollutant discharges.

The facility employs a Best Management Practices (BMP) plan and Spill Prevention, Control, and Countermeasure (SPCC) plan to control the inadvertent release of pollutants.

o. Fuel Delivery, Storage, Waste Disposal, and Pollution Control

The site is already serviced by multiple fuel delivery facilities. There is currently a pipeline that supplies natural gas to the facility. The facility also has oil capabilities through on-site storage tanks and accessibility to barge deliveries. Unit #5 will utilize the existing pipeline with the addition of a compression system(s). An aboveground storage tank for the ultra-low sulfur light oil backup fuel will be added. The backup fuel for Unit #5 will be delivered to the site by truck.

p. Air Emissions and Control Systems

The use of natural gas and ultra-low sulfur light oil and combustion controls will minimize air emissions from this unit and ensure compliance with applicable emission limiting standards. Using these fuels minimizes emissions of sulfur dioxide (SO_2), particulate matter, and other fuel-bound contaminates. Combustion controls minimize the formation of nitrogen oxides (NO_x) and the combustor design will limit the formation of carbon monoxide and volatile organic compounds. When firing natural gas, NO_x emissions will be controlled using dry-low NO_x combustion technology and selective catalytic reduction (SCR). Water injection and SCR will be used to reduce NO_x emissions during operations when using the ultra-low sulfur light oil as backup fuel. These design alternatives constitute the Best Available Control Technology for air emissions and minimize such emissions while balancing economic, environmental, and energy impacts. Taken together, the design of Turkey Point Unit

#5 will incorporate features that will make it one of the most efficient and cleanest power plants in the State of Florida.

q. Noise Emissions and Control Systems

A field survey and impact assessment of noise expected to be caused by unit construction at the site indicated that construction noise would be below current noise levels for the residents nearest the site. Noise from the operation of the new unit will also be within allowable levels. Similar natural gas-fired facilities in Broward, Manatee, and Martin counties have been constructed and operated without exceeding allowable noise levels.

r. Status of Applications

FPL filed the Site Certification Application (SCA) for the Turkey Point Plant Unit #5 with the Florida Department of Environmental Protection (FDEP) on November 14, 2003, and received Site Certification by the Governor and Cabinet in February 2005. The U.S. Army Corps of Engineers issued a federal Dredge and Fill permit in February 2005. FDEP issued the Prevention of Significant Deterioration (PSD) air permit in February 2005. FPL acquired all permits and authorizations needed, and commenced construction in Spring 2005 with an anticipated, in-service date of mid-2007.

Preferred Site # 2: West County Energy Center, Palm Beach County

FPL has identified the property adjacent to the existing Corbett Substation property in unincorporated western Palm Beach County as a Preferred Site for the addition of new generating capacity. The site was selected for the addition of a new greenfield combined cycle natural gas power plant project with ultra-low sulfur oil as a backup fuel. The existing site is an area accessible to both natural gas and electrical transmission through existing structures or through additional lateral connections. The proposed facility would use natural gas as the primary fuel and state-of-the-art combustion controls.

a. U.S. Geological Survey (USGS) Map

A USGS map of the West County Energy Center (WCEC) plant site is found at the end of this chapter.

b. Proposed Facilities Layout

A map of the general layout of the WCEC generating facilities at the site is found at the end of this chapter.

c. Map of Site and Adjacent Areas

An overview map of the site and adjacent areas is also found at the end of this chapter.

d. Existing Land Uses of Site and Adjacent Areas

The land on the site is currently inactive but was previously dedicated to industrial and agricultural use. The site has been excavated, back-filled, and totally re-graded to an elevation approximately 10 ft. above surrounding land surface. No structures are present on the site and vegetation is virtually non-existent.

e. General Environment Features On and In the Site Vicinity

1. Natural Environment

The plant site has been significantly altered by the construction and operation of a limestone mine where vegetation had been cleared and removed. The surrounding land use is predominantly sugar cane agriculture and limestone mining. FPL's existing Corbett substation is located north of the site. The Arthur R. Marshall Loxahatchee National Wildlife Refuge is located to the south of the proposed site.

2. Listed Species

Construction and operation of new units at the site is not expected to affect any rare, endangered, or threatened species. Wildlife utilization of the property is minimal as a result of the mining activities. Common wading birds can be observed on areas adjacent to and occasionally within the property. The property is adjacent to areas that have been identified as potential habitat for wood stork.

3. Natural Resources of Regional Significance Status

The construction and operation of a gas-fired combined cycle generating facility at the proposed location is not expected to have any adverse impacts on parks, recreation areas, or environmentally sensitive lands including the Arthur R. Marshall Loxahatchee National Wildlife Refuge. It is not anticipated that

construction will result in wetland impacts under federal, state, or local agency permitting criteria.

4. **Other Significant Features**

FPL is not aware of any other significant features of the site.

f. Design Features and Mitigation Options

The design option is to construct two new 1,200 MW (approximate) units each consisting of three new combustion turbines (CT) and three new heat recovery steam generators (HRSG) and a new steam turbine. These two new units are scheduled to be in-service in mid-2009 and mid-2010, respectively. Natural gas delivered via pipeline is the primary fuel type for this unit with ultra-low sulfur light oil serving as a backup fuel.

g. Local Government Future Land Use Designations

Local government future land use designation for the project site is "Rural Residential" according to the Palm Beach County Future Land Use Map. Designations for the area under the Palm Beach County Unified Land Development Code classified the project site and surrounding area as Special Agricultural District. The site has been granted conditional use for electrical power facilities under a General Industrial zoning district.

h. Site Selection Criteria Process

The site has been selected as a Preferred Site due to consideration of various factors including system load and economics. Environmental issues were not a deciding factor since this site does not exhibit significant environmental sensitivity or other environmental issues.

i. Water Resources

Water from the Floridan Aquifer and surface water from the L10/L12 canal will be used for cooling, service, and process water. Water from the surficial aquifer will be treated and used for potable water.

j. Geological Features of Site and Adjacent Areas

The site is underlain by approximately 13,000 feet of sedimentary rock strata. The basement complex in this area consists of Paleozoic igneous and metamorphic rocks about which little is known due to their great depth.

Overlying the basement complex to the ground surface are sedimentary rocks and deposits that are primarily marine in origin. Below a depth of about 400 feet these rocks are predominantly limestone and dolomite. Above 400 feet the deposits are largely composed of sand, silt, clay, and phosphate grains. The deepest formation in Palm Beach County on which significant published data are available is the Eocene Age Avon Park. Limited information is available from wells penetrating the underlying Oldsmar formation. The published information on the sediments comprising the formations below the Avon Park Limestone is based on projections from deep wells in Okeechobee, St. Lucie, and Palm Beach Counties.

k. Projected Water Quantities for Various Uses

The estimated quantity of water required for industrial processing for both units is approximately 450 gallons per minute (gpm) for uses such as process water and service water. Approximately 15 million gallons per day (mgd) in total of cooling water for the two generating units would be cycled through the addition of cooling towers. Water quantities needed for other uses such as potable water are estimated to be approximately 35,000 gallons per day (gpd).

l. Water Supply Sources by Type

The generating units will use available surface or ground water as the source of cooling water for the cooling towers. The cooling towers will also act as a heat sink for the facility process water. Such needs for cooling and process water will comply with the existing South Florida Water Management District (SFWMD) regulations for consumptive water use.

m. Water Conservation Strategies Under Consideration

Impacts on the surficial aquifer would be minimized and used only for potable water. Water from the Floridan Aquifer or the L10/L12 canal will be used for cooling purposes and cooling towers will be utilized. In addition, captured stormwater will be reused in the cooling tower whenever feasible. Stormwater captured in the stormwater ponds will also recharge the surficial aquifer.

n. Water Discharges and Pollution Control

Heat will be dissipated in the cooling towers. Blowdown water from the cooling towers, along with other wastestreams, will be injected into the boulder zone of the Floridan Aquifer. Non-point source discharges are not an issue since there will be none at this facility. Storm water runoff will be collected and used to recharge the

surficial aquifer via a storm water management system. Design elements will be included to capture suspended sediments. In addition, captured stormwater will be reused in the cooling towers whenever feasible The facility will employ a Best Management Practices (BMP) plan and Spill Prevention, Control, and Countermeasure (SPCC) plan to control the inadvertent release of pollutants.

o. Fuel Delivery, Storage, Waste Disposal, and Pollution Control

The site is not located near an existing natural gas transmission pipeline that is capable of providing a sufficient quantity of gas. Upgrades of existing pipelines and/or lateral connections to other pipelines will be made for supply of natural gas. Ultra-low sulfur light fuel oil would be received by truck and stored in above-ground storage tanks to serve as backup fuel for the new units.

p. Air Emissions and Control Systems

The use of natural gas and ultra-low sulfur light fuel oil and combustion controls will minimize air emissions from these units and ensure compliance with applicable emission limiting standards. Using these fuels minimizes emissions of sulfur dioxide (SO_2), particulate matter, and other fuel-bound contaminates. Combustion controls similarly minimize the formation of nitrogen oxides (NO_x) and the combustor design will limit the formation of carbon monoxide and volatile organic compounds. When firing natural gas, NO_x emissions will be controlled using dry-low NO_x combustion technology and selective catalytic reduction (SCR). Water injection and SCR will be used to reduce NO_x emissions during operations when using ultra-low sulfur light fuel oil as backup fuel. These design alternatives constitute the Best Available Control Technology for air emissions, and minimize such emissions while balancing economic, environmental, and energy impacts. Taken together, the design of the West County Energy Center units will incorporate features that will make them among the most efficient and cleanest power plants in the State of Florida.

q. Noise Emissions and Control Systems

Noise expected to be caused by unit construction at the site is expected to be below current noise levels for the residents nearest the site. Noise from the operation of the new unit will be within allowable levels.

r. Status of Applications

A Site Certification Application (SCA) for the construction and operation of the West County Energy Center project under the Florida Electrical Power Plant Siting Act was

filed on April 14, 2005 and received Site Certification by the Governor and Cabinet on December 26, 2006. Palm Beach County Planning Zoning and Building department issued approval for the project on June 28, 2006. FDEP issued a Class I Underground Injection Control Exploratory Well permit on January 11, 2006 and a Class V Exploratory Well Permit on December 6, 2006. FDEP issued a Prevention of Significant Deterioration (PSD) air permit on January 10, 2007. After acquiring these permits and authorizations, FPL initiated construction in February 2007 and anticipates an in-service date for the first unit of mid-2009. An application for the final Underground Injection Control (UIC) system permit will be submitted once the exploratory well construction is completed.

Preferred Site # 3: FPL Glades Power Park (FGPP), Glades County

FPL has identified a 4,900 acre property in unincorporated Glades County as a Preferred Site for the addition of 1,960 MW of new generating capacity. The site boundary is located approximately 2.3 miles northwest of Moore Haven, Florida. The Preferred Site was selected for the addition of a new advanced technology coal project. The existing site is adjacent to a rail line that can be used for fuel delivery. In addition, the facility can be designed to beneficially use excess storm water from the region as one of the sources of cooling water. New transmission lines in Glades and Hendry Counties, as well as a new substation in Hendry County will be required to interconnect the facility to the FPL power grid. The proposed facility would use a combination of domestic coal and/or foreign coal with up to 20% petroleum coke. The proposed generation process is a highly efficient, ultra-supercritical pulverized coal technology. The facility will feature advanced, state-of-the-art pollution control equipment to minimize emissions.

a. U.S. Geological Survey (USGS) Map

A USGS map of the FPL Glades Power Park (FGPP) site is found at the end of this chapter.

b. Proposed Facilities Layout

A map of the general layout of the proposed generating facilities at the site is found at the end of this chapter.

c. **Map of Site and Adjacent Areas**

An overview map of the site and adjacent areas is also found at the end of this chapter.

d. **Existing Land Uses of Site and Adjacent Areas**

The site is comprised of active sugar cane fields, pasture, and undeveloped land. Unpaved farm roads and irrigation ditches related to the sugar cane operations are also prevalent throughout much of the site. Land uses immediately surrounding the site are active sugar cane fields, open pasture, and undeveloped land.

e. **General Environment Features On and In the Site Vicinity**

1. **Natural Environment**

The plant will be developed on approximately 4,000 acres of the 4,900 acre site, with the balance of the site being preserved. The area to be developed has been significantly altered by agricultural activities. Specifically, the natural topography, soils, and hydrology has been altered to create an area favorable for the production of sugar cane. Natural surface water drainage features have been modified through the construction of a network of irrigation ditches. The undeveloped portion of the site will be preserved.

Nicodemus Slough is located to the north of the site. Lake Okeechobee is located approximately 1.5 miles east of the site. The Fisheating Creek Wildlife Management Area is located approximately 4 miles north of the site.

2. **Listed Species**

Construction and operation of new units at the site is not expected to adversely affect any rare, endangered, or threatened species. Wildlife utilization of the property is minimal as a result of the agricultural activities. The majority of the site is comprised of active sugar cane fields which are unsuitable habitat for most species due to the lack of native vegetation and the amount and frequency of human disturbance. However, wading birds and alligators do utilize the irrigation canals and opportunistic wildlife forage in areas of heavy machinery. Brazilian pepper/willow and marsh wetlands within the sugar can fields also provide habitat for avian species and common herpetofauna.

Three federally listed species have been observed at the site, including the wood stork, the crested caracara, and the Everglades snail kite. State-listed species observed at the site include the little blue heron, snowy egret, white ibis, tri-color heron, wood stork, sand hill crane, and American alligator. The site does not provide any critical wildlife habitat.

3. **Natural Resources of Regional Significance Status**

Construction and operation of the advanced technology coal generating facility at the proposed location is not expected to have adverse impacts on parks, recreation areas, or environmentally sensitive lands. Construction will impact approximately 300 acres of man-made irrigation/drainage ditches and 248 acres of low quality wetlands dominated by exotic vegetation. The irrigation/drainage ditches are vegetated by nuisance/exotic species of vegetation, receive agricultural runoff, and do not provide high quality aquatic habitat for fish and wildlife.

