APPENDIX A

REVIEW OF THE 2015 TEN-YEAR SITE PLANS OF FLORIDA'S ELECTRIC UTILITIES



NOVEMBER 2015

State Agencies

- Fish and Wildlife Conservation Commission- General
- Fish and Wildlife Conservation Commission- FPL
- Department of Environmental Protection

Regional Planning Councils

• Treasure Coast Regional Planning Council

Water Management Districts

• Southwest Florida Water Management District

Local Governments

- Brevard County
- Manatee County



Florida Fish and Wildlife Conservation Commission

Commissioners Brian Yablonski Chairman Tallahassee

Aliese P. "Liesa" Priddy Vice Chairman Immokalee

Ronald M. Bergeron Fort Lauderdale

Richard A. Corbett Tampa

Richard Hanas Oviedo

Bo Rivard Panama City

Charles W. Roberts III Tallahassee

Executive Staff

Nick Wiley Executive Director

Eric Sutton Assistant Executive Director

Jennifer Fitzwater Chief of Staff

Office of the Executive Director

Nick Wiley Executive Director

(850) 487-3796 (850) 921-5786 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street Tallahassee, Florida 32399-1600 Voice: (850) 488-4676

Hearing/speech-impaired: (800) 955-8771 (T) (800) 955-8770 (V)

MyFWC.com

July 14, 2015

Mr. Phillip Ellis Division of Engineering Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 pellis@psc.state.fl.us

RE: Ten-Year Power Plant Site Plans

Dear Mr. Ellis:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the 2015 Ten-Year Power Plant Site Plans submitted to the Public Service Commission (PSC). We will be providing comments on the Florida Power and Light (FPL) site plan in a subsequent letter. However, we are submitting this letter to notify you that we have reviewed the following plans and have no comments regarding fish and wildlife resources:

Gainesville Regional Utilities (GRU) Jacksonville Energy Authority (JEA) Florida Municipal Power Agency (FMPA) Gulf Power Company (GULF) City of Tallahassee Utilities (TAL) Seminole Electric Cooperative (SEC) Lakeland Electric (LAK) Tampa Electric Company (TECO) Orlando Utilities Commission (OUC) Duke Energy Florida (DEF)

We appreciate the opportunity to review the Ten-Year Site Plans, as provided by the PSC. If you need further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or by email at FWCConservationPlanningServices@MyFWC.com.

Sincerely,

Jernifu D. Soft

Jennifer D. Goff Land Use Planning Program Administrator Office of Conservation Planning Services

jdg/jh ENV 2-11-3 2015 Ten-Year Site Plans_071415

cc: Moniaishi Mtenga, Florida Public Service Commission, mmtenga@psc.state.fl.us



Florida Fish and Wildlife Conservation Commission

Commissioners

Brian Yablonski Chairman Tallahassee

Aliese P. "Liesa" Priddy Vice Chairman Immokalee

Ronald M. Bergeron Fort Lauderdale

Richard A. Corbett Tampa

Richard Hanas Oviedo

Bo Rivard Panama City

Charles W. Roberts III Tallahassee

Executive Staff Nick Wiley

Executive Director

Eric Sutton Assistant Executive Director

Jennifer Fitzwater Chief of Staff

Office of the Executive Director

Nick Wiley Executive Director

(850) 487-3796 (850) 921-5786 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street Tallahassee, Florida 32399-1600 Voice: (850) 488-4676

Hearing/speech-impaired: (800) 955-8771 (T) (800) 955-8770 (V)

MyFWC.com

July 20, 2015

Phillip Ellis Division of Engineering Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850 pellis@psc.state.fl.us

RE: Florida Power and Light Company, 2015-2024 Ten-Year Power Plant Site Plan, Multiple Counties

Dear Mr. Ellis:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the 2015-2024 Ten-Year Power Plant Site Plan (Plan) submitted by Florida Power and Light (FPL) and provides the following comments pursuant to Rule 25-22.071, Florida Administrative Code.

FPL's service area contains approximately 27,650 square miles within 35 counties throughout south and northeast Florida. FPL's electrical generating facilities consist of four nuclear facilities, three coal facilities, 15 combined cycle (CC) facilities, five fossil steam facilities, 48 combustion gas turbines (GT), two simple-cycle combustion turbines (CT), and two photovoltaic facilities. FPL's bulk transmission system includes 6,888 circuit miles of overhead and underground transmission lines. Integration of the generation, transmission, and distribution system is achieved through FPL's 569 substations.

