

1.0 INTRODUCTION AND GENERAL INFORMATION

This chapter of the Site Certification Application (SCA) introduces Florida Power & Light Company (FPL or the Company), provides an overview of the Port Everglades Next Generation Clean Energy Center Project (“PEEC” or “Project”) for which FPL seeks certification, including dismantlement of the existing Port Everglades Units 1 through 4 and construction of the modernized Plant, and provides a summary of FPL’s public outreach program for the Project.

1.1 Introduction

FPL proposes to modernize the existing Port Everglades Plant Units 1 through 4 (i.e., conventional 1960s era residual oil and gas-fired generating units and support facilities) into a modern, highly efficient, lower-emission next generation clean energy center using the latest combined cycle technology. The modernized unit will be located wholly within the existing Port Everglades Plant Property. The modernization will result in a small increase in power generation without using additional land and using less water. The Project will be more energy efficient than the existing Units 1 through 4 and will provide cleaner energy to FPL’s customers. The Project will use approximately 35 percent less fuel than the existing Units 1 through 4, for an equivalent amount of electricity production. The Project name is the Port Everglades Next Generation Clean Energy Center, with an in-service date for the Project of June 2016.

There will be significant benefits associated with the Project. The Project allows the redevelopment of the existing Port Everglades Plant Property and existing infrastructure. The Port Everglades Plant provides the infrastructure for a new combined cycle unit that includes an existing developed site dedicated to generation of electricity, existing cooling water systems, existing gas delivery infrastructure, and access to the FPL transmission system.

Regulated air emissions with the Project will be approximately 90 percent lower than the existing emissions for Units 1 through 4, resulting in significant air quality benefits. In addition, there will be a cumulative reduction of approximately 22 million tons of CO₂ emissions in FPL’s system from 2016 through 2047 with the Project. The existing FPL Port Everglades Plant Property is located within the City of Hollywood on approximately 92.5 acres within the jurisdictional area of Port Everglades (mid-port section). The Site includes approximately 67.1 acres of the Plant property leaving the remaining acreage for the following non-associated facilities: 12 existing simple cycle gas turbines, fuel storage, system substation, and leased properties. The general location of the Port

Everglades Plant and the PEEC Site is presented in Figure 1.1.0-1.

FPL has operated a power plant on the Port Everglades Plant Property since 1960. Units 1 and 2, which are nominal 200 megawatt (MW) units, went into service in 1960 and 1961, respectively. The commercial in-service dates for Units 3 and 4, which are nominal 400 MW units, were 1964 and 1965, respectively. All four units have remained in service since those dates.

Exhibit A presents the Site legal description on FPL Port Everglades Plant property, and Section 3.2.4 and Appendix 10.12 (Leases, Easements, Title, Agency Works) present information on easements related to the intake and discharge canals and conveyances. Together these documents provide legal descriptions for the Certified Site.

FPL is seeking approval of the PEEC Project under the Florida Electrical Power Plant Siting Act (PPSA), Chapter 403, Part II, Florida Statutes (F.S.). The PPSA provides a centralized review process for new electrical generating facilities in Florida, involving a balancing of “the increasing demand for electrical power plants with the broad interests of the public.” The Florida Public Service Commission (FPSC) is the sole forum for the determination of need for a proposed facility (Section 403.519, F.S.). The Florida Department of Environmental Protection (FDEP) acts as the coordinator for the remainder of the site certification process, with input from various state, regional, and local agencies, along with interested citizens. Ultimate disposition of the SCA is by either the Governor and Cabinet sitting as the Siting Board, or the Secretary of the FDEP. This SCA is being filed with FDEP pursuant to Chapter 62-17, Florida Administrative Code (F.A.C.). The SCA describes the Project and addresses its environmental and socioeconomic aspects by presenting information on the existing natural and human environment; the facilities to be dismantled, constructed and operated; and the impacts of the Project on those environments. The format for this SCA follows the draft “*Application Instruction Guide: Electrical Power Plant Sites and Associated Facilities Electrical Transmission Lines*” issued by FDEP and revised September 1, 2009. FPL is concurrently filing with FDEP an Air Construction/Prevention of Significant Deterioration (PSD) Permit Application and an application to modify the Industrial Wastewater (IWW) Permit.