4. **Other Significant Features**

FPL is not aware of any other significant features of the site.

f. **Design Features and Mitigation Options**

The design option is to construct two new nominal 980 MW net advanced technology coal units with state-of-the-art pollution control equipment. These units are planned to be in-service no later than mid-2013 and mid-2014,respectively. Domestic and/or imported coal along with up to 20% petroleum coke delivered via rail is the fuel type for these units. The extensive array of pollution control equipment will make this one of the cleanest coal facilities in the U.S.

Proposed mitigation for unavoidable wetland impacts related to construction of the units includes will be accomplished through a combination of onsite freshwater marsh and forested wetland creation within the pasture portion of the site and preservation of the highest quality marsh, wet prairie, wetland scrub, and mature upland live oak/cabbage palm habitat at the site.

g. **Local Government Future Land Use Designations**

The site is located in unincorporated Glades County and is designated as Agricultural/Open on the Glades County Future Land Use Map.

The site is located in the Open Use Agriculture (OUA) zoning district. Power plants and ancillary facilities are listed as a permitted use in the Glades County Table of Zoning District Uses.

The use of the site for the plant and directly associated facilities is consistent with the existing land use plans and zoning ordinances.

h. **Site Selection Criteria Process**

The site has been selected as a Preferred Site due to consideration of various factors including, but not limited to: site size, proximity to rail service, water resources, and environmental condition of the site (already disturbed).

i. **Water Resources**

A number of water sources are available for plant use at this location, including: recycled stormwater, Floridan Aquifer water, excess stormwater from the C-43/Caloosahatchee River, surficial aquifer water, and reclaimed water from the City of Moore Haven Publicly Owned Treatment Works (POTW).

j. **Geological Features of Site and Adjacent Areas**

The site is underlain by undifferentiated surficial sands and clays, Calooshatchee and Fort Thompson Formations, Tamiami Formation, and the Peace River Formation of the Hawthorne Group. Regionally, geologic features that are encountered within 1,000 feet of the land surface in Glades County include the Avon Park Formation, Ocala Group, Suwannee Limestone, Hawthorne Group, Tamiami, Caloosahatchee, and Fort Thompson Formations, and undifferentiated surficial sediments.

k. **Projected Water Quantities for Various Uses**

The total water requirement for the FGPP units is expected to average about 26 million gallons per day (mgpd) for process water, service water, and cooling water. The cooling water for the two proposed units would be cycled through the addition of mechanical draft cooling towers. Potable water will be provided by the City of Moore Haven and/or surficial aquifer wells.

l. **Water Supply Sources by Type**

The proposed units will use recycled stormwater, available surface or ground water, and reclaimed water as sources of cooling water for the cooling towers. The cooling towers will also act as a heat sink for the facility process water. Such needs for

cooling and process water will comply with the existing South Florida Water Management District (SFWMD) regulations for consumptive water use.

m. **Water Conservation Strategies Under Consideration**

Impacts on the surficial aquifer would be minimized since it will only serve small water needs (i.e., service water). When available, excess stormwater will be used with the remainder of the water being obtained from the Floridan Aquifer for the source of cooling water. In addition, the entire plant site will capture and reuse stormwater and process water.

n. **Water Discharges and Pollution Control**

Heated water discharges will be dissipated in the cooling towers. Blowdown water from the cooling towers will be injected into the boulder zone of the Floridan Aquifer. Non-point source discharges are not an issue since there will be none at this facility. Industrial discharges will be minimized by treating and recycling equipment wash water, boiler blowdown water, and equipment area runoff. Storm water runoff will be collected and recycled in plant processes.

o. **Fuel Delivery, Storage, Waste Disposal, and Pollution Control**

Fuel will be transported to the site by rail lines located adjacent to the site. The fuel will be transferred on site to a transfer tower where the fuel is unloaded into the active and inactive storage areas. The active storage area will maintain sufficient fuel for about 7 days of full operation by both units and the inactive storage area will maintain sufficient fuel for about 60 days of full operation by both units. The inactive storage area will be sealed.

The plant will produce recyclable byproducts that can be used in cement and wallboard manufacturing and other industries (fly ash, bottom ash, and synthetic gypsum). It is the intent to market all of these byproducts for beneficial reuse. However, as a contingency, the project will include construction of a synthetically lined byproduct storage area equipped with a leachate collection system where the byproducts can be routed in the event that market conditions do not enable recycling of some or all of the byproducts.

Only small quantities of other solid wastes will be generated by the FGPP units. These wastes will be managed in accordance with all local, state, and federal regulations.

p. **Air Emissions and Control Systems**

The use combustion controls and state-of-the-art pollution control equipment will minimize air emissions from these units and ensure compliance with applicable emission limiting standards. Combustion controls minimize the formation of nitrogen oxides (NO_x), and the combustor design will limit the formation of carbon monoxide and volatile organic compounds. Post-combustion NO_x emissions will be controlled using selective catalytic reduction (SCR). Emissions of SO_2 will be controlled using wet limestone flue gas desulfurization (FGD). Particulate matter will be controlled using a fabric filter (FF). A wet electrostatic precipitator (wet ESP) will be used to control fine particulates and sulfuric acid mist. These design alternatives constitute the Best Available Control Technology for air emissions, and minimize such emissions while balancing economic, environmental, and energy impacts. Further, each of these pollution controls will enhance or remove mercury. In addition, sorbent injection technology will be used to further enhance mercury removal. Taken together, the design of the FGPP units will incorporate features that will make them among the most efficient and cleanest coal-fired units in the State of Florida and the U.S.

q. **Noise Emissions and Control Systems**

A field survey and impact assessment of noise expected to be caused by construction activities at the site was conducted. Predicted noise levels are not expected to result in adverse noise impacts in the vicinity of the site during construction or operation of the facility.

r. **Status of Applications**

A Site Certification Application (SCA) for the construction and operation of the FPL Glades Power Park project under the Florida Electrical Power Plant Siting Act was filed on December 22, 2006. A Prevention of Significant Deterioration (PSD) permit application and an Underground Injection Control permit application were submitted to the Florida Department of Environmental Protection (FDEP) on December 19, 2006. A petition for approval of a Determination of Need for these units was filed with the FPSC on February 1, 2007 and a decision by the FPSC is expected by July 2007.

IV.F.2 Potential Sites for Generating Options

Eight (8) sites are currently identified as Potential Sites for near-term future generation additions to meet FPL's capacity needs.[3] These sites have been identified as Potential Sites due to considerations of location to FPL load centers, space, infrastructure, and/or accessibility to fuel and transmission facilities. These sites are suitable for different capacity levels and technologies.

Each of these Potential Sites offer a range of considerations relative to engineering and/or costs associated with the construction and operation of feasible technologies. In addition, each Potential Site has different characteristics that will require further definition and attention. For the purpose of estimating water requirements for each site, it was assumed that either one dual-fuel (natural gas and light oil) simple cycle combustion turbine (CT) or a natural gas-fired combined cycle unit (CC) would be constructed at the Potential Sites. A simple cycle CT would require approximately 50 gallons per minute (gpm) for both process and cooling water (assuming air cooling). A CC unit would require approximately 150 gpm for service and process water and approximately 14 million gallons per day (mgd) for cooling water.

Permits are presently considered to be at least theoretically obtainable for all of these sites. No significant environmental constraints are currently known for any of these sites. The Potential Sites briefly discussed below are presented in alphabetical order. At this time FPL considers each site to be equally viable.

Potential Site # 1: Andytown Substation, Broward County

FPL has identified the Andytown Substation property in western unincorporated Broward County as a potential site for the addition of new generating capacity. Current facilities on-site include an electric substation. The existing site is an area accessible to both natural gas and electrical transmission through existing structures or through additional lateral connections.

a. U.S. Geological Survey (USGS) Map

A USGS map of the site has been included at the end of this chapter.

[3] As has been described in previous FPL Site Plans, FPL also considers a number of other sites as possible sites for future generation additions. These include the remainder of FPL's existing generation sites.

b. Land Uses

The land uses for the potential site were designated as industrial or agricultural use.

c. Environmental Features

Extensive low-quality wetlands are adjacent to the site. Construction and operation of a new facility on this site would not be expected to adversely affect any rare, endangered, or threatened species.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

Groundwater from the shallow aquifer or a local source of gray water have been identified as potential water sources. The Floridan Aquifer has also been identified as a potential cooling water source.

Potential Site # 2: Cape Canaveral Plant, Brevard County

This site is located on the FPL Cape Canaveral Plant property in unincorporated Brevard County. The city of Port St. Johns is located less than a mile away. The site has direct access to a four-lane highway (US 1). A rail line is located near the plant. The existing facility consists of two 400 MW (approximate) steam boiler type generating units.

a. U.S. Geological Survey (USGS) Map

A USGS map of the site is found at the end of this chapter.

b. Land Uses

The land is primarily dedicated to industrial use; i.e., FPL's existing Cape Canaveral power plant Units #1 and #2. It is surrounded by grassy areas and a few acres of remnant pine forest. The land adjacent to the site is dedicated to light commercial and residential use.

c. Environmental Features

There are no significant environmental features on the site.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

Existing on-site wells, reclaimed water, public supply water, and the existing once-through cooling water system are potential water supply sources.

Potential Site # 3: Desoto County Greenfield Site

This site is a "Greenfield" undeveloped site located on a 13,515 acre property in unincorporated Desoto County. The site is adjacent to portions of the Peace River and lies on both the east and west sides of US Hwy 17 approximately 3 to 5 miles north of the City of Arcadia. There are currently no facilities on the site.

a. U.S. Geological Survey (USGS) Map

A USGS map of the site is found at the end of this chapter.

b. Land Uses

The land on the site is currently dedicated to agricultural use (sod farming, cattle grazing, and truck crops).

c. Environmental Features

Developed portions of the adjacent properties are primarily agricultural (sod farms, citrus groves, and cattle grazing). Undeveloped portions include mixed scrub with some hardwoods and a few small isolated wetlands.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

Groundwater from the upper and lower Floridan Aquifer, or if available and practicable, a local source of gray water are potential water sources.

Potential Site # 4: Fort Myers Plant Site, Lee County

This site is located on FPL's existing 460-acre Fort Myers property. The existing facilities on the site include one 1,440 MW (approximate) combined cycle unit, 12 gas turbines, each with an approximate capacity of 54 MW, and 2 combustion turbines, each with an approximate capacity of 160 MW.

a. U.S. Geological Survey (USGS) Map

A USGS map of the Fort Myers plant site is found at the end of this chapter.

b. Land Uses

The land on the site is currently dedicated to industrial use with surrounding grassy and landscaped areas. Much of the site has been used in recent years for direct plant construction activities. The adjacent land uses include light commercial and retail to the east of the property, plus some residential areas located toward the west.

c. Environmental Features

Mixed scrub with some hardwoods can be found to the east and further south.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

The available water source is the Caloosahatchee River and the available groundwater source is the sandstone aquifer.

Potential Site # 5: Lauderdale Plant, Broward County

The Lauderdale site is located in Eastern Broward County approximately 5 miles inland from Dania Beach and less than 2 miles west of Ft. Lauderdale International Airport. The site is bounded on the south by Dania Cutoff Canal, the east by SW 30th Avenue, and the North by I-595.

The existing approximately 1,700 MW of generating capacity at FPL's Lauderdale site occupies a portion of the approximately 210 acres that are wholly owned by FPL. The generating capacity is made up of two combined cycle units (Units #4 and #5), and 24 simple cycle gas turbine (GT) units.

a. **U.S. Geological Survey (USGS) Map**

A USGS map of the site is found at the end of this chapter.

b. **Land Uses**

The existing power plant facilities are located on approximately 130 acres. The existing site has been in use since the 1920s and is adjacent to a county resource recovery project.

c. **Environmental Features**

To the north of the power plant is an area of mixed uplands with a scattering of small wetlands.

d. **Water Quantities**

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. **Supply Sources**

Existing groundwater or the municipal water supply are potential water sources.

Potential Site # 6: Martin Plant, Martin County

The Martin site is located approximately 40 miles northwest of West Palm Beach, 5 miles east of Lake Okeechobee, and 7 miles northwest of Indiantown in Martin County, Florida. The site is bounded on the west by the Florida East Coast Railway (FEC) and the adjacent South Florida Water Management District (SFWMD) L-65 Canal, on the south by the St. Lucie Canal (C-44 or Okeechobee Waterway), and on the northeast by SR 710 and the adjacent CSX Railroad.

The existing approximately 3,700 MW of generating capacity at FPL's Martin site occupies a portion of the approximately 11,300 acres that are wholly owned by FPL. The generating capacity is made up of two steam units (Units #1 and #2), plus three

combined cycle units (Units #3, #4, and #8). The site includes a 6,800-acre cooling pond (6,500 acres of water surface and 300 acres of dike area) and approximately 300 acres for the existing power plant units and related facilities.

a. **U.S. Geological Survey (USGS) Map**

A USGS map for the site is found at the end of this chapter.

b. **Land Uses**

A major portion of the site consists of a 6,800-acre cooling pond. The existing power plant facilities are located on approximately 300 acres.

c. **Environmental Features**

To the east of the power plant there is an area of mixed pine flat wood with a scattering of small wetlands. To the north of the cooling pond there is a 1,200-acre area which has been set aside as a mitigation area. There is a peninsula of wetland forest on the West Side of the reservoir that is named the Barley Barber Swamp. The Barley Barber Swap encompasses 400 acres and is preserved as a natural area. There is also a 10-kilowatt (kW) photovoltaic energy facility at the south end of this site.

d. **Water Quantities**

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. **Supply Sources**

Surface water resources currently used at the Martin facility include the cooling pond which takes its water from the St. Lucie canal. The available ground water resource is the surficial aquifer system which is used as a source of potable and service water.