Based upon its projection of future resource needs, FPL has identified eight Preferred Sites and three Potential Sites for future generation additions. The sites listed below include a combination of existing and new sites for the development of natural gas combined cycle, combusting turbines, and solar generation facilities.

Preferred Sites:

- 1. Port Everglades Plant, Broward County
- 2. Babcock Ranch Solar Energy Center, Charlotte County
- 3. Citrus Solar Energy Center, DeSoto County
- 4. Manatee Solar Energy Center, Manatee County
- 5. Lauderdale Plant Peaking Facilities, Broward County
- 6. Ft. Myers Plant Peaking Facilities, Lee County
- 7. Okeechobee Site, Okeechobee County
- 8. Turkey Point Plant, Miami-Dade County

Potential Sites:

1. Hendry County

- 2. Martin County
- 3. Putnam Plant Site (Putnam County)

FWC staff has previously provided comments on Preferred Sites 2, 3, and 4 during the permitting process. For the remaining sites, FWC staff reviewed our geographic information system data layers to determine the fish and wildlife resource issues that can be addressed prior to permitting or site certification activities. Based on our review, FWC staff offers the following comments for Preferred Site 7 and Potential Site 1.

Preferred Site Number 7: Okeechobee Site

FWC staff has met with FPL representatives and the U.S. Fish and Wildlife Service (USFWS) and has participated in initial site visits to discuss potential issues that may be encountered in certifying a new facility in Okeechobee County. The site is located within USFWS consultation areas for the Everglade snail kite (Rostrhamus sociabilis plumbeus, Federally Endangered [FE]), Audubon's crested caracara (Polyborus plancus audubonii, Federally Threatened [FT]), the Florida scrub jay (Aphelocoma coerulescens, FT), and the Florida grasshopper sparrow (Ammodramus savannarum floridanus, FE). The site is also within one wood stork (Mycteria americana, FT) nesting colony core foraging area (CFA) which constitutes an 18.6-mile radius around the nesting colony. Additionally, the site has potential for the following state- and federally listed species: Eastern indigo snake (Drymarchon corais couperi, FT), Sherman's fox squirrel (Sciurus niger shermani, State Species of Special Concern), and Florida sandhill crane (Grus canadensis pratensis, State Threatened). The Plan states that minimal impacts to federal- or state-listed animals are expected due to the previously disturbed nature of the site and lack of suitable onsite habitat for listed species. FWC staff will continue to work with FPL staff throughout any subsequent approval processes to ensure protection of listed species.

Potential Site Number 1: Hendry County

Our initial review indicates that the site is located within the USFWS consultation areas for Audubon's crested caracara (*Polyborus plancus audubonii*, FT), the Everglade snail kite (*Rostrhamus sociabilis plumbeus*, FE), the Florida bonneted bat (*Eumops floridanus*, FE), and the Florida panther (*Puma concolor coryi*, primary and secondary zone FE). The site is within one wood stork nesting colony CFA and the site has potential habitat for the Eastern indigo snake (*Drymarchon corais couperi*, FT).

The site is also located within the primary range for Big Cypress population of Florida black bear (*Ursus americanus floridanus*) (South Bear Management Unit). While the Florida black bear is no longer listed, FWC's Black Bear Management Plan (<u>http://myfwc.com/media/2612908/bear-management-plan.pdf</u>) provides measures to avoid negative human-bear interactions during construction and operation of the facility. The Plan states that FPL strives for no adverse impacts on federal- or state-listed animals, acknowledges that the area is considered habitat for the Florida panther, and FPL anticipates minimizing or mitigating for unavoidable wildlife or wetland impacts. FWC staff encourages FPL to work with FWC staff to identify potential fish and wildlife issues by conducting site-specific surveys to identify presence of listed species. FPL may also need to consult with the USFWS to determine the potential for impacts to federally listed species.

We appreciate the opportunity to provide input on this ten-year plan. If you need any further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or by email at <u>FWCConservationPlanningServices@MyFWC.com</u>. If you have specific technical questions regarding the content of this letter, please contact Marissa Krueger at (561) 882-5711 or by email at <u>Marissa.Krueger@MyFWC.com</u>.