1.2 The Applicant

FPL, a subsidiary of NextEra Energy, Inc., is the largest electric utility in Florida. FPL serves approximately 4.5 million customer accounts, approximately 8.7 million people, with a service

territory in all or parts of 35 Florida counties (Figure 1.2.0-1).

FPL's existing generating resources are located at power plant sites (Figure 1.2.0-1) distributed geographically around its service territory, and also include partial ownership of two units located in Jacksonville, Florida, and one unit in Georgia. The total summer system firm generating capability as of December 31, 2010 is 23,687 MW consisting of nuclear units (2,939 MW), coal units (900 MW), combined cycle units (11,466 MW), oil/gas fossil steam units (6,159 MW), combustion turbines (315 MW), and gas turbines (1,908 MW) (FPL, 2011). In addition, there are two photovoltaic (PV) facilities with a generation capacity of 35 MW and a solar-thermal facility that is capable of producing steam that is equivalent to 75 MW. The solar-thermal facility is the world's first "hybrid" energy center to combine solar-thermal technology with an existing combined-cycle generation unit.

FPL's bulk transmission system is composed of approximately 6,721 circuit miles of transmission lines. Integration of the generation, transmission, and distribution system is achieved through FPL's approximately 587 substations (FPL, 2011).

FPL is a leader among the nation's electric utilities for its partnerships with customers in conservation and in energy management (see Appendix 10.8, NextEra Energy, Inc's and Florida Power & Light Company's Greenhouse Gas Strategy).

The following information addresses the applicant identification requirements:

Applicant's Official Name:	<u>Florida Power & Light Company (FPL)</u>
Address:	<u>700 Universe Boulevard, Juno Beach, FL 33408</u>
Address of Official Headquarters:	<u>700 Universe Boulevard, Juno Beach, FL 33408</u>
Business Entity (corporation, partnership, co-operative):	<u>Corporation</u>
Name and Title of Chief Executive Officer:	<u>Armando J. Olivera, CEO</u>
Name, Address, and Phone Number of Official Representative responsible for obtaining certification:	<u>Barbara Linkiewicz, Director of Environmental Licensing, New Generation Projects, Environmental Services Department, 700 Universe Boulevard, JES/JB, Juno Beach, FL 33408</u> <u>Phone: (561) 691-7518 Fax: (561) 691-7049</u>
Site Location (county):	<u>Broward County</u>
Nearest Incorporated Cities:	<u>City of Hollywood</u>
Latitude and Longitude:	<u>26° 05' 08"; 80° 07' 31".</u>
UTM Coordinates:	Northerly <u>2,885.25 kilometers (km) N;</u> Easterly <u>587.38 km E (Zone 17)</u>
Section, Township, Range:	<u>Portion of Section 23, Township 50 South, Range 42 East</u>
Name Plate Generating Capacity:	<u>Site Certification: Modernization of existing nominal 1,200-MW oil/gas steam electric generating facility into a nominal 1,250-MW (net) combined cycle unit</u>

1.3 Overview of the Project

The Project will be a 3-on-1 combined cycle unit, which will consist of three new advanced technology combustion turbine/electric generators (CTs), three new heat recovery steam generators (HRSGs), and one steam turbine/electric generator. The CTs are similar to, but much larger and more efficient than, traditional jet engines. The CTs produce electrical energy by direct connection to an electric generator. The exhaust heat from the CTs, which would otherwise be wasted energy released to the atmosphere, will be routed through the HRSGs, which act as boilers to produce steam for the new steam turbine generator to produce additional electricity. Natural gas will be the primary fuel for PEEC. Ultra low-sulfur distillate (ULSD) "light oil" will be used as a backup fuel for the CTs. The cooling water source for the Project will be seawater from the Intracoastal Waterway (ICW) via the

existing Port Everglades Slip No. 3 that will continue to provide once-through cooling water for PEEC. The municipal water supply for the existing Plant from the City of Fort Lauderdale will continue to be used for process and potable water. By using natural gas as the primary fuel for PEEC and technology that is recognized by FDEP as the Best Available Control Technology (BACT) for minimizing air emissions, PEEC will be among the cleanest and most efficient fossil fuel-fired, electric-power generating units in Florida.