Potential Site # 7: Port Everglades Plant, Broward County

This site is located on the 94-acre FPL Port Everglades plant site in Port Everglades, Broward County. The site has convenient access to State Road (SR) 84 and I- 595. Rail line is located near the plant. The existing plant consists of four steam boiler generating units: two 200 MW (approximate) and two 400 MW (approximate) sized units. The four steam boilers are capable of firing residual fuel oil, natural gas, or a combination

of both. The site also is home to twelve simple cycle gas turbine (GT) peaking units of 30 MW (approximate) each. The GT's are part of the Gas Turbine Power Park that is made up of 24 GT's at the Lauderdale Plant site and the twelve GTs at the Port Everglades site. The GT's are capable of firing either natural gas or liquid fuel.

a. U.S. Geological Survey (USGS) Map

A map of the site is found at the end of this chapter.

b. Land Uses

The land on this site is primarily industrial. The adjacent land uses are port facilities and associated industrial activities, oil storage, cruise ships, and light commercial.

c. Environmental Features

The shoreline of the intake and discharge canal banks are vegetated with fringing mangrove, with some open, maintained grass areas on the side.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

Existing groundwater or the municipal water supply could be used for industrial process and makeup water. Industrial cooling water needs could be met using the existing one-through cooling water system. We believe these sources would provide sufficient water for either simple cycle or combined cycle generation.

Potential Site # 8: Riviera Plant, Palm Beach County

This site is located on the FPL Riviera Plant property in Riviera Beach, Palm Beach County. The site has direct access to a four-lane highway, US 1, and barge access is available. A rail line is located near the plant. The facility currently houses two operational 300 MW (approximate) steam boiler generating units and one retired 50 MW generating unit.

a. U.S. Geological Survey (USGS) Map

A USGS map of the site is found at the end of this chapter.

b. Land Uses

The land on the site is primarily covered by the existing generation facilities. Adjacent land uses include port facilities and associated industrial activities, as well as light commercial and residential development.

c. Environmental Features

The site is located on the Intra-coastal waterway near the Lake Worth Inlet which provides a warm water refugia for manatees during cold winter days. The plant property contains some open, maintained grass area.

d. Water Quantities

As previously discussed, needed water quantities would be up to 150 gallons per minute (gpm) for both process and cooling water (assuming air cooling) and up to 14 million gallons per day (mgd) for cooling water.

e. Supply Sources

The existing municipal water supply could be used for industrial processing water. Industrial cooling water needs could be met using the existing once-through cooling water system. For once-through cooling water, FPL could use Lake Worth as a source of water. We believe these sources would provide sufficient water for either simple cycle or combined cycle generation.

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Environmental and Land Use Information:

Supplemental Information

Preferred Site: Turkey Point

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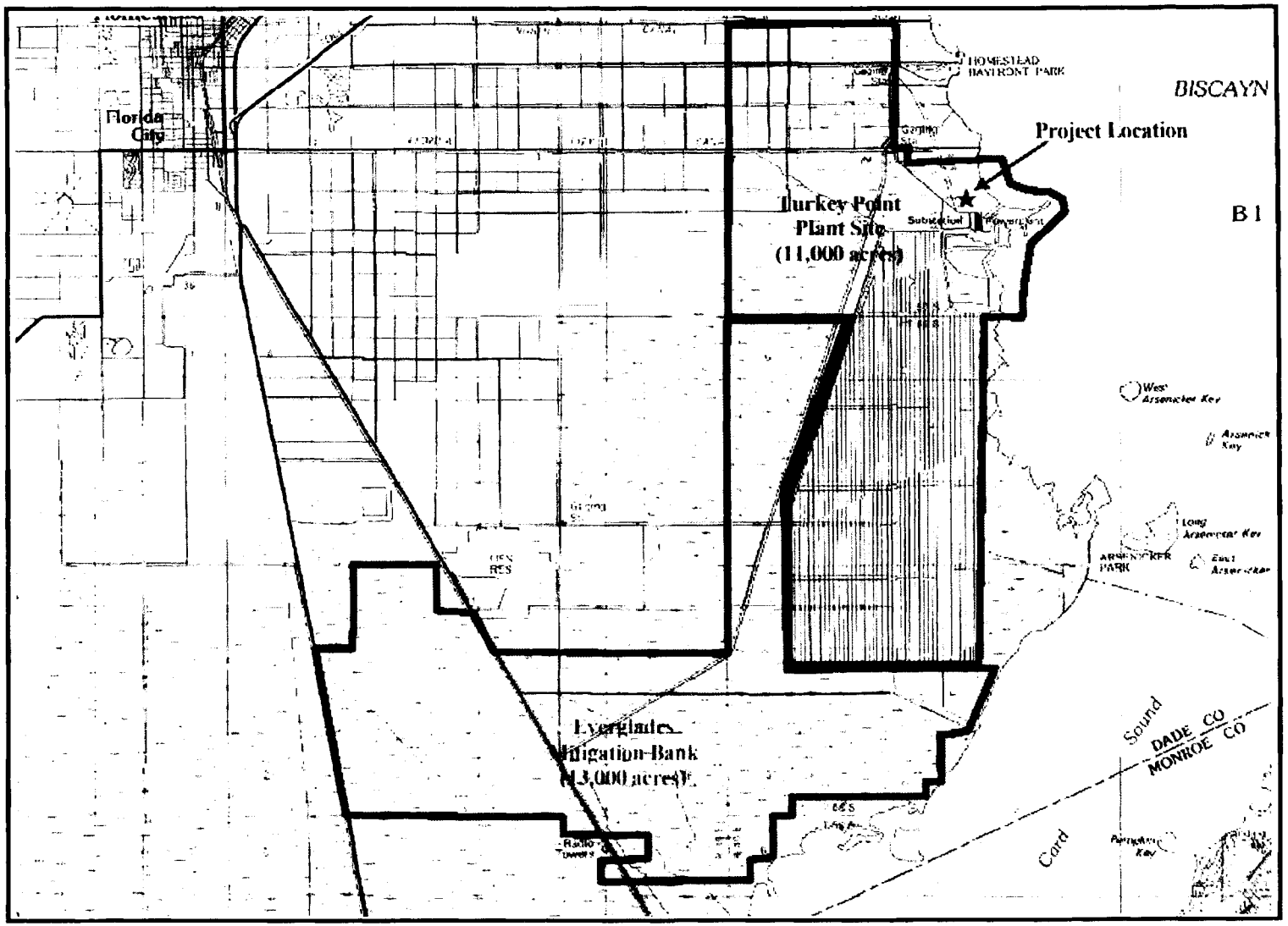
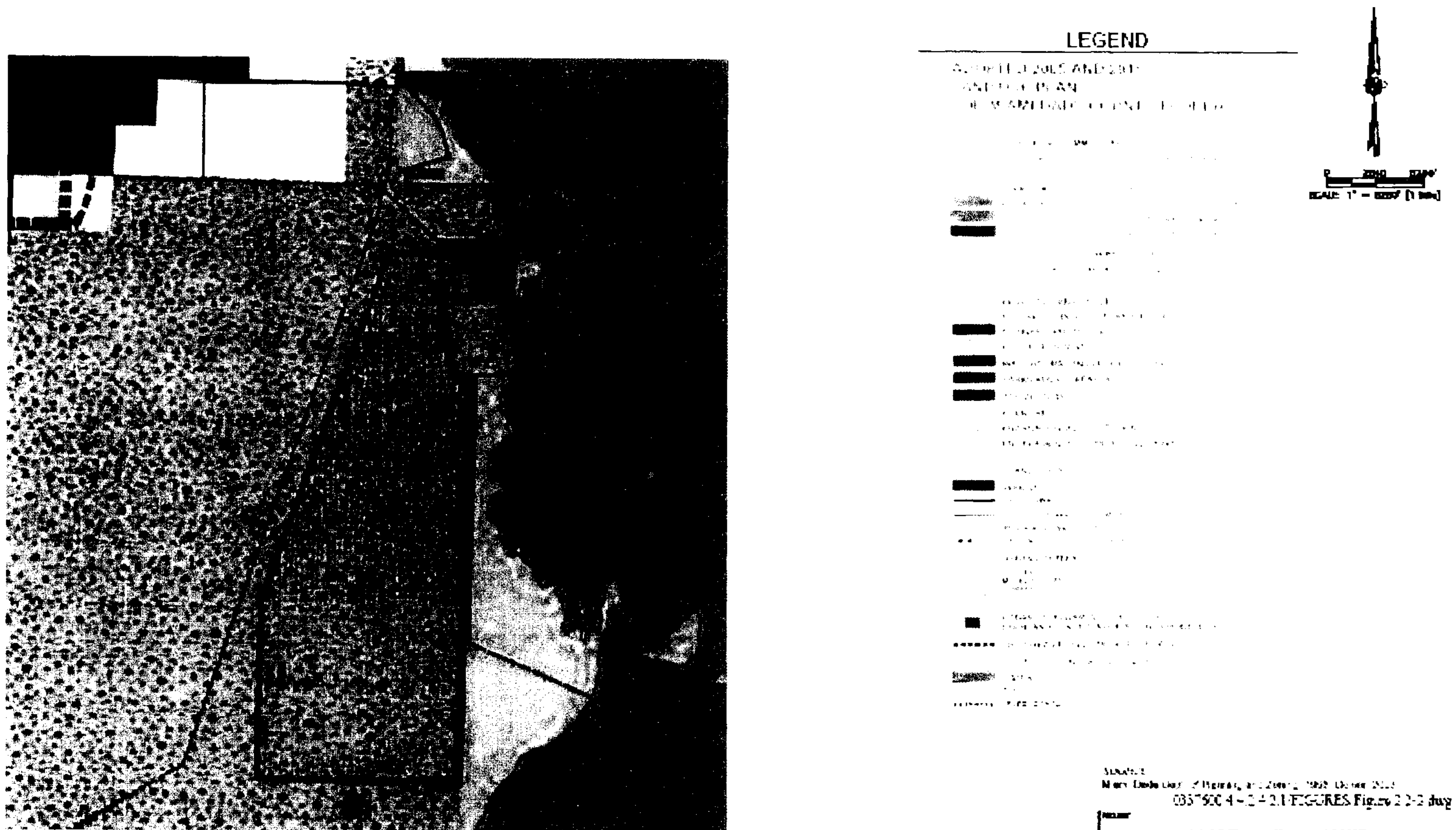

Florida City
HOMESTEAD BAYFRONT PARK
BISCAYN
Project Location
Turkey Point Plant Site (11,000 acres)
B 1
Everglades Mitigation Bank (13,000 acres)
Sound
DADE CO
MONROE CO
Card

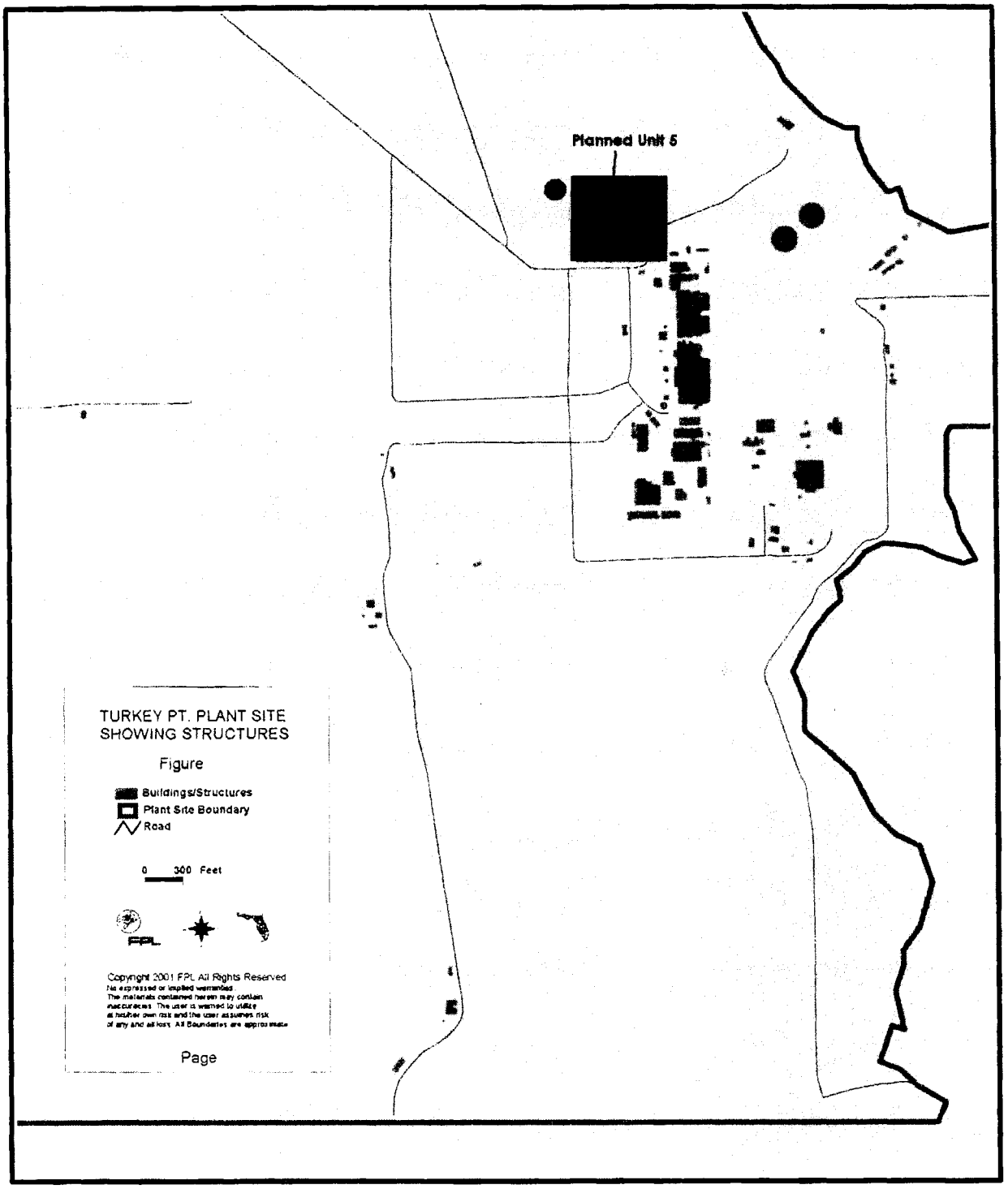


0337900 4 – 2 4 2.1 FIGURES Figure 2.2-2.dwg

FLORIDA POWER & LIGHT

FIGURE 2.2-2
TURKEY POINT
FUTURE LAND USE MAP

FPL


Planned Unit 5
TURKEY PT. PLANT SITE
SHOWING STRUCTURES
Figure
Buildings/Structures
Plant Site Boundary
Road
0 300 Feet
FPL
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Page