Sincerely,

Jernifu D. Soft

Jennifer D. Goff Land Use Planning Program Administrator Office of Conservation Planning Services

jdg/mk ENV 2-11-2 FPL 2015 Ten-Year Site Plan_21027_072015

cc: Moniaishi Mtenga, Florida Public Service Commission, mmtenga@psc.state.fl.us

Good morning,

The Department of Environmental Protection's Siting Coordination Office has reviewed the 2015 Ten-Year Site Plans for Florida's Electric Utilities and found the documents to be adequate for planning purposes. Thank you for the opportunity to review and comment on the plans. If you have any questions for our office, feel free to contact me.

Bobby Bull, P.E. Florida Department of Environmental Protection Siting Coordination Office 2600 Blair Stone Road, MS 5500 Tallahassee, FL 32399-2400 robert.bull@dep.state.fl.us 850/717-9111





June 23, 2015

Mr. Phillip Ellis Division of Engineering Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Subject: 2015 Ten Year Power Plant Site Plans

Dear Mr. Ellis:

Treasure Coast Regional Planning Council has reviewed the ten year power plant site plan prepared by Florida Power and Light Company. Council approved the comments in the attached report at a board meeting on June 19, 2015. The report concludes that the region and all of south Florida continue to remain vulnerable to fuel price increases and supply interruptions, because of the continued heavy reliance on only two primary fuel types, natural gas and nuclear fuel. Council urges FPL and the State of Florida to continue developing new programs to: 1) reduce the reliance on fossil fuels as future energy sources; 2) increase conservation activities to offset the need to construct new power plants; and 3) increase the reliance on renewable energy sources to produce electricity.

Please contact me if you have any questions.

Sincerely,

Peter G. Merritt, Ph.D. Assistant Director

Attachment

cc: Amy Brunjes, FPL

"Bringing Communities Together" • Est. 1976

421 SW Camden Avenue - Stuart, Florida 34994 Phone (772) 221-4060 - Fax (772) 221-4067 - <u>www.tcrpc.org</u>

TREASURE COAST REGIONAL PLANNING COUNCIL

Report on the

Florida Power & Light Company Ten Year Power Plant Site Plan 2015-2024

June 19, 2015

Introduction

Each year every electric utility in the State of Florida produces a ten year site plan that includes an estimate of future electric power generating needs, a projection of how those needs will be met, and disclosure of information pertaining to the utility's preferred and potential power plant sites. The Florida Public Service Commission (FPSC) has requested that Council review the most recent ten year site plan prepared by Florida Power & Light Company (FPL). The purpose of this report is to summarize FPL's plans for future power generation and provide comments for transmittal to the FPSC.

Summary of the Plan

The plan indicates that total summer peak demand is expected to grow by 15.0 percent from 23,286 megawatts (MW) in 2015 to 26,771 MW in 2024. During the same period, FPL is expecting to reduce electrical use through demand side management programs, which include a number of conservation, energy efficiency, and load management initiatives. FPL's demand side management programs are expected to grow by 22.5 percent from 1,951 MW in 2015 to 2,389 MW in 2024. After FPL's demand side management efforts are factored in, FPL will still require additional capacity from conventional power plants to meet future electrical demand (Exhibit 1). FPL is proposing to add a total of about 2,767 MW of summer capacity to its system from 2015 to 2024. FPL plans to obtain additional electricity through: 1) power purchases from qualifying facilities, utilities, and other entities; 2) upgrades to existing facilities; 3) modernization of existing FPL facilities; and 4) construction of new generating units. Major additions of new generating capacity are as follows:

- 2016 place in service the Port Everglades Next Generation Clean Energy Center (1,237 MW) in the City of Hollywood;
- 2017 place in service five new combustion turbines to replace gas turbines at the Lauderdale site (1,155 MW) in Broward County;
- 2019 place in service the Okeechobee Next Generation Clean Energy Center (1,622 MW) in Okeechobee County; and
- 2023 place in service a new combined cycle power plant (1,317 MW) (not sited).

Based on the projection of future resource needs, FPL has identified the following eight preferred sites for future power generating facilities:

- 1. Port Everglades Plant, Broward County
- 2. Babcock Ranch Solar Energy Center, Charlotte County

- 3. Citrus Solar Energy Center, DeSoto County
- 4. Manatee Solar Energy Center, Manatee County
- 5. Lauderdale Plant Peaking Facilities, Broward County
- 6. Fort Myers Plant Peaking Facilities, Lee County
- 7. Okeechobee Site, Okeechobee County
- 8. Turkey Point Plant, Miami-Dade County

Also, FPL has identified 3 potential sites for new or expanded power generating facilities. The identification of potential sites does not represent a commitment by FPL to construct new power generating facilities at these sites. The potential sites include:

- 1. Hendry County
- 2. Martin County
- 3. Putnam Plant Site, Putnam County

The ten year site plan describes six factors that have impacted or could impact FPL's resource plan. These factors include:

- 1. Maintaining/enhancing fuel diversity in the FPL system.
- 2. Maintaining a balance between load and generating capacity in southeastern Florida, particularly in Miami-Dade and Broward counties.
- 3. Maintaining an appropriate balance of demand side management and supply resources to achieve system reliability.
- 4. The impact of federal and state energy efficiency codes and standards on FPL's projected demand and energy load forecasts.
- 5. The increasing cost competitiveness of utility-scale photovoltaic (PV) facilities due to the continued decline of the cost of PV modules.
- 6. New environmental regulations, particularly from the U.S. Environmental Protection Agency's proposed Clean Power Plan issued in June 2014.

Evaluation

One of the main purposes of preparing the ten year site plan is to disclose the general location of proposed power plant sites. The FPL ten year site plan identifies no preferred sites and one potential site for future power generating facilities in the Treasure Coast Region (Exhibit 2). The only potential site identified in the Treasure Coast Region is Martin County. The plan indicates FPL is currently evaluating potential sites in Martin County for a future PV facility. No specific locations have been selected at this time.

One preferred site, the Okeechobee site is located in northeastern Okeechobee County directly adjacent to Indian River County. The ten year site plan indicates that FPL owns 2,800 acres at this site. FPL plans to use approximately 200 acres of this land for development of a natural gas-fired combined cycle unit at this site. Natural gas is expected to be supplied by an existing pipeline as well as a future pipeline. The Florida Southeast Connection pipeline project is currently in the process of obtaining approval from the Federal Energy Regulatory Commission. The ten year site plan also indicates that the Okeechobee site is one of the most likely sites to be

used for future large-scale solar using PV generation facilities. FPL representatives have indicated that they are coordinating with Indian River County staff regarding possible impacts to the county.

A change in the 2015 ten year site plan is that FPL no longer has plans to acquire the City of Vero Beach's electric system. In early 2013, FPL came to an agreement with the City of Vero Beach to purchase the city's electric utility system. However, lack of progress among negotiating parties has resulted in uncertainty regarding whether FPL will provide electric load to the city. As a result, the 2015 ten year site plan does not include electric service to Vero Beach in its load forecast.

The ten year site plan indicates that fossil fuels will be the primary source of energy used to generate electricity by FPL during the next 10 years (Exhibit 3). The plan indicates fossil fuels will account for 70.3 percent (3.5 percent from coal, 0.1 percent from oil, and 66.7 percent from natural gas) of FPL's electric generation in 2015. The plan predicts fossil fuels will account for 74.9 percent (2.3 percent from coal, 0.1 percent from oil, and 72.5 percent from natural gas) of FPL's electric generation in 2024. During the same period, nuclear sources are predicted to change from 23.2 percent in 2015 to 21.5 percent in 2024. Solar sources are predicted to increase from 0.2 percent in 2015 to 0.5 percent in 2024.

Renewable Energy

This is the first FPL 10 year site plan to indicate that the generation of solar energy is now competitive on FPL's system at specific sites. FPL has concluded from its research programs that utility-scale PV applications are the most economical way to utilize solar energy. Their analysis suggests that utility-scale PV is at least twice as economical on an installed \$/kw basis compared to distributed PV systems. Utility-scale PV facilities have become cost competitive due to the continued decline of the cost of PV modules. However, utility-scale PV is only cost effective at specific sites that have advantages at this time. In future years, other sites may become cost-effective and added to the plan, especially if PV costs continue to decline. FPL plans to pursue solar energy in three ways, including 1) utility-scale PV facilities; 2) a community-based solar partnership pilot program; and 3) a commercial and industrial partnership pilot program. These programs are described below.

Utility-scale PV Facilities. FPL is planning to add three new PV facilities by the end of 2016. These are the Babcock Ranch Solar Energy Center in Charlotte County, Citrus Solar Energy Center in DeSoto County, and Manatee Solar Energy Center in Manatee County. Each of the PV facilities will be approximately 74.5 MW. These new facilities will be in addition to the existing Martin Next Generation Solar Energy Center (75 MW) in Martin County, the DeSoto Next Generation Solar Energy Center (25 MW) in DeSoto County, and the Space Coast Next Generation Solar Energy Center (10 MW) in Brevard County. The new facilities will increase FPL's solar generation capacity from its current 110 MW to approximately 333 MW. The economics of these projects are aided by the fact that the sites are located close to existing electric infrastructure, including transmission lines and electric substations, and by the fact that bringing these solar facilities into service prior to the end of 2016 will allow the facilities to take advantage of investment tax credits that are scheduled to be reduced in 2017.