Decommissioning and dismantling of the existing generating Units 1 through 4 will be part of the Project and will be required prior to the construction of the 3-on-1 combined cycle unit. Certain components, such as the cooling-water intake and discharge infrastructure and transmission facilities, will remain in use with the Project. The Project will interconnect with FPL's transmission network through the existing adjacent system substation.

The Project is estimated to generate approximately \$372 million in tax revenue from 2016 to 2046. This is comprised of approximately \$114 million to the City of Hollywood, approximately \$126 million to Broward County, approximately \$122 million to the Broward County School District, and approximately \$10 million for other taxing authorities [South Florida Water Management District (SFWMD) and Florida Inland Navigation District].

1.4 Summary of Public Outreach Program

FPL believes it is important to involve the community in the licensing process of projects as they are designed to generate and deliver clean and reliable power to customers. Representatives of FPL have been involved with the local community surrounding the Port Everglades Plant for many years. At all times and utilizing several communication channels, FPL seeks constructive and collaborative dialogue with neighbors to both provide information on a project and gain input from the local community. FPL's goal is to ensure that interests and specific information particular to communities are taken into account.

The Project was formally announced on July 18, 2011. At that time, FPL took the initial step to seek state regulatory approval with the FPSC by filing a bid waiver. FPL reached out to approximately 50 stakeholder groups including elected officials, environmental groups, government agencies, and surrounding counties and cities (see Appendix 10.1 Coordination). Local TV, radio, and print media outlets were notified about the Project to inform residents surrounding the Site. On November 21, 2011, FPL filed a need determination with the FPSC. In February 2012 FPL will mail out more than

28,000 letters to residents and business owners within a 3-mile radius of the Site informing them of the Project and identifying several communication channels that they can use to provide feedback. Several presentations have been made to local community groups, including civic and neighborhood associations, as well as detailed Project presentations at public local meetings. Over the past 6 months and throughout the Project in the future, FPL has and will continue to maintain contact with the community utilizing the following methods:

- Project website: www.FPL.com/PortEverglades
- Email: PortEverglades@FPL.com
- Toll-free telephone number: 1-800-693-3267
- FPL Facebook: www.facebook.com/fplconnect
- FPL Twitter: www.twitter.com/insideFPL
- Direct mailing to adjacent area property owners, FPL customers, and concerned citizens.

FPL is committed to responding to comments and questions in a timely manner. FPL's goal is to be the first and best source of information about the Project.