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Environmental and Land Use Information:

Supplemental Information

Preferred Site: West County Energy Center

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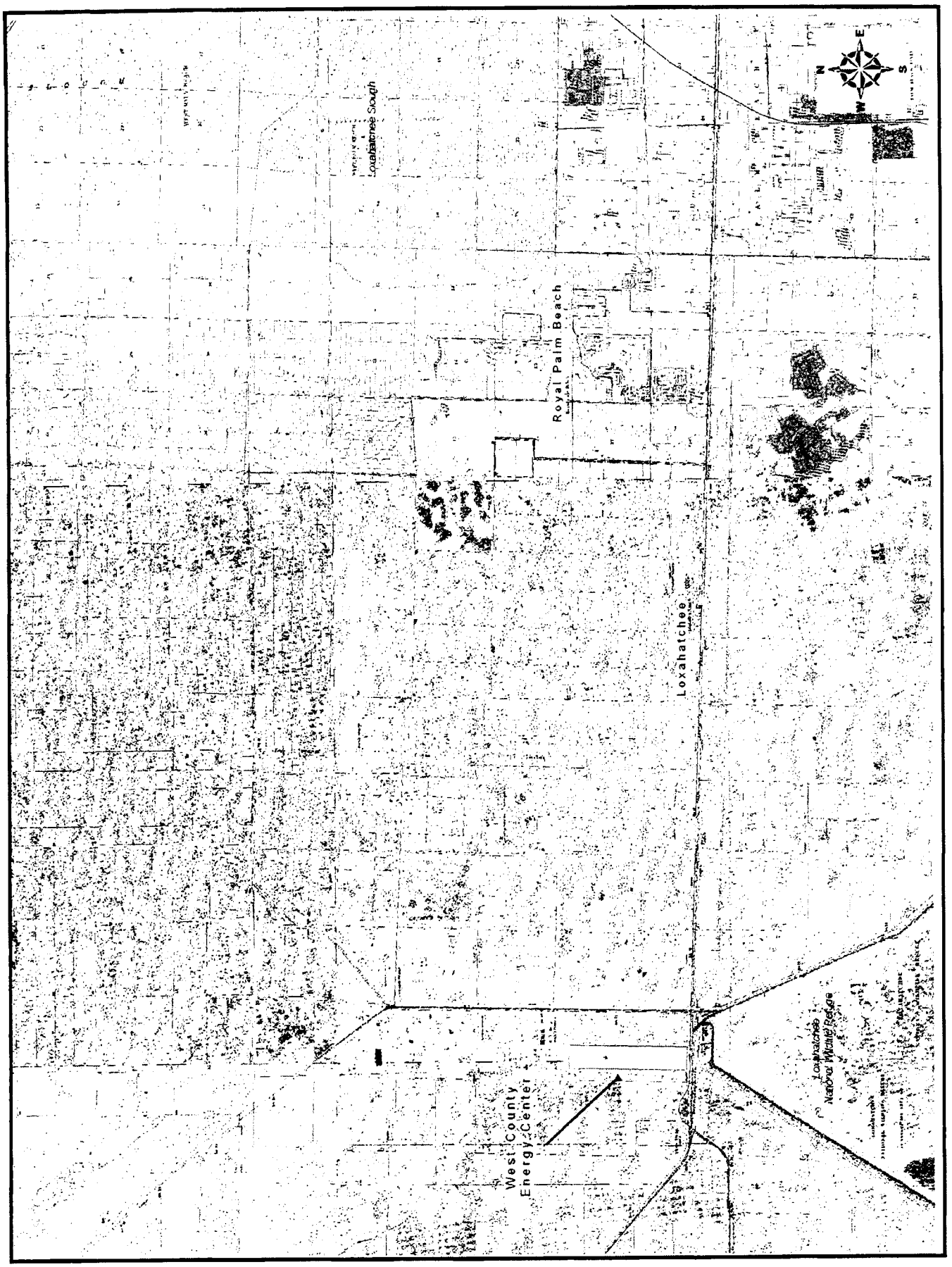
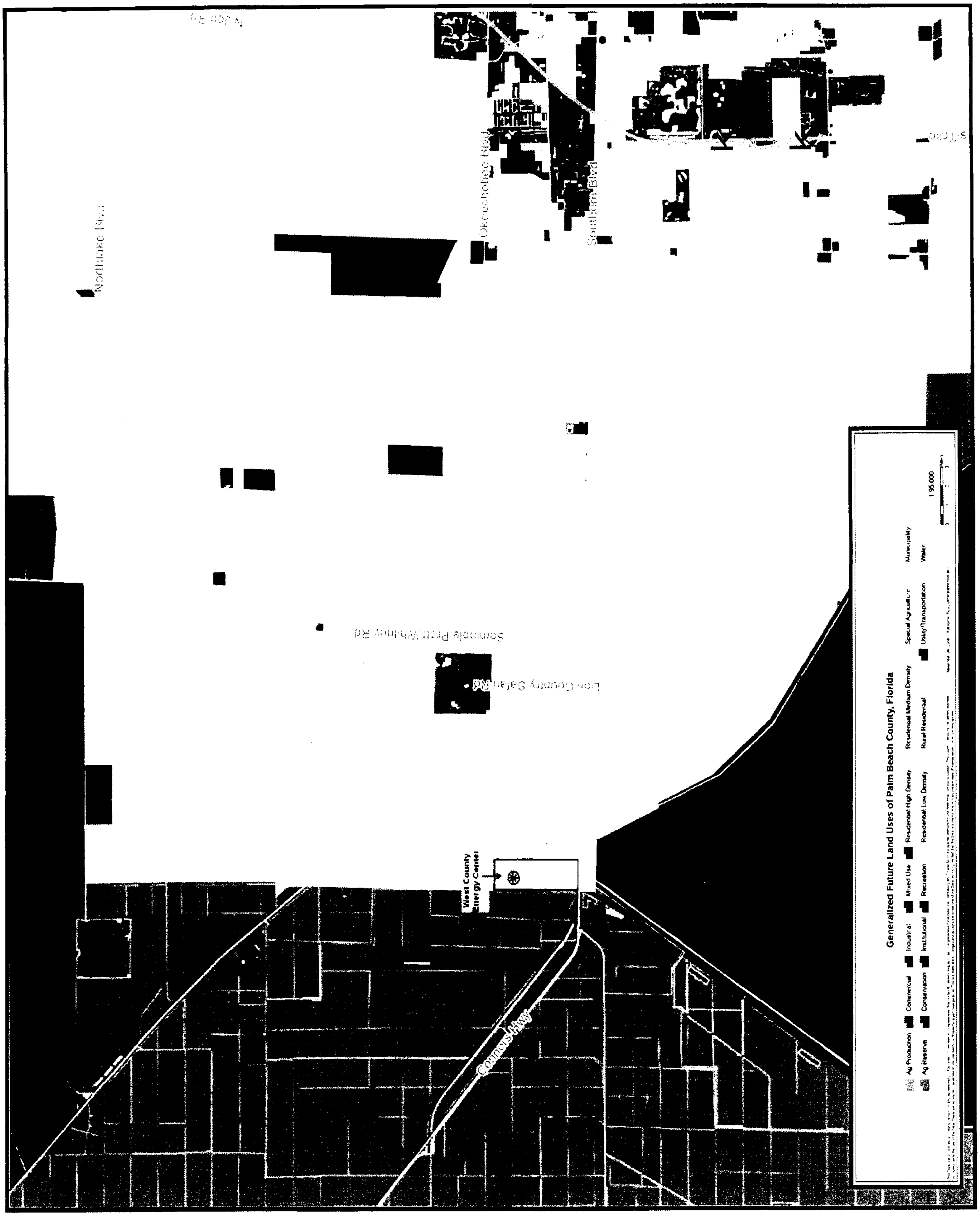
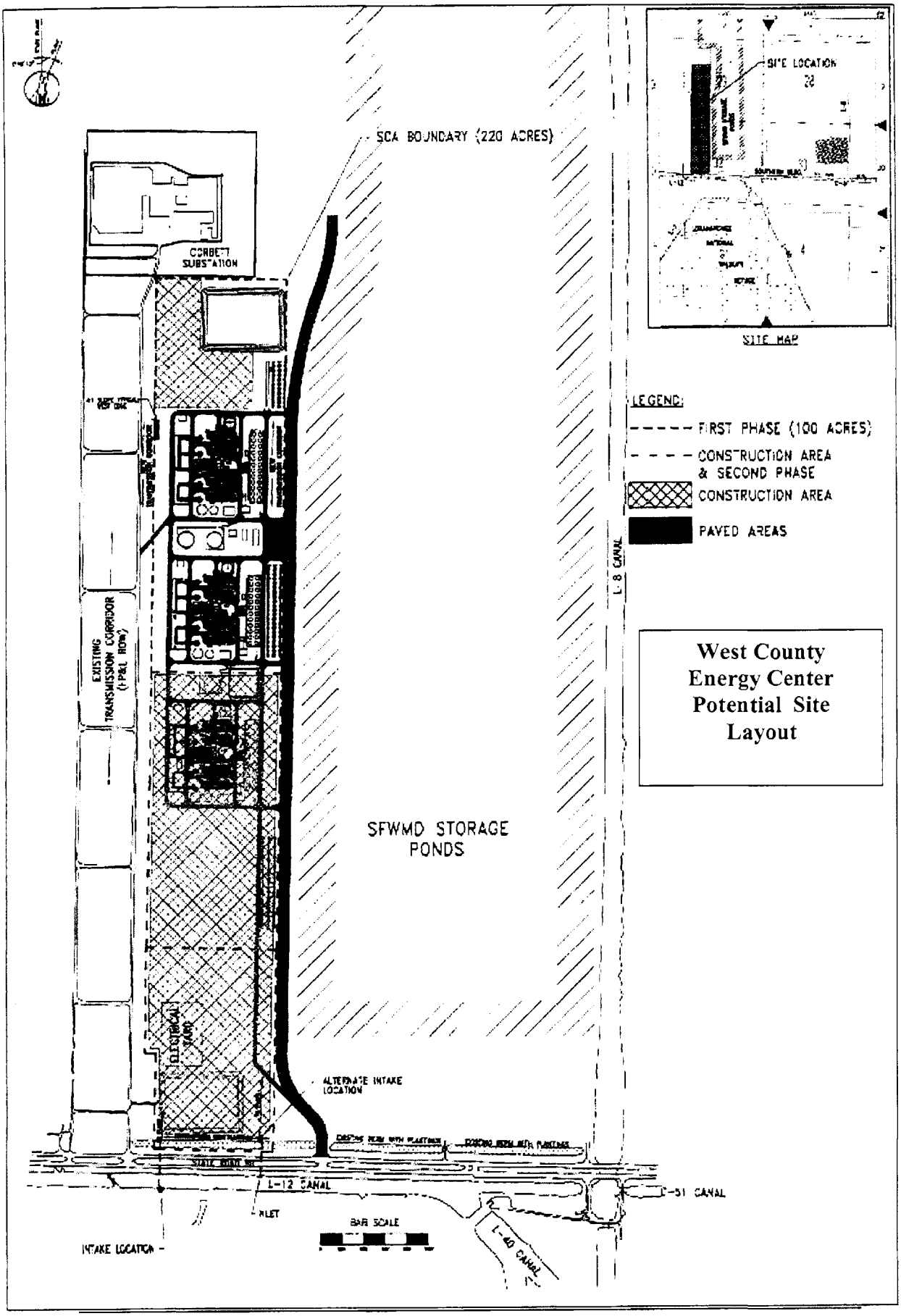

Loxahatchee Slough
Royal Palm Beach
Loxahatchee
West County Energy Center
Loxahatchee National Wildlife Refuge
N
E
S
W



West County Energy Center
Conners Hwy
Northlake Blvd
Okeechobee Blvd
Southern Blvd
Seminole Pratt Whitney Rd
Lion Country Safari Rd
Generalized Future Land Uses of Palm Beach County, Florida
Ag Production
Commercial
Industrial
Mixed Use
Residential High Density
Residential Medium Density
Special Agriculture
Municipality
Ag Reserve
Conservation
Institutional
Recreation
Residential Low Density
Rural Residential
Utility/Transportation
Water
1:95,000


SCA BOUNDARY (220 ACRES)
CORBETT SUBSTATION
EXISTING TRANSMISSION CORRIDOR (FP&L ROW)
SFWMD STORAGE PONDS
ALTERNATE INTAKE LOCATION
L-12 CANAL
L-8 CANAL
L-51 CANAL
L-40 CANAL
INLET
INTAKE LOCATION
BAR SCALE
SITE LOCATION
SITE MAP
LEGEND:
FIRST PHASE (100 ACRES)
CONSTRUCTION AREA & SECOND PHASE
CONSTRUCTION AREA
PAVED AREAS
West County Energy Center Potential Site Layout

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Environmental and Land Use Information:

Supplemental Information

Preferred Site: FPL Glades Power Park

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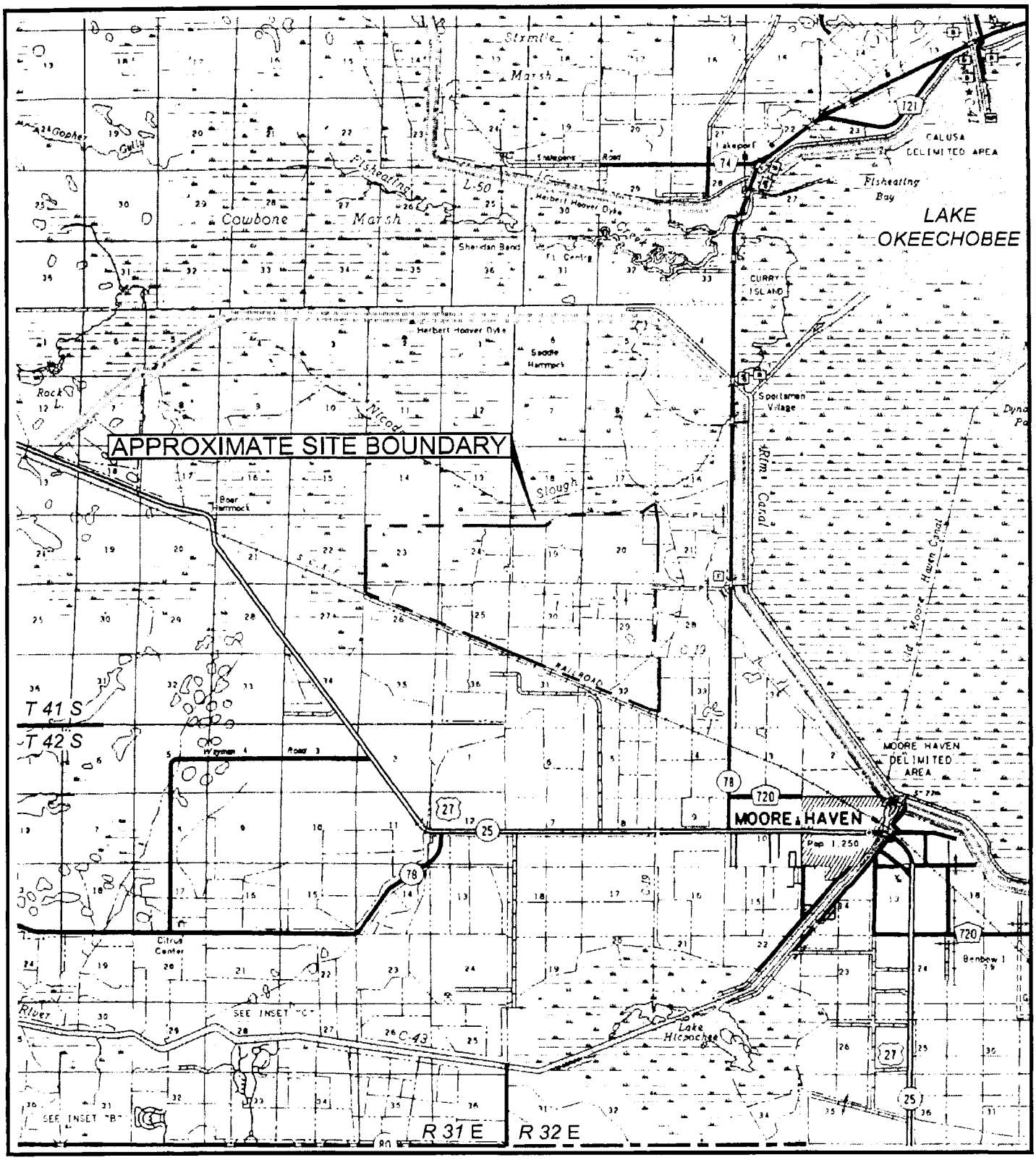
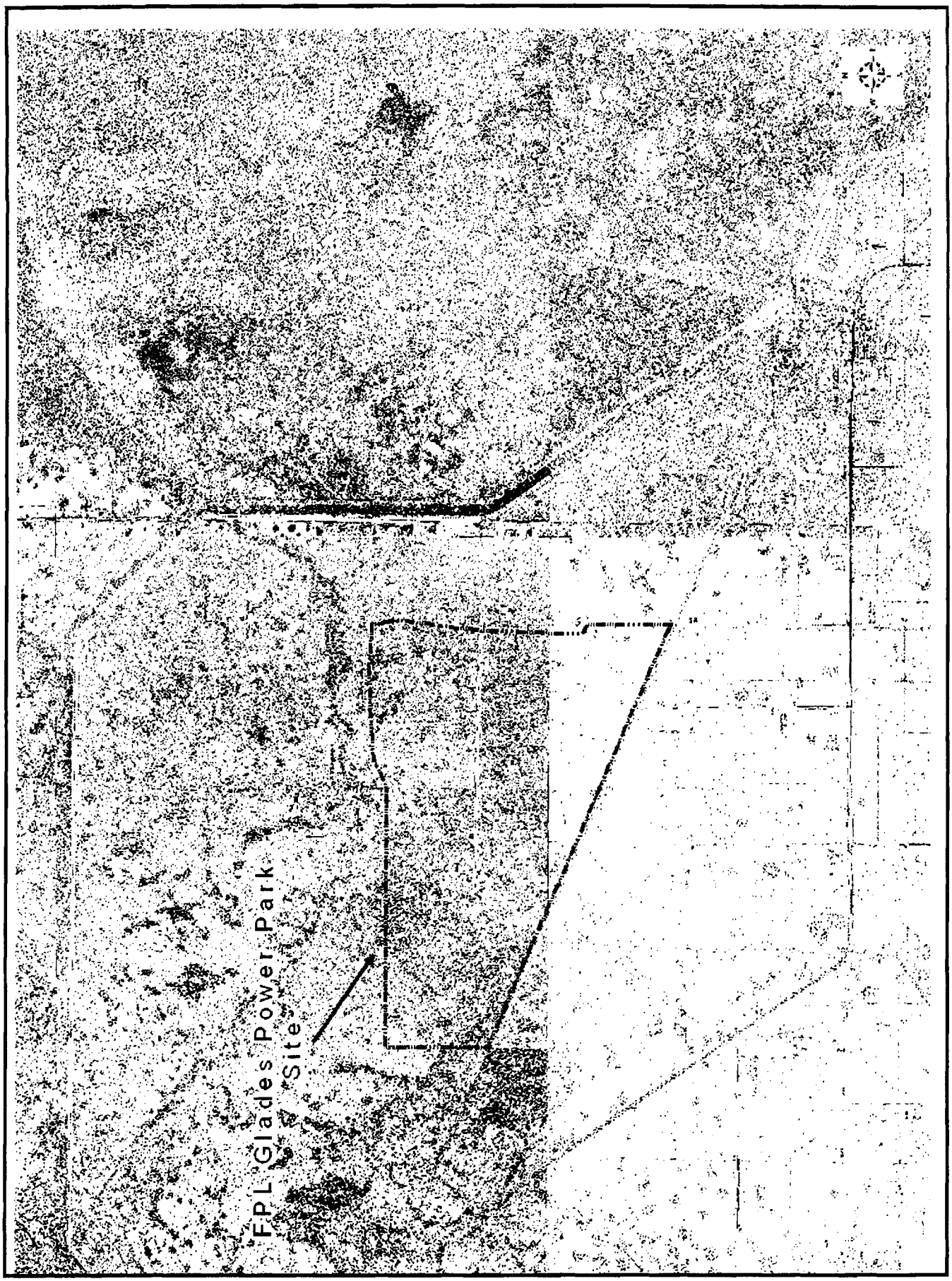
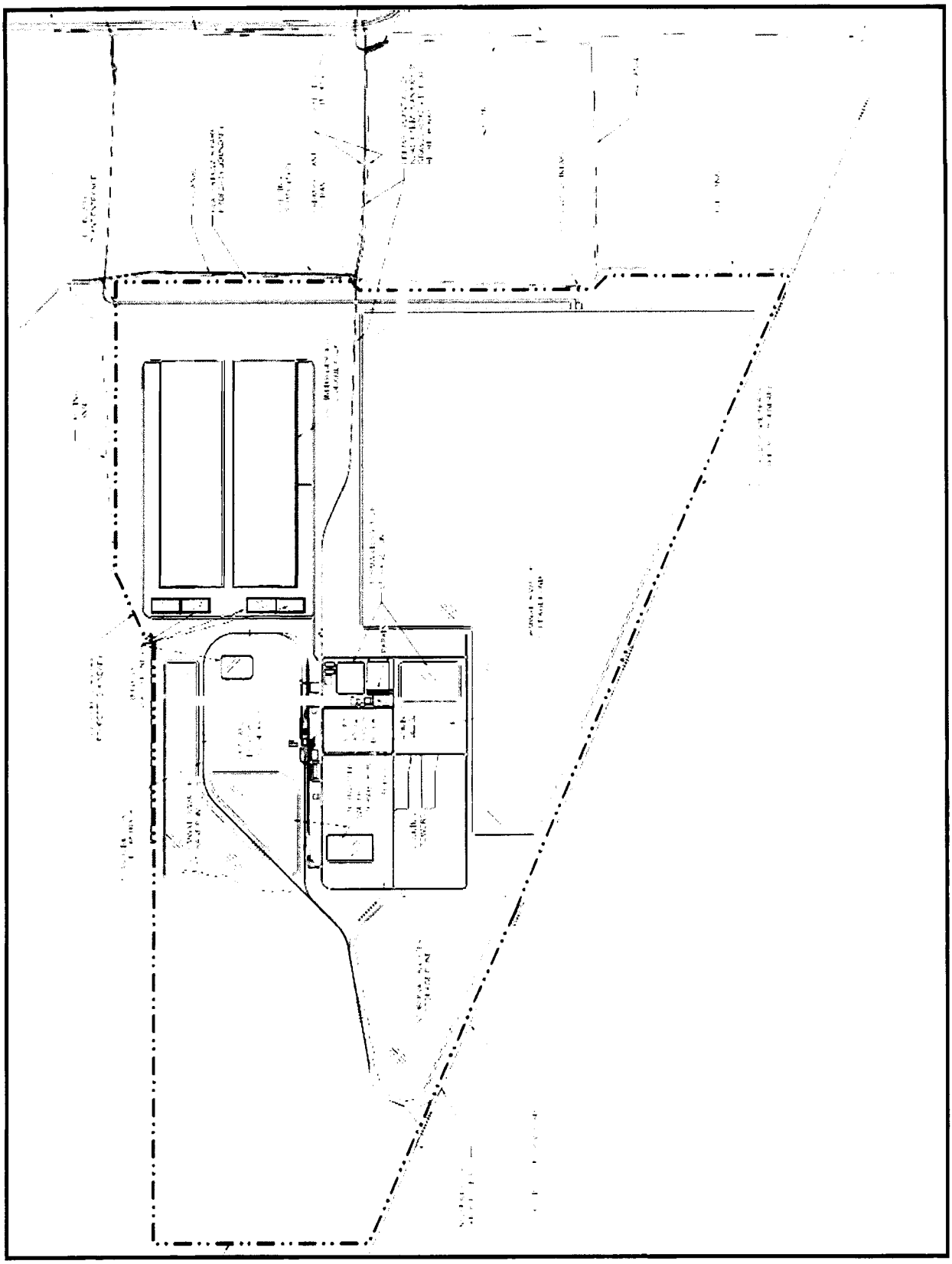

APPROXIMATE SITE BOUNDARY
LAKE OKEECHOBEE
MOORE HAVEN
T 41 S
T 42 S
R 31 E
R 32 E
Cowbone Marsh
Fisheating Bay
CALUSA DELIMITED AREA
MOORE HAVEN DELIMITED AREA
Sportsman Village
CURRY ISLAND
Rim Canal
Moore Haven Canal
RAILROAD
Lake Hicpochee
Citrus Center
SEE INSET "B"
SEE INSET "C"
L-50
C-43


FPL Glades Power Park
Site



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Environmental and Land Use Information:

Supplemental Information

Potential Site: Andytown

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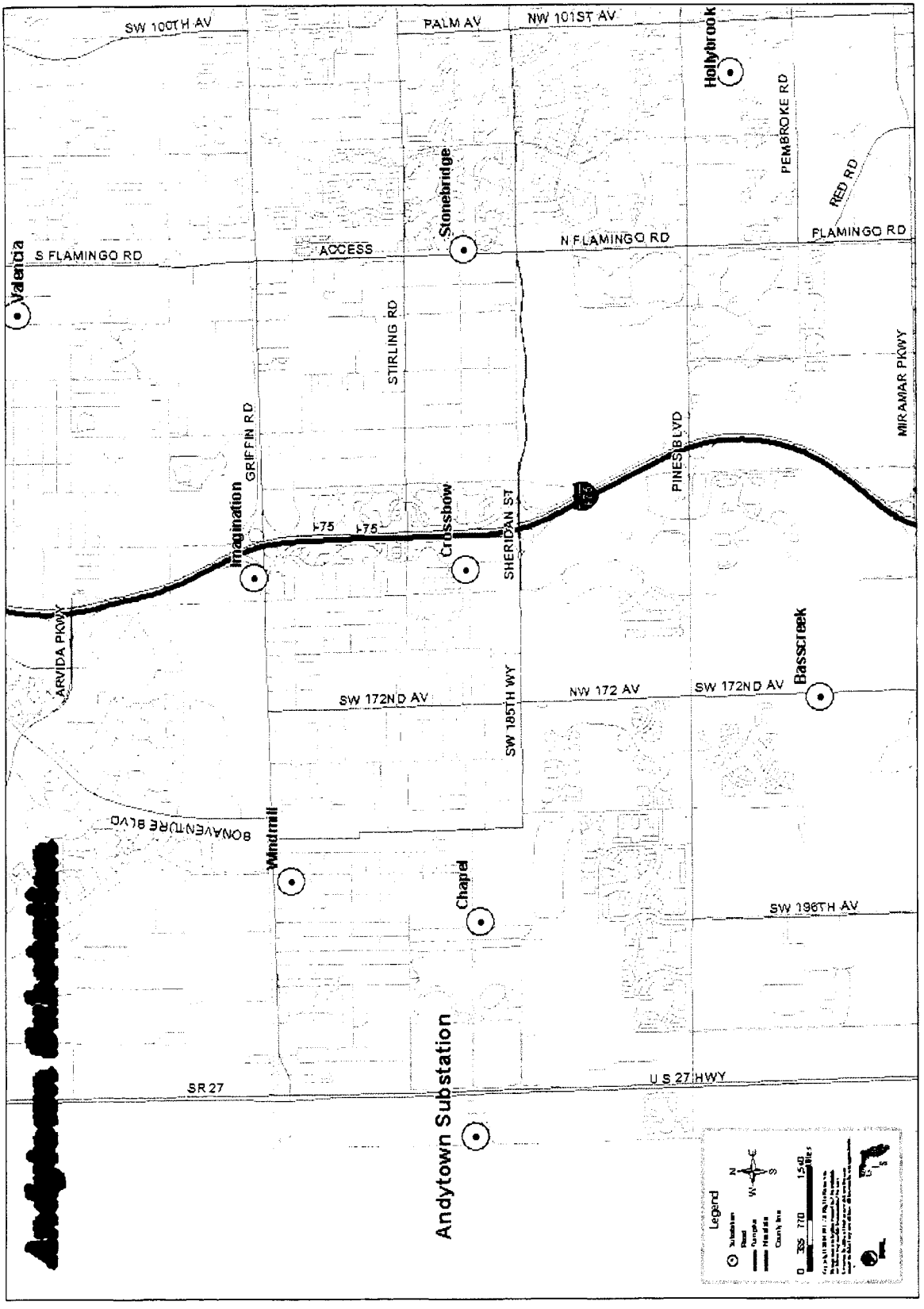
SW 100TH AV
PALM AV
NW 101ST AV
Hollybrook
PEMBROKE RD
RED RD
FLAMINGO RD
S FLAMINGO RD
ACCESS
Stonebridge
N FLAMINGO RD
Valencia
STIRLING RD
GRIFFIN RD
MIRAMAR PKWY
PINES BLVD
Imagination
I-75
I-75
Crossbow
SHERIDAN ST
ARVIDA PKWY
SW 172ND AV
SW 185TH WY
NW 172 AV
SW 172ND AV
Bassctreek
BONAVENTURE BLVD
Windmill
Chapel
SW 196TH AV
SR 27
U S 27 HWY
Andytown Substation
Legend