Community-based Solar Partnership Pilot Program. FPL is introducing a voluntary solar pilot program to provide customers with an additional and flexible opportunity to support development of solar power in Florida. This pilot program will provide all customers the opportunity to support the use of solar energy at a community scale and is designed for customers who do not wish, or are not able, to place solar equipment on their roof. Customers can participate in the program through voluntary contributions of \$9/month starting in mid-2015. The voluntary contribution is required because the cost per MW to construct this type of distributed generation scale facility is approximately double the cost of utility scale facilities. Also, the operation and maintenance costs of these facilities are expected to be three times as much as for utility-scale PV systems.

The first 200 kW PV projects under this pilot program will be built by FPL in the first half of 2015 at locations in the City of West Palm Beach and in Broward County. Additional PV facilities under this program will be built when the projected voluntary contributions are sufficient to cover on-going program costs without increasing electric rates for all customers. The locations of additional PV facilities have not yet been determined. FPL estimates that the project could result in approximately 2 MW of community-located PV installations supported by over 10,000 customer participants by the end of the three-year pilot program.

Commercial and Industrial Partnership Pilot Program. This pilot program will be conducted in partnership with interested commercial and industrial customers over about a five year period. Limited investments will be made in PV facilities located at customer sites in selected geographic areas of FPL's service territory. The objective of this portion of the pilot program is to examine the effect of high penetration of distributed generation PV on FPL's distribution system and to determine how best to address any problems that may be identified. FPL will site approximately 5 MW of PV facilities in areas where distributed generation PV already exists to better study feeder loading impacts. PV installations at Daytona International Speedway and Florida International University's (FIU) Engineering Center campus in West Miami-Dade County have been selected based on their interconnection with targeted circuits. In addition, this pilot program will also install a battery storage facility of approximately 1 MW capacity. A multi-year research partnership agreement has been executed with FIU to assist FPL in research and development of battery storage.

Conclusion

The region and all of south Florida continue to remain vulnerable to fuel price increases and supply interruptions, because of the continued heavy reliance on only two primary fuel types, natural gas and nuclear fuel. The 2015 ten year site plan does project an increase in the generation of renewable energy, with the addition of three new solar PV facilities by the end of 2016. However, Council remains concerned that the ten year site plan does not project a significant increase in the use of renewable energy during the next decade. During the 10-year planning horizon, the use of natural gas is projected to rise from 66.7 percent to 72.5 percent, while solar is projected to rise from 0.2 percent to 0.5 percent. Council recommends that FPL adopt a more balanced portfolio of fuels that includes a significant component of renewable energy sources. Council continues to encourage the Florida Legislature to adopt a Renewable

Portfolio Standard in order to provide a mechanism to expand the use of renewable energy in Florida.

Council supports FPL's existing and proposed solar projects and encourages FPL to develop additional projects based on renewable resources. FPL should consider developing other programs to install, own, and operate PV units on the rooftops of private and public buildings. The shift to rooftop PV systems distributed throughout the area of demand could reduce reliance on large transmission lines and reduce costs associated with owning property; purchasing fuel; and permitting, constructing, and maintaining a power plant. Another advantage of this strategy is that PV systems do not require water for cooling. The incentive for owners of buildings to participate in this strategy is they could be offered a reduced rate for purchasing electricity. Also, FPL should consider expanding solar rebate programs for customers who install PV and solar water heating systems on their homes and businesses. These rebates should be coordinated with other programs, such as the Solar and Energy Loan Fund (SELF) and Property-Assessed Clean Energy (PACE) programs, to provide participants in these programs the option of receiving a rebate. SELF is a low interest rate loan program that provides financing for clean energy solutions. PACE programs allow property owners to finance energy retrofits by placing an additional tax assessment on the property in which the investment is made.