Exhibit A**Site Legal Description on FPL Port Everglades Plant Property**

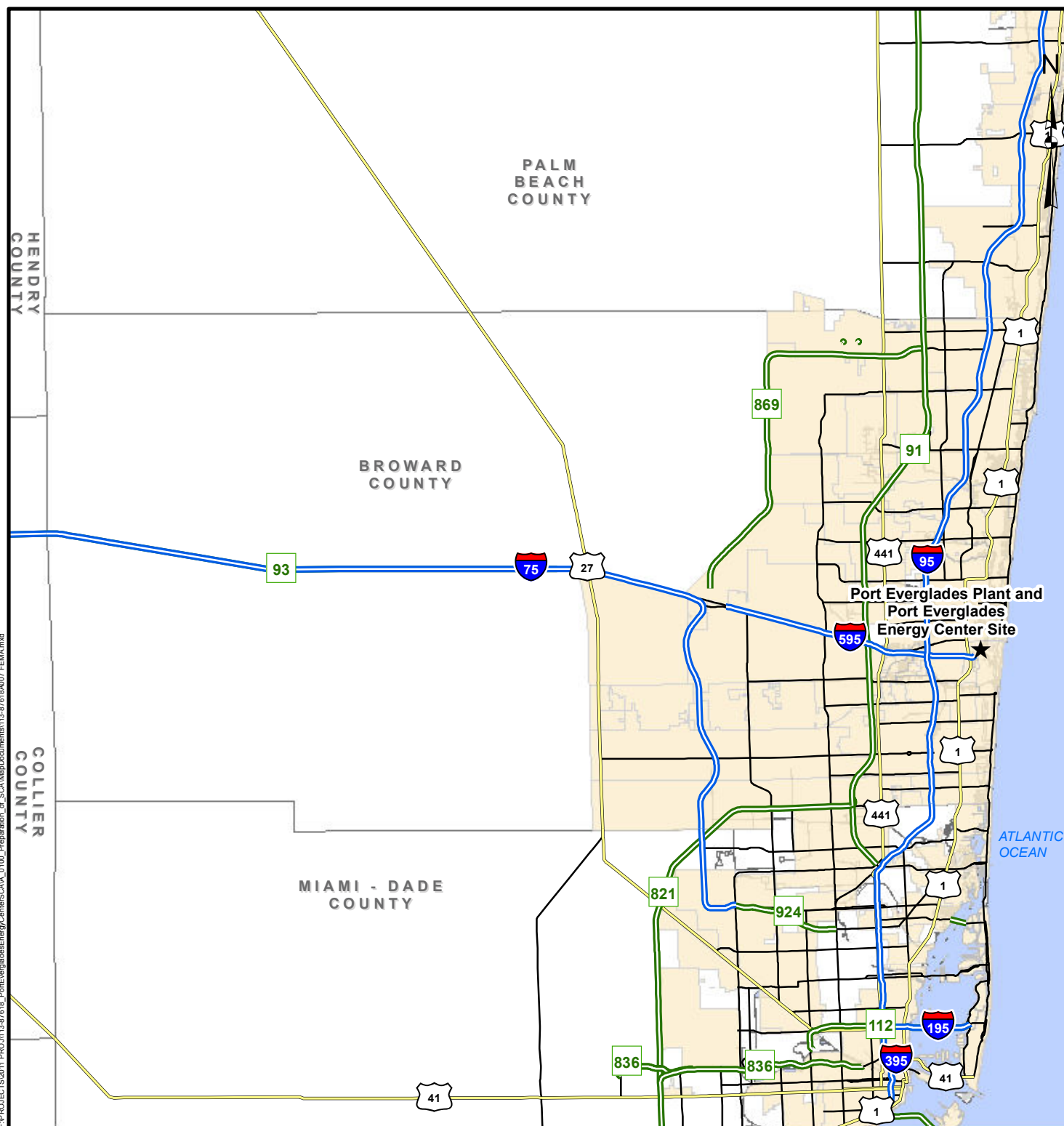
A Parcel of land being a portion of Parcels I, K, 14, 15, 16, 17 and 18 of PORT EVERGLADES SUBDIVISION No. 1, Plat Book 26, Page 6 as recorded in the Public Records of Broward County, Florida and being in Section 23, Township 50 South, Range 42 East, Broward County, Florida, being described as follows:

BEGINNING at the Northwest corner of Parcel 14 being on the South line of Parcel "E" (S.E. 26th Street); thence N 87°56'09" E, along said South line, 713.55 feet to a point on the East line of Parcel "K" (Eisenhower Boulevard); thence S 01°08'14" E, along said East line, 148.00 feet; thence S 88°20'39" W, 315.44 feet; thence S 02°49'02" E, 293.10 feet; thence N 87°39'22" E, 206.96 feet to the West line of Parcel "K" (Eisenhower Boulevard); thence S 01°08'26" E, along said West line, 212.22 feet to the Southwest corner of said Parcel "K"; thence S 87°54'32" W, along the North line of Parcel "J", 20.90 feet; thence S 02°02'58" E, along the West line of Parcel "J" (Eisenhower Boulevard), 1251.73 feet to the Southwest corner of Parcel "J"; thence N 88°02'16" E, along the South line of Parcel "J" and Parcel 12, a distance of 334.19 feet; thence S 01°48'28" E, 140.55 feet; thence N 87°37'41" E, 142.63 feet; thence S 02°01'16" E, 70.57 feet; thence N 88°29'10" E, 183.26 feet; thence S 02°45'20" E, 716.38 feet; thence S 88°43'31" E, 425.45 feet; thence N 88°01'47" E, 280.41 feet to a point on the East line of Section 23, Township 50 South, Range 42 East; thence S 02°30'52" E, along said East line, 149.94 feet to the North line of Parcel A of PORT EVERGLADES PLAT No. 8, Plat Book 157, Page 35 as recorded in the Public Records of Broward County, Florida; thence S 88°04'32" W along said North line, 1222.80 feet; thence N 51°09'59" W, 128.06 feet; thence N 12°22'36" W, 354.06 feet; thence N 27°04'22" W, 71.75 feet; thence N 75°54'11" W, 30.43 feet; thence N 85°41'53" W, 245.45 feet; thence S 80°33'28" W, 22.41 feet; thence N 87°19'28" W, 316.58 feet; thence N 46°50'43" W, 57.32 feet; thence N 02°04'13" W, 58.69 feet; thence S 87°56'04" W, 109.31 feet; thence N 02°04'16" W, 64.75 feet; thence S 87°55'53" W, 114.69 feet; thence N 01°50'29" W, 410.98 feet; thence S 86°52'30" W, 237.77 feet to the East line of Parcel "H" (S.E. 14th Avenue); thence N 02°04'04" W, along said East line, 364.18 feet; thence N 87°56'04" E, 278.82 feet; thence S 02°04'02" E, 159.39 feet; thence N 87°54'26" E, 285.80 feet; thence N 07°46'19" E, 127.53 feet; N 04°38'59" W, 396.50 feet; thence N 02°03'51" W, along the West line of Parcel 14, a distance of 1149.40 feet to the POINT OF BEGINNING.

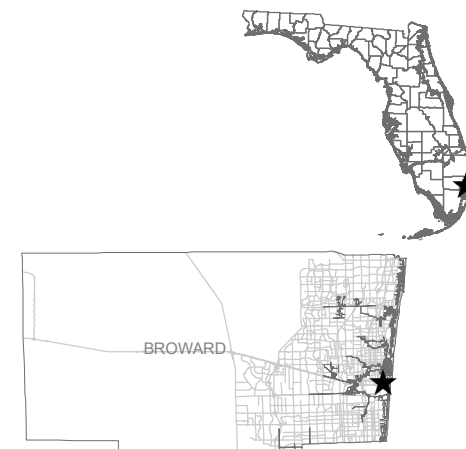
Said lands situate in Broward County, Florida and containing 2,494,313 square feet, 57.262 acres, more or less.

See SCA Appendix 10.12 Leases, Easements, Title, Agency Works for the legal descriptions of easements related to the intake and discharge canals and conveyances. Together these documents provide descriptions for the Certified Site.