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Cape Canaveral

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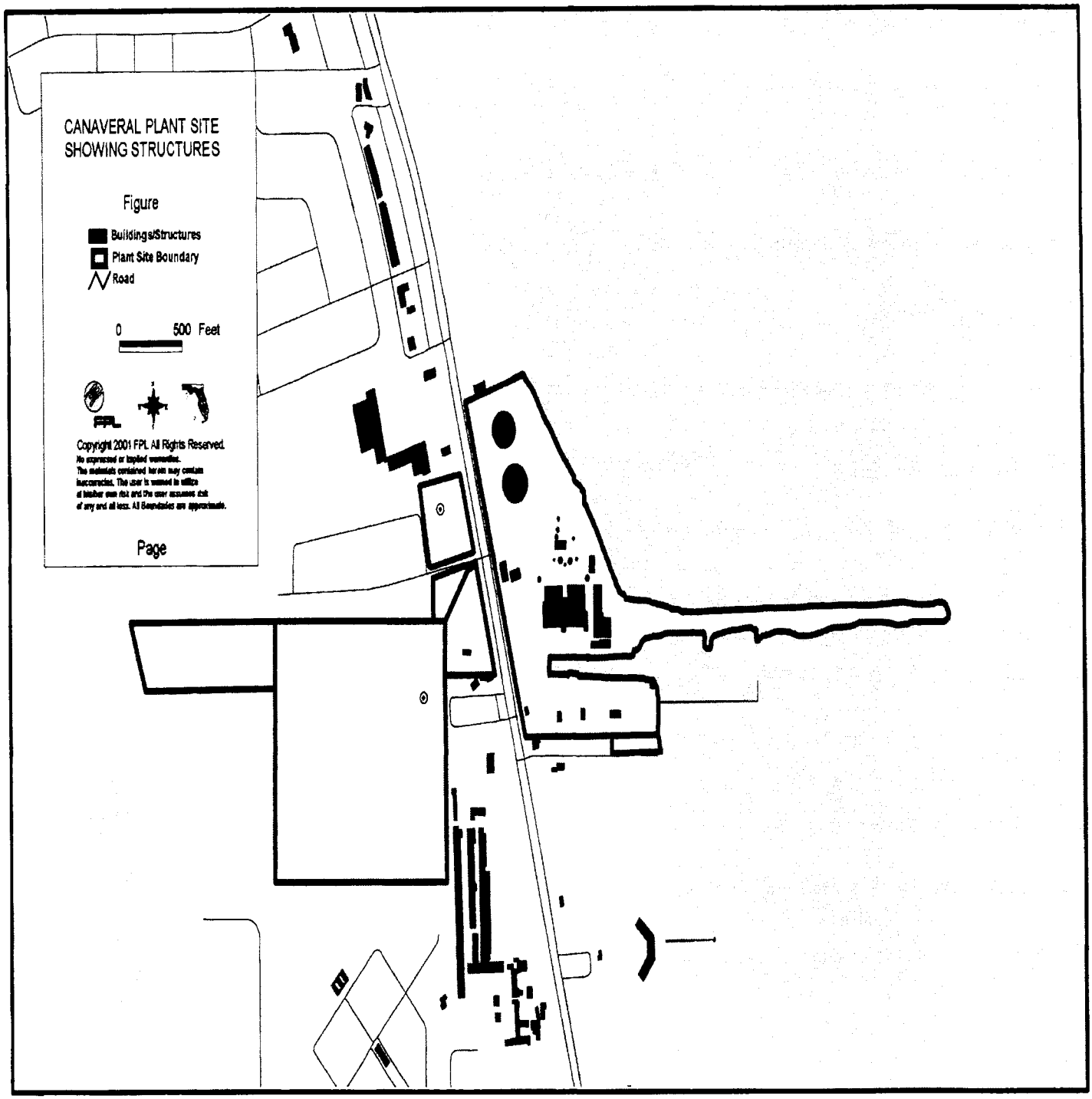
CANAVERAL PLANT SITE
SHOWING STRUCTURES
Figure
Buildings/Structures
Plant Site Boundary
Road
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500 Feet
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Page

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Desoto

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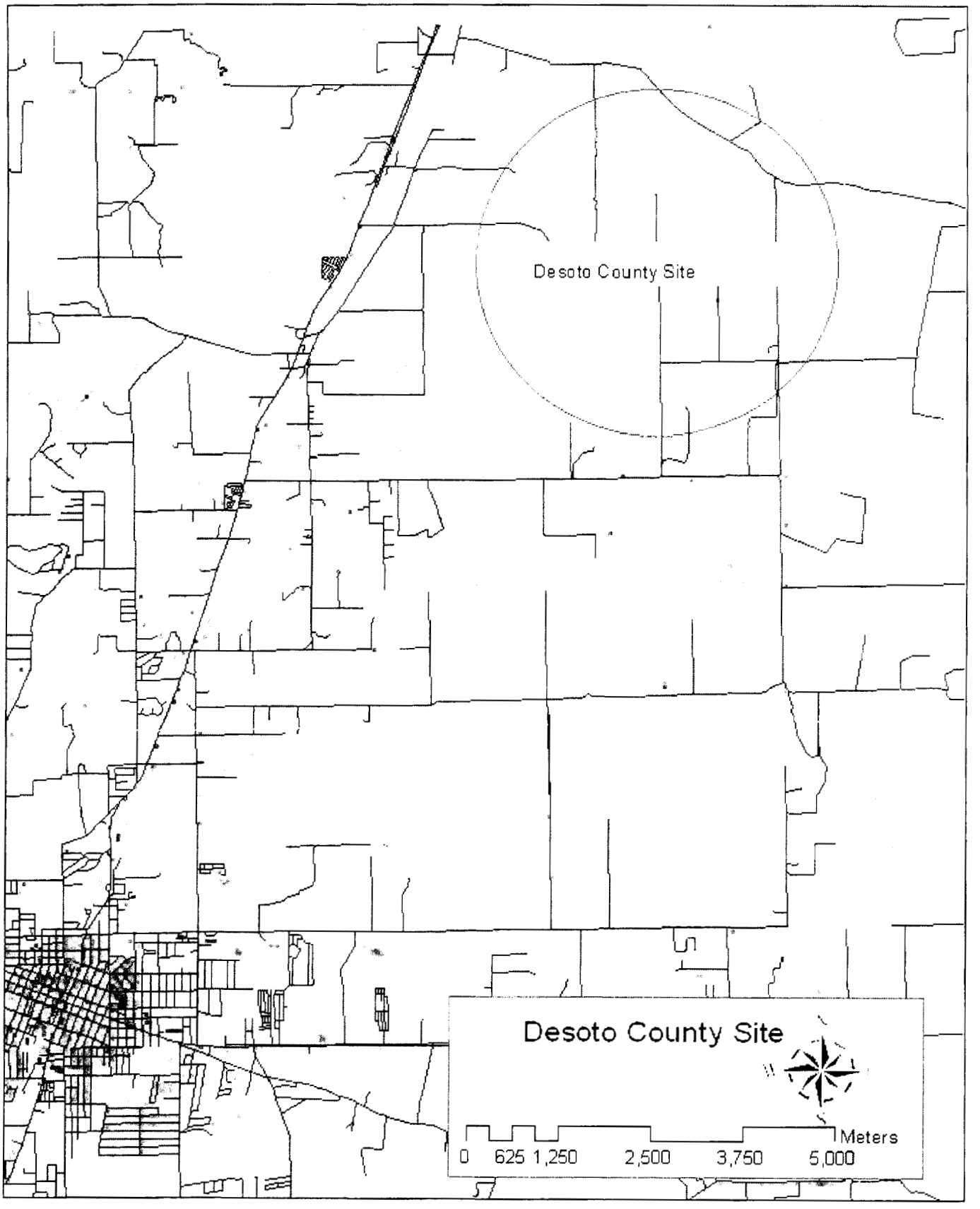
Desoto County Site
Desoto County Site
Meters
0 625 1,250 2,500 3,750 5,000

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Ft. Myers

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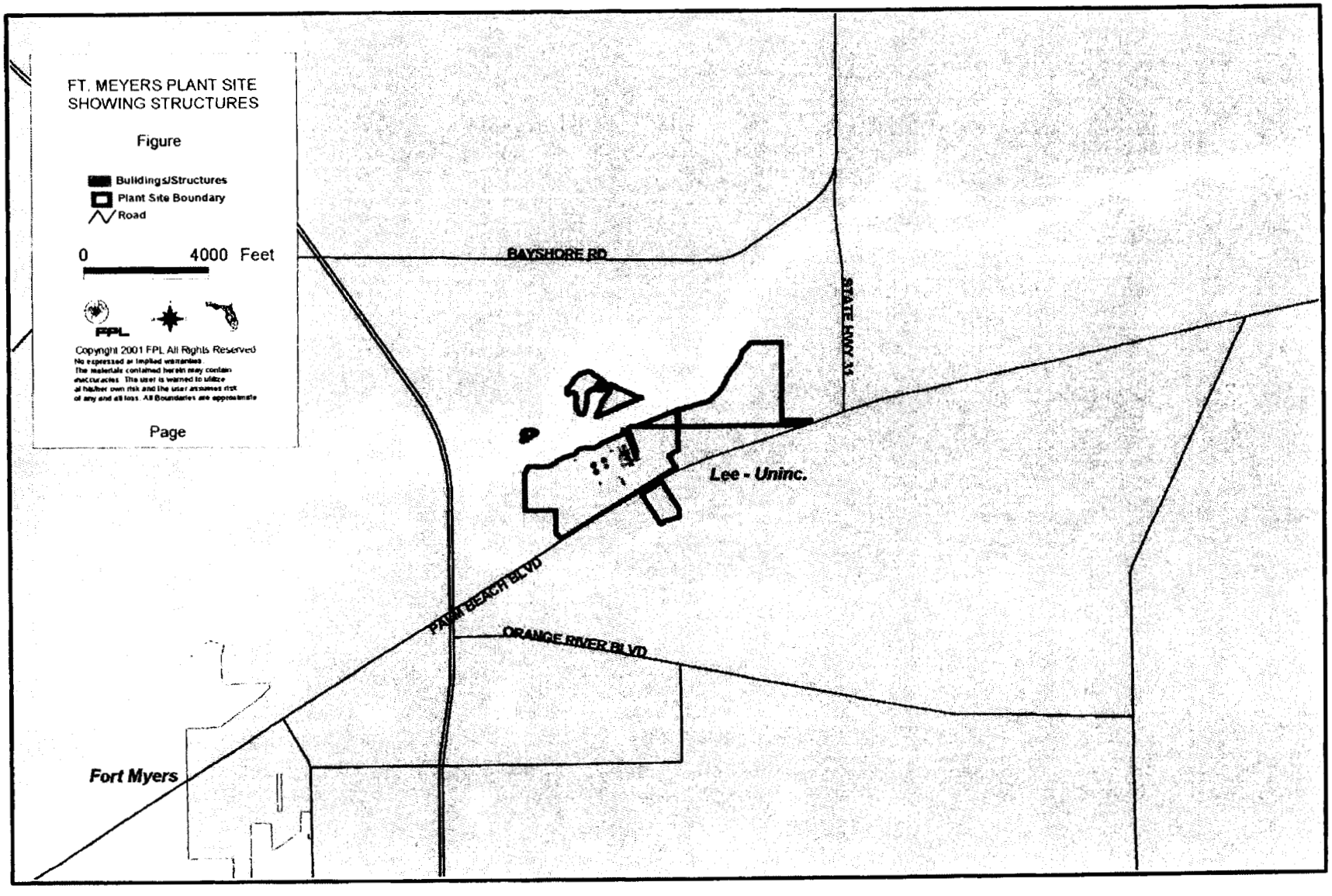
FT. MEYERS PLANT SITE
SHOWING STRUCTURES
Figure
Buildings/Structures
Plant Site Boundary
Road
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4000 Feet
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of any and all loss. All Boundaries are approximate
Page
BAYSHORE RD
STATE HWY 31
Lee - Uninc.
PALM BEACH BLVD
ORANGE RIVER BLVD
Fort Myers