Council urges FPL and the State of Florida to continue developing new programs to: 1) reduce the reliance on fossil fuels as future energy sources; 2) increase conservation activities to offset the need to construct new power plants; and 3) increase the reliance on renewable energy sources to produce electricity. The complete costs of burning fossil fuels, such as the costs to prevent environmental pollution and costs to the health of the citizens, need to be considered in evaluating these systems. State legislators should amend the regulatory framework to provide financial incentives for the power providers and the customers to increase conservation measures and to rely to a greater extent on renewable energy sources. Also, the state should reconsider the currently used test for energy efficiency and choose a test that will maximize the potential for energy efficiency and renewable energy sources. The phasing in of PV and other locally available energy sources will help Florida achieve a sustainable future.

Attachments

EXHIBIT 1

Year *	Projected Capacity & Firm Purchase Power Chapges	Summer MW	Date	Summer Resorve Margin **
2015	Turkey Point	(22)	January-15	
100440	Fort Myers	(5)	January-15	100
	Lauderdale GT	785	January-15	
	Lauderdale GT	(8)	January-15	
	Port Everolades GT	(8)	January-15	
	Pain Beach SWA - ark@irmal.firm.conacity	70	lune 15	
	Martin	(3)	June-15	
	Scheer	(0)	June-15	
0.943	Total of MV changes to Summer firm canadity:	NUTRY BURNEY	ALC CARA	26.7%
2016	Certer Bay - DDå refrement	(250)	October-15	and the second second
2010	Cedar Bay -FPA foreingin	250	October-15	
	LIDE Deployment	(028)	December-15	
	East Muses 2	37	Luon 16	
	Fort Myors 2	(EAD)	June-10	
	Loudentels OTs 1 -10	(440)	June 16	
	Lauderdale Gis 1- 12	(412)	June 10	() · · · · ·
	Marun	4 4 4 7	June-16	
	Port Everglades Next Generation Gloan Energy Center	1,237	June-16	
(included)	Samord	3	June-16	04.00
0100000	Total of MW changes to Summer tim capacity:	(601)	and with the first	21,079
2017	Babcock Solar Energy Center (Charlotte)	30	September-16	
	Citrus Solar Energy Center (DeSolo) ***	38	September-16	
	Manatee Solar Energy Center ***	38	September-16	S
	Lauderdale GTs 13- 22	(343)	October-16	
	Turkey Point Unit 1 synchronous condenser	(398)	October-16	
	Port Everglades GTs	(412)	December-16	
	Cedar Bay	(250)	December-16	
	Lauderdale GTa - 5 CT	1,155	December-16	
	Fort Myers GTs - 2 CT	462	December-16	
	Fort Myers 3A&B - upgraded	50	December-16	
	Martin	2	January-17	
	Sanford	1 1	January-17	
	Sanford	4	January-17	
	Turkey Point#5	23	June-17	
	Manatep	4	June-17	1
一门方花	Total of MV changes to Summer firm capacity:	415	L State Constant	20.9%
2018	Unspecified Short-Term Purchase	207	May-18	1000000000
	Turkey Point Nuclear Unit #3	20	June-18	
	Turkey Point Nuclear Unit #5	3	June-18	
N2366	Total of MV changes to Summer firm capacity:	227	CONTRACTOR OF STREET	20.0%
2019	Unspecified Short-Term Purchase	(207)	September-18	ALC: NO.
	SIRPP suspension of energy	(382)	2 ⁴⁴ Ouestor	
	Turkey Date Makes Helt Md	20	.z. upants	
	Punkey Point Nuclear Onit #4	4 600	June-18	
and comes	Okeachobee Next Ganeration Clean Energy Center	1,022	June-18	USANTA (2)()
STREET.	scrinkers in the local of MW changes to Summer Infit capacity.	1,063	CHO CAMPAGES	24.070
2020		Course of Course	PROFILE CARDING PROFILE	04 041
and d	Total of MW changes to Summer firm capacity:	A STORE DESCRIPTION	D.K. WARRING ST	21.5%
2021	Eco-Gen PPA firm capacity	180	January-21	
a com	Cape Next Generation Clean Energy Center	88	June-21	
(internal	Total of MW changes to Summer firm capacity:	268	Production of the party	22,0%
	Riviera Beach Next Generation Clean Energy Center	86	June-22	
2022	The second s	the second se	1 1 4 D C C C C C C C C C C C C C C C C C C	20.0%
2022	Total of MW changes to Summer firm capacity:	66	2014年1月1日1日1日1日	20.370
2022 2023	Total of MW changes to Summer firm capacity: Unalled CC	1,317	June-23	20.376
2022	Total of MW changes to Summer firm capacity: Unallod CC Total of MW changes to Summer firm capacity:	80 1,317 1,317	June-23	24.4%

Table ES-1: Projected Capacity & Firm Purchase Power Changes

* Year shown reflects when the MW change boghts to be accounted for in Summer reserve mergin

calculations.