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AREA MAP

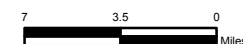


LEGEND

- ★ Port Everglades Plant and Port Everglades Energy Center Site

REFERENCES

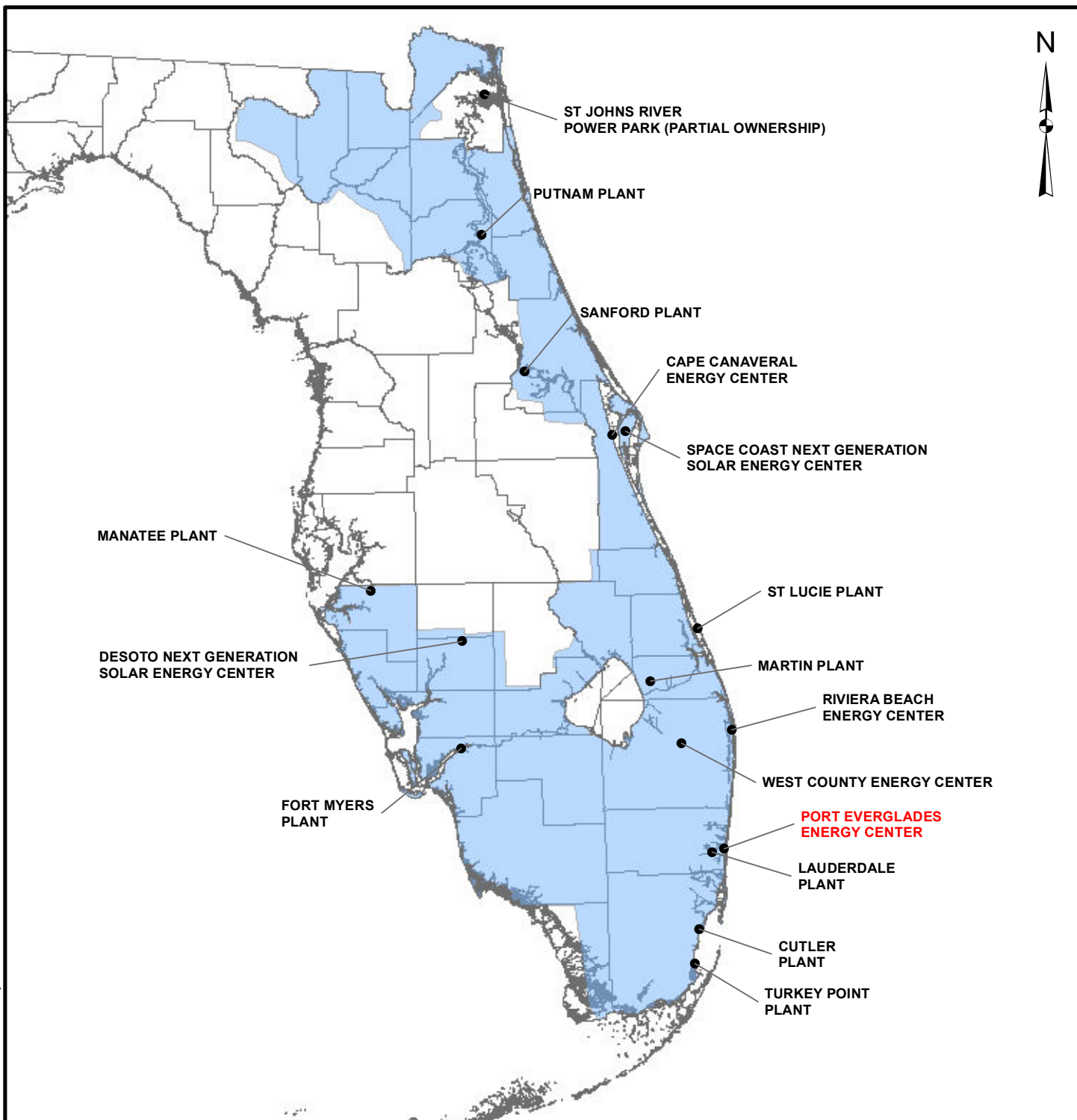
1. Port Everglades Plant and Port Everglades Energy Center Site Location, FPL 2011
2. Municipalities, Broward County Florida, 2011, Palm Beach County Florida, 2010, and Miami Dade County Florida, 2009
3. Roads, Florida Department of Transportation, 2011



REV.	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RVW
PROJECT						
FPL						
PORT EVERGLADES ENERGY CENTER						
TITLE						
GENERAL LOCATION OF THE FPL PORT EVERGLADES PLANT AND PORT EVERGLADES ENERGY CENTER						
PROJECT No. 113-87618			FILE No. 113-87618A028			
DESIGN	RCM	12/21/2011	SCALE: AS SHOWN	REV.	0	
GIS	NRL	1/13/2012				
CHECK	RCM	1/13/2012				
REVIEW	KFK	1/13/2012				



FIGURE 1.1.0-1



LEGEND

- FPL Power Plants
- Approximate FPL Service Territory



REFERENCES

1. FPL Power Plants, 2011, FPL
2. Approximate FPL Service Territory, FPL, 2007

REV.	DATE	DES	REVISION DESCRIPTION						GIS	CHK	RVW	
PROJECT												
FPL PORT EVERGLADES ENERGY CENTER												
TITLE												
SERVICE TERRITORY AND POWER PLANTS												
			PROJECT No.			113-87618		FILE No.			113-87618A005	
			DESIGN	NRL	11/3/2011		SCALE: AS SHOWN		REV.		0	
			GIS	NRL	11/3/2011		FIGURE 1.2.0-1					
			CHECK	RCM	1/12/2012							
			REVIEW	KFK	1/12/2012							