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Lauderdale

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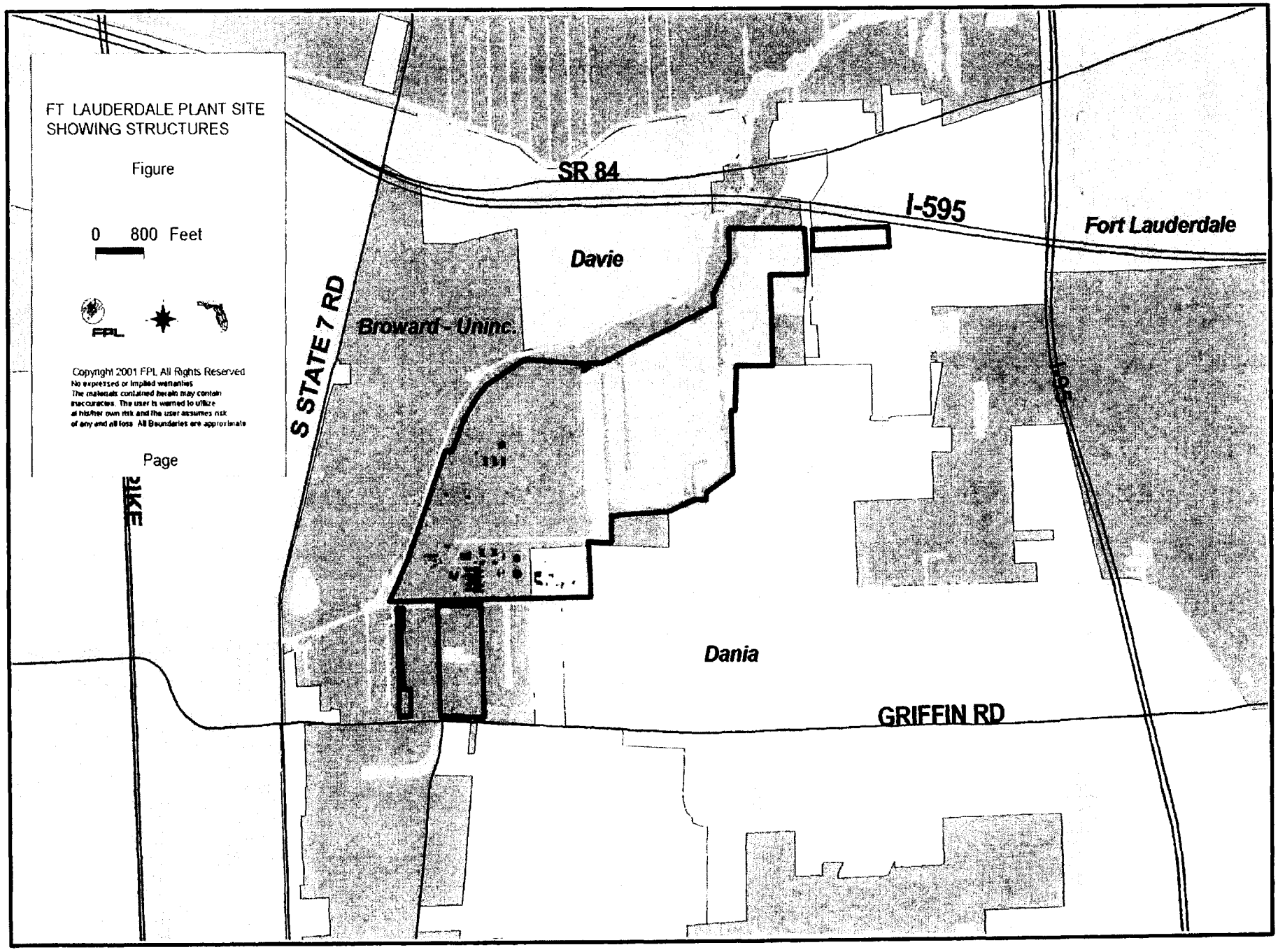
FT LAUDERDALE PLANT SITE
SHOWING STRUCTURES
Figure
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of any and all loss. All Boundaries are approximate
Page
SR 84
I-595
Fort Lauderdale
Davie
Broward - Uninc.
S STATE 7 RD
Dania
GRIFFIN RD

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Martin

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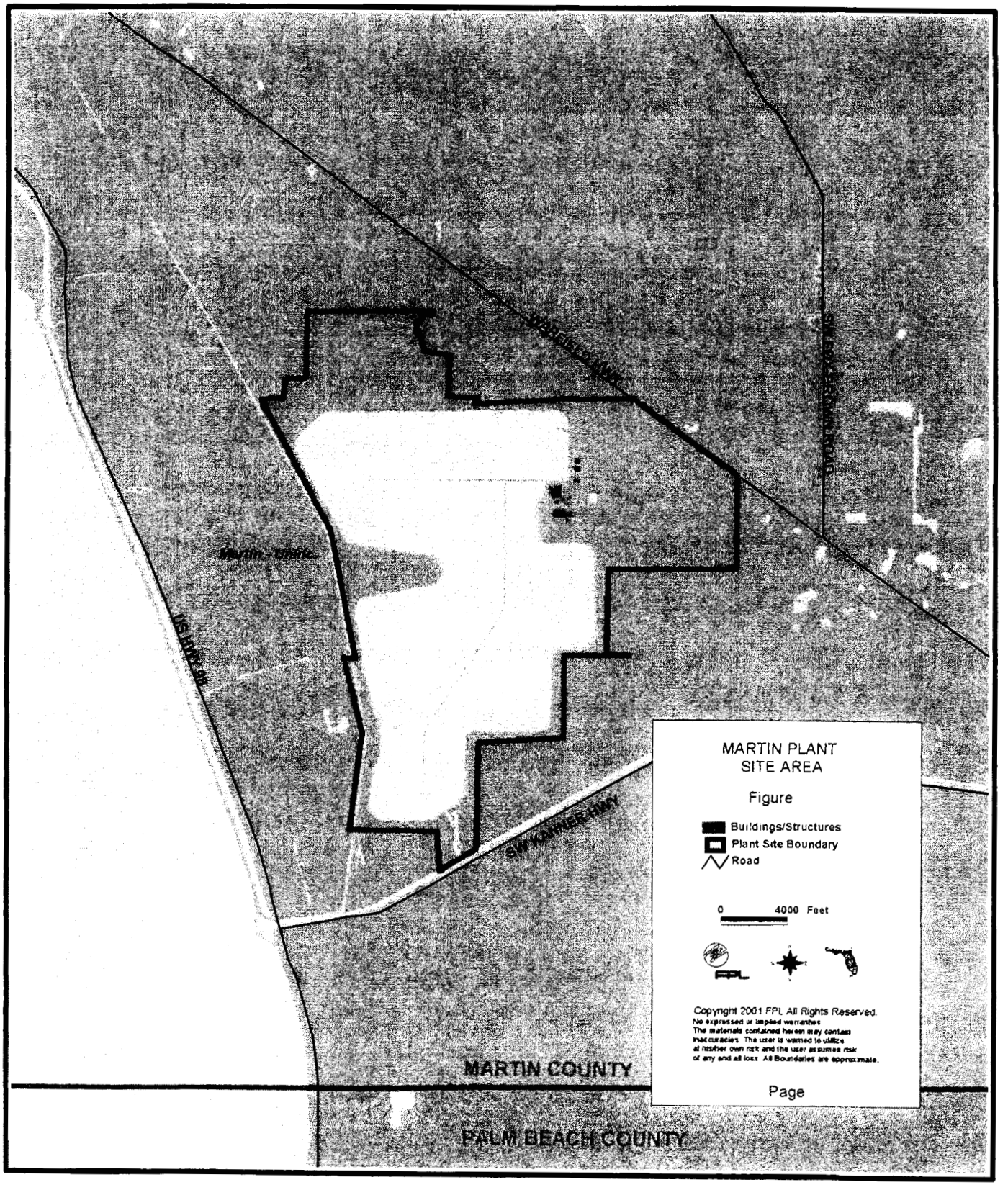
MARTIN PLANT
SITE AREA
Figure
Buildings/Structures
Plant Site Boundary
Road
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of any and all loss. All Boundaries are approximate.
Page
MARTIN COUNTY
PALM BEACH COUNTY
SW KANNER HWY
US HWY 98

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Environmental and Land Use Information:

Supplemental Information

Potential Site: Port Everglades

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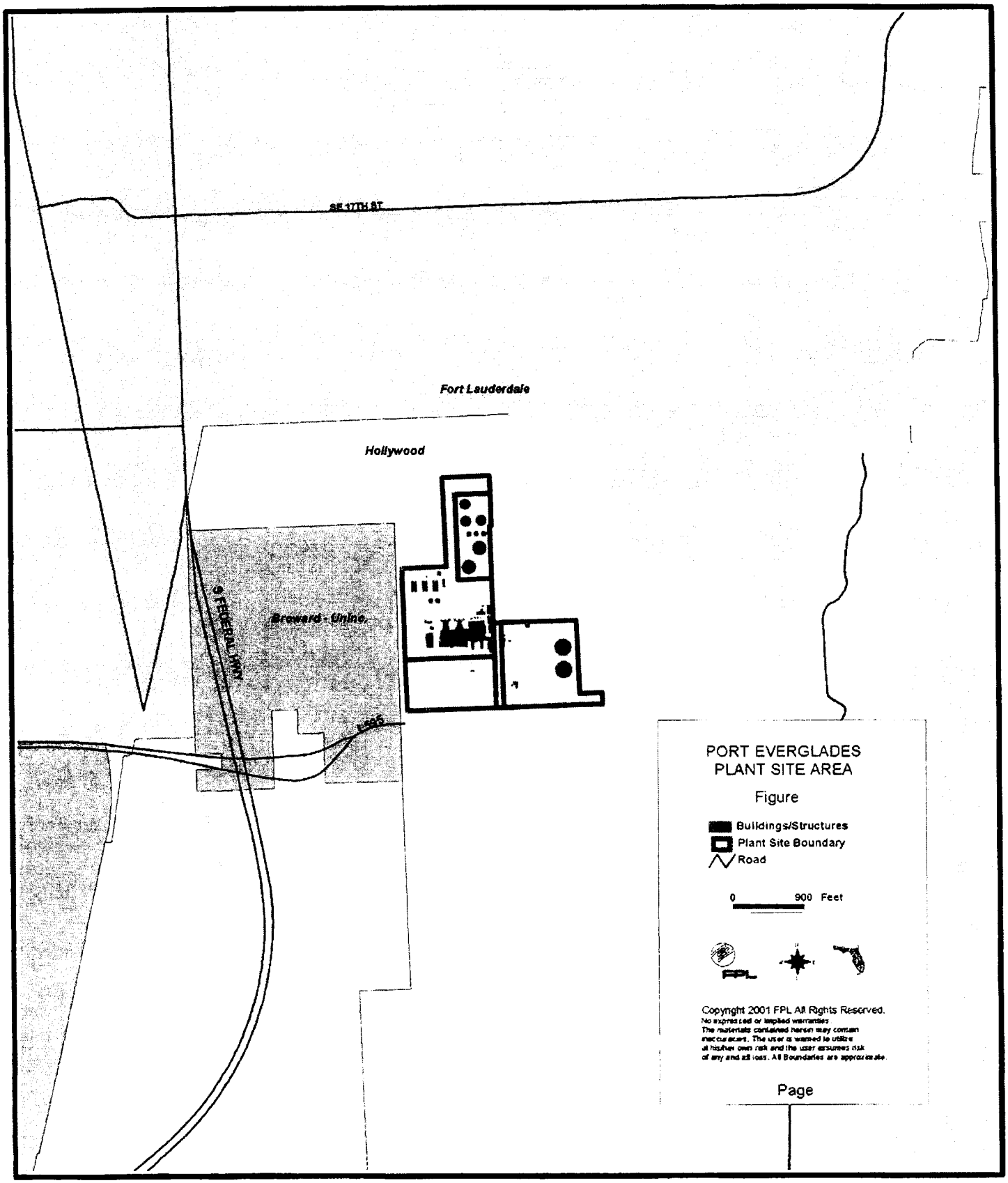
SE 17TH ST
Fort Lauderdale
Hollywood
Broward - Unine.
S FEDERAL HWY
I-595
PORT EVERGLADES
PLANT SITE AREA
Figure
Buildings/Structures
Plant Site Boundary
Road
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900 Feet
FPL
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at his/her own risk and the user assumes risk
of any and all loss. All Boundaries are approximate.
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Environmental and Land Use Information:

Supplemental Information

Potential Site: Riviera Plant

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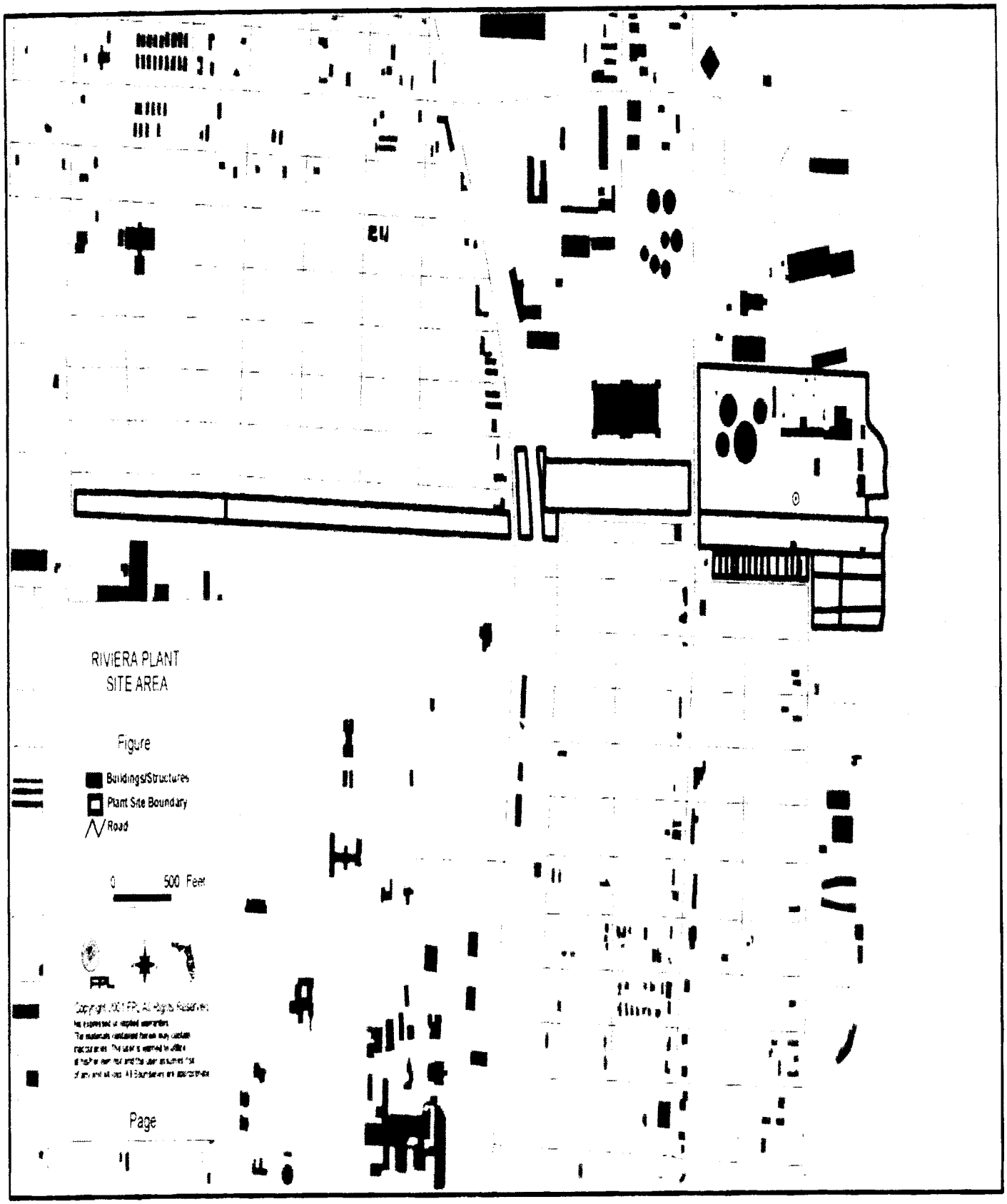
RIVIERA PLANT
SITE AREA
Figure
Buildings/Structures
Plant Site Boundary
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CHAPTER V

Other Planning Assumptions & Information

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Introduction

The Florida Public Service Commission (FPSC), in Docket No. 960111-EU, specified certain information that was to be included in an electric utility's Ten Year Power Plant Site Plan filing. Among this specified information was a group of 12 items listed under a heading entitled "Other Planning Assumptions and Information". These 12 items basically concern specific aspects of a utility's resource planning work. The FPSC requested a discussion or a description of each of these items.