** Winter Reserve Margins are typically high than Summer Reserve Margin. Winter Reserve Margin are shown on Schedulo 7.2 in Chapter II.

*** MIV values shown represent the firm capacity assumption for each 74.5 MIV namepiate (AC) PV facility.

**** The Okeechobee generating is FPL's best self-build option for 2019. During 2015 it will be evaluated various



EXHIBIT 3

Schedule 5.2 Energy Sources % by Fuel Type

			Actual	Forecasted										
	Energy Source	Unita	2013	2014	2016	2015	2017	2018	2019	2020	2021	2022	2023	2024
(1)	Annual Energy Interchange ³⁴	%	4.0	4.2	3.0	1.0	0.9	1.0	0.2	0,0	0.0	0.0	0.0	0.0
(2)	Nuclear	%	22.6	23.1	23,2	23.3	22.0	22.7	22,9	22.3	221	22.3	21.8	21,5
(3)	Coal	96	5.4	3.9	3.5	3.1	2.7	2.6	29	2.4	2.6	2.6	2.5	2.3
(4) (6)	Residual (FO6) -Total Steam	96 96	0.1 0.1	02 02	0.1 0.1	0.1 0.1	0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
(6) (7) (6) (9)	Disfilate (FO2) -Total Steam CC CT	96 96 96	0.1 0.0 0.1 0,0	0.1 0.0 0.1 0.0	0.0 0.0 0.0 0.0	0,1 0,0 0,0 0,1	0.0 0.0 0.0 0.0	0.0 0.0 0.0	0.1 0.0 0.1 0.0	0.0 0,0 0,0 0,0	0.0 0.0 0.0 0.0	0.1 0.0 0.1 0.0	0.1 0.0 0.1 0.0	0.1 0.0 0.1 0.0
(10) (11) (12) (13)	Natural Gas -Total Steam CC CT	% % %	67.4 2.2 64.5 0.4	68.2 1.6 66.3 0.3	66.7 1.1 65.7 0.0	69.2 1.0 68.1 0.1	64.0 0,4 63.3 0.4	64.1 0.5 63.1 0.5	69.5 0.8 67.5 1.1	71.7 0.8 70.3 0.6	71.7 0.6 70.6 0.5	71.3 0.7 70.0 0.6	71.9 0.6 70.6 0.7	72.5 0.4 71.7 0.4
(14) (15) (16)	Solar ²⁴ PV Solar Thermal	% % %	0.1 0.1 0.1	0.2 0.1 0.1	0.2 0.1 0.1	0.3 0.2 0.1	0.6 0.5 0.1	0.6 0.5 0.1	0.5 0.5 0.1	0.5 0.4 0.1	0.5 0.4 0.1	0.5 0.4 0.1	0.5 0.4 0.1	0,5 0,4 0,1
(17)	Other *	× _	0.4	0,1	3.2 100	2.8	8.0 100	9,0 100	3.9 100	<u>3.0</u> 100	3,0 100	3.1 100	<u>3.1</u> 100	<u>3.1</u> 100

Sourcis: A Schedules and Actual Data for Next Generation Solar Centers Report.
 The projected figures are based on estimated energy purchases from SJRPP, the Southern Companies (UPS contract), and other utilities.
 Represents extput from FPL's PV and solar thermal facilities.
 Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, not of Economy and other Power Sales.



Water Management District **Bartow Service Office**

Southwest Florida

170 Century Boulevard Bartow, Florida 33830-7700 (863) 534-1448 or 1-800-492-7862 (FL only)

July 9, 2015

6750 Fruitville Road Sarasota, Florida 34240-9711 (941) 377-3722 or 1-800-320-3503 (FL only)

Sarasota Service Office

2379 Broad Street, Brooksville, Florida 34604-6899 (352) 796-7211 or 1-800-423-1476 (FL only) WaterMatters.org

> Tampa Service Office 7601 U.S. 301 North (Fort King Highway) Tampa, Florida 33637-6759 (813) 985-7481 or 1-800-836-0797 (FL only)

Michael A. Babb Chair, Hillsborough Randall S. Maggard

Vice Chair, Pasco Jeffrev M. Adams

Secretary, Pinellas David W. Dunbar Treasurer, Hillsborough, Pinellas **Carlos Beruff**