These 12 items are addressed individually below as separate "Discussion Items".

Discussion Item # 1: Describe how any transmission constraints were modeled and explain the impacts on the plan. Discuss any plans for alleviating any transmission constraints.

FPL's resource planning work considers two types of transmission limitations/constraints. External limitations deal with FPL's ties to its neighboring systems. Internal limitations deal with the flow of electricity within the FPL system.

The external limitations are important since they affect the development of assumptions for the amount of external assistance which is available to the FPL system and the amount and price of economy energy purchases. Therefore, these external limitations are incorporated both in the reliability analysis and economic analysis aspects of resource planning. The amount of external assistance which is assumed to be available is based on the projected transfer capability to FPL from outside its system as well as historical levels of available assistance. In its reliability analyses, FPL models this amount of external assistance as an additional generator within FPL's system which provides capacity in all but the peak load months. The assumed amount and price of economy energy are based on historical values and projections from production costing models.

Internal transmission limitations are addressed by identifying potential geographic locations for potential new units that may not adversely impact such limitations. The internal transmission limitations are also addressed by developing the direct costs for siting new units at different locations and by evaluating the cost impacts created by the new unit/unit location combination on the operation of existing units in the FPL system. Both site- and system-related transmission costs are developed for each different unit/unit location option or groups of options.

FPL's annual transmission planning work determines transmission additions needed to address limitations and to maintain/enhance system reliability. FPL's planned transmission facilities to interconnect and integrate FPL's resource plans and those that must be certified under the Transmission Line Siting Act are presented in Section III.E.

Discussion Item # 2: Discuss the extent to which the overall economics of the plan were analyzed. Discuss how the plan is determined to be cost-effective. Discuss any changes in the generation expansion plan as a result of sensitivity tests to the base case load forecast.

FPL typically performs economic analyses of competing resource plans using as an economic criterion FPL's levelized system average electric rates (i.e., a Rate Impact Measure or RIM approach). In addition, for analyses in which DSM levels are not changed, FPL uses the equivalent criterion of the cumulative present value of revenue requirements for the FPL system.[4]

In its 2006 reserve planning work, FPL utilized an updated load forecast. No sensitivity tests to this updated load forecast were utilized.

[4] FPL's basic approach in its resource planning work is to base decisions on a lowest electric rate basis. However, when DSM levels are considered a "given" in the analysis, the lowest rate basis and the lowest system revenue requirements basis are identical. In such cases FPL evaluates options on the simpler – to – calculate (but equivalent) lowest system revenue requirements basis.

Discussion Item # 3: Explain and discuss the assumptions used to derive the base case fuel forecast. Explain the extent to which the utility tested the sensitivity of the base case plan to high and low fuel price scenarios. If high and low fuel price sensitivities were performed, explain the changes made to the base case fuel price forecast to generate the sensitivities. If high and low fuel price scenarios were performed as part of the planning process, discuss the resulting changes, if any, in the generation expansion plan under the high and low fuel price scenario. If high and low fuel price sensitivities were not evaluated, describe how the base case plan is tested for sensitivity to varying fuel prices.

The basic assumptions FPL used in deriving its fuel price forecasts are discussed in Chapter III of this document. FPL's 2006 resource planning work utilized four different fuel cost forecasts (and four different environmental compliance cost forecasts). A detailed discussion of these forecasts, and their impacts on the generation expansion plan, are presented in FPL's Petition To Determine Need for FPL's Glades Power Park Units #1 and #2 Electrical Power Plant filed February 1, 2007.

Discussion Item # 4: Describe how the sensitivity of the plan was tested with respect to holding the differential between oil/gas and coal constant over the planning horizon.

As described above in the answer to Discussion Item #3, FPL used four fuel forecasts in the comparative economic analysis of clean coal generation. While these forecasts did not represent a constant cost differential between oil/gas and coal, four different costs differentials were represented in these forecasts.

Discussion Item # 5: Describe how generating unit performance was modeled in the planning process.

The performance of existing generating units on FPL's system was modeled using current projections for scheduled outages, unplanned outages, capacity output ratings, and heat rate information. Schedule 1 and Schedule 8 present the current and projected capacity output ratings of FPL's existing units. The values used for outages and heat rates are generally consistent with the values FPL has used in planning studies in recent years.

In regard to new unit performance, FPL utilized current projections for the capital costs, fixed and variable operating & maintenance costs, capital replacement costs, construction schedules, heat rates, and capacity ratings for all construction options which were considered in the resource planning work. A summary of this information for the new capacity options FPL projects to add over the planning horizon is presented on the Schedule 9 forms.

Discussion Item # 6: Describe and discuss the financial assumptions used in the planning process. Discuss how the sensitivity of the plan was tested with respect to varying financial assumptions.

The key financial assumptions used in FPL's most recent resource planning work were a 44.2% debt and 55.8% equity FPL capital structure, projected debt cost of 7.2%, and an equity return of 12.3%. These assumptions resulted in a weighted average cost of capital of 10.05% and an after-tax discount rate of 8.82%. FPL did not test the sensitivity of its resource plan to varying financial assumptions.

Discussion Item # 7: Describe in detail the electric utility's Integrated Resource Planning process. Discuss whether the optimization was based on revenue requirements, rates, or total resource cost.

FPL's integrated resource planning (IRP) process is described in detail in Chapter III of this document.

The standard basis for comparing the economics of competing resource plans in FPL's basic IRP process is the impact of the plans on FPL's electricity rate levels with the intent of minimizing FPL's levelized system average rate (i.e., a Rate Impact Measure or RIM approach). As discussed in response to Discussion Item #2, both the electricity rate perspective and the cumulative present value of system revenue requirement perspective are

identical when DSM levels are unchanged between competing plans. Therefore, in planning work in which DSM levels were unchanged, the equivalent cumulative present value of revenue requirements perspective was utilized.

Discussion Item # 8: Define and discuss the electric utility's generation and transmission reliability criteria.

FPL uses two system reliability criteria in its resource planning work. One of these is a minimum 20% Summer and Winter reserve margin. The other reliability criterion is a maximum of 0.1 days per year loss-of-load-probability (LOLP). These reliability criteria are discussed in Chapter III of this document.

In regard to transmission reliability, FPL has adopted transmission planning criteria that are consistent with the planning criteria established by the Florida Reliability Coordinating Council (FRCC). The FRCC has adopted transmission planning criteria that are consistent with the reliability standards established by the North American Electric Reliability Council (NERC) in its *Reliability Standards*. FPL has applied these planning criteria in a manner consistent with prudent utility practice. The *NERC Reliability Standards* are available on the internet (http://www.nerc.com).

In addition, FPL has developed a *Facility Connection Requirements* (FCR) document as well as a *Transmission Facility Rating Methodology* document that are also available on the internet (http://floasis.siemens-asp.com/OASIS/FPL/INFO.HTM).

The normal voltage criteria for FPL stations is given below:

Voltage Level (kV)	Vmin (p.u.)	Vmax (p.u.)
69, 115, 138	0.95/0.95	1.05/1.07
230	0.95/0.95	1.06/1.07
500	0.95/0.95	1.07/1.09

There may be isolated cases for which FPL may determine it prudent to deviate from the general criteria stated above. The overall potential impact on customers and the probability of an outage actually occurring, as well as other factors, would influence the decision in such cases.

Discussion Item # 9: Discuss how the electric utility verifies the durability of energy savings for its DSM programs.

The impact of FPL's DSM Programs on demand and energy consumption is revised periodically. Engineering models, calibrated with field-metered data, are updated when significant efficiency changes occur in the marketplace. Participation trends are tracked for all of the FPL DSM programs in order to adjust impacts each year for changes in the mix of efficiency measures being installed by program participants.

Survey data is collected from non-participants in order to establish the baseline efficiency. Participant data is compared against non-participant data to establish the demand and energy saving benefits of the utility program versus what would be installed in the absence of the program. Finally, FPL is careful to claim only program savings for the average life of the installed efficiency measure. For these DSM measures which involve the utilization of load management, FPL conducts periodic tests of the load control equipment to ensure that it is functioning correctly.

Discussion Item # 10: Discuss how strategic concerns are incorporated in the planning process.

Among the strategic factors FPL typically considers when choosing between resource options are the following: (1) fuel diversity; (2) technology risk; (3) environmental risk, and (4) site feasibility. The consideration of these factors may include both economic and non-economic aspects.

Fuel diversity relates to two concepts, the diversity of sources of fuel (e.g., coal vs. oil vs. natural gas), and the diversity of supply for a single fuel source (for example alternative pipeline suppliers for natural gas). All other factors being equal, supply options that increase diversity in fuel source and/or supply would be favored over those that do not.

Technology risk is an assessment of the relative maturity of competing technologies. For example, a prototype technology which has not achieved general commercial acceptance has a higher risk than a technology in wide use and, therefore, is less desirable.

Environmental risk is an assessment of the relative environmental acceptability of different generating technologies and their associated environmental impacts on the FPL system, including environmental compliance costs. Technologies regarded as more acceptable from

an environmental perspective for a plan are those which minimize environmental impacts through highly efficient fuel use and state of the art controls (e.g., advanced technology coal technologies versus conventional pulverized coal).

Site feasibility assesses a wide range of economic, regulatory, and environmental factors related to successfully developing and operating the specified technology at the site in question. Projects that are more acceptable have sites with few barriers to successful development.

All of these factors play a part in FPL's planning and decisions, including its decisions to construct capacity or to purchase power.

Discussion Item # 11: Describe the procurement process the electric utility intends to utilize to acquire the additional supply-side resources identified in the electric utility's ten-year site plan.

As has been previously discussed, elements of FPL's capacity additions include the construction of new generating capacity at an existing site; Turkey Point and at a new site; West County Energy Center. These generation construction projects were selected after evaluating competing bids received in response to Requests for Proposals (RFP) issued by FPL. The FPSC subsequently approved FPL's decision to construct these new combined cycle units in Determination of Need dockets.

In 2006 FPL sought, and was granted by the FPSC, a waiver from the RFP requirement of the Bid Rule in order to seek approval for advanced technology coal generation as early as possible. FPL filed its Need petition for two advanced technology coal units with the FPSC on February 1, 2007.

The construction capacity addition decisions projected in this document for 2015 and beyond are expected to be conducted in a manner consistent with the Commission's Bid Rule.

Identification of self-build options beyond those units already approved by the FPSC and Governor and Siting Board, or units for which FPL is currently seeking approval, in FPL's Site Plan is not an indication that FPL has pre-judged any capacity solicitation it may conduct. The identification of future capacity units is required of FPL and represents those alternatives that appear to be FPL's best, most cost-effective self-build options at this time. FPL reserves the

right to refine its planning analyses and to identify other self-build options. Such refined analyses have the potential to yield a variety of self-build options, some of which might not require an RFP. If an RFP is issued for supply-side resources, FPL reserves the right to choose the best alternative for its customers, even if that option is not an FPL self-build option.

Discussion Item # 12: Provide the transmission construction and upgrade plans for electric utility system lines that must be certified under the Transmission Line Siting Act (403.52 – 403.536, F. S.) during the planning horizon. Also, provide the rationale for any new or upgraded line.

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(1) FPL has identified the need for a new 230kV transmission line (by December 2008) that requires certification under the Transmission Line Siting Act. The new line will connect FPL's St. Johns Substation to FPL's proposed Pringle Substation (also shown on Table III.E.1). The construction of this line is necessary to serve existing and future customers in the Flagler and St. Johns areas in a reliable and effective manner.

(2) FPL has identified the need for a new 230kV transmission line (by December 2011) that requires certification under the Transmission Line Siting Act. The new line will connect FPL's Manatee Substation to FPL's proposed BobWhite Substation (also shown on Table III.E.1). The construction of this line is necessary to serve existing and future customers in the Manatee and Sarasota areas in a reliable and effective manner.

(3) Additionally, FPL has identified the need for a new 230kV transmission line (by June 2012) that requires certification under the Transmission Line Siting Act. The new line will connect a future FPL substation in the Grove Area (TBD) to FPL's Sweatt Substation (also shown on Table III.E.1). The construction of this line is necessary to serve existing and future customers in the Okeechobee and St. Lucie areas in a reliable and effective manner.