> Former Chair, Manatee H. Paul Senft, Jr. Former Chair, Polk

Ed Armstrong Pinellas

Bryan K. Beswick DeSoto, Hardee, Highlands Thomas E. Bronson

> Hernando, Marion Wendy Griffin

Hillsborough George W. Mann

Polk Michael A. Moran Charlotte, Sarasota Vacant Citrus, Lake, Levy, Sumter

Robert R. Beltran, P.E. **Executive Director** Mr. Moniaishi Mtenga, Engineering Specialist **Division of Engineering** Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, FL 32399-0850

Subject: Electric Utility 2015 Ten-Year Site Plans

Dear Mr. Mtenga:

In response to your request, the Southwest Florida Water Management District (District) has completed its review of the 2015 Ten-Year Site Plans (Site Plans) for Duke Energy Florida (DEF), Tampa Electric Company (TECO), Florida Power and Light (FPL), and Seminole Electric Company (SEC). The District's review is being conducted pursuant to Section 186.801(2)(e), Florida Statutes, which requires that the Public Service Commission consider "the views of the appropriate water management district as to the availability of water and its recommendation as to the use by the proposed plant of salt water or fresh water for cooling purposes."

Forecast of Facilities Requirements

The following information was provided by the utilities in their respective Site Plans:

- DEF indicates that new combined cycle units are proposed in 2018 adjacent • to the Crystal River Site. The Certification Order for these units was recently issued by the DEP Secretary. DEF also indicates that four combustion turbine units are proposed at undesignated sites in 2024.
- TECO indicates that conversion of the Polk Power Station's simple cycle • combustion turbines (Units 2-5) to a waste heat recovery natural gas combined cycle unit is underway and is scheduled for completion in 2017. In addition, a new combustion turbine is proposed in 2021 at an undesignated site.
- FPL indicates that only solar photovoltaic facilities are proposed within the District's jurisdictional boundaries over the ten-year planning horizon. A small quantity of water is necessary for occasional cleaning of solar panels. Potable water would be used for this purpose or water obtained from a tank trucked to the site.

Mr. Moniaishi Mtenga, Engineering Specialist July 9, 2015 Page 2

• SEC indicates that a new combined cycle plant is proposed in 2021 at an undesignated site. In addition, three new combustion turbine units are proposed in 2022, 2023, and 2024 at undesignated sites. According to SEC, the final decision as to whether to construct and own these additional facilities will be based upon future economic studies.

District Comments

The District offers the following general technical assistance comments:

- The most water conserving practices must be used in all processes and components of the power plant's water use that are environmentally, technically and economically feasible for the activity, including reducing water losses, recycling, and reuse. If a lower quality water is available and is environmentally, technically and economically feasible for all or a portion of the proposed use, this lower quality water must be used.
- For new generating facilities proposed in the southern and much of the central portions of the District, there are additional water use constraints. These areas have been designated as Water Use Caution Areas. This designation has occurred in response to water resource impacts, such as salt water intrusion, lowered water levels in lakes and wetlands, and reduced stream flows, which have been caused by excessive ground water withdrawals. Regional recovery strategies are being implemented to address these adverse water resource impacts. Consequently, the District has heightened concerns regarding potential impacts due to additional water withdrawals.

Early coordination with the District's Water Use Permit (WUP) staff is encouraged prior to submittal of any Site Certification or WUP applications. For assistance or additional information concerning the District's WUP program, please contact Claire Muirhead, WUP Evaluation Manager in the District's Tampa Service Office, at (813) 985-7481, extension 6533, or <u>claire.muirhead@watermatters.org</u>.

We appreciate this opportunity to participate in the review process. If you have any questions or require further assistance, please do not hesitate to contact me at (352) 796-7211, extension 4790, or james.golden@watermatters.org.

Sincerely,

pour fr. hella

James J. Golden, AICP Senior Planner

JG

C: Claire Muirhead, SWFWMD

Mr. Mtenga,

Brevard County has reviewed the relevant Ten-Year Site Plan identified below and has no comment on the plan. Thank you for the opportunity for Brevard County to review the 2015 Ten-Year Site Plans.

Rebecca Ragaín, AICP

Planning and Development Department 2725 Judge Fran Jamieson Way, Building A Viera, FL 32940 321-633-2065 Ext. 52632

From: Moni Mtenga [mailto:MMtenga@PSC.STATE.FL.US]
Sent: Monday, July 06, 2015 10:59 AM
To: Sobrino, Robin M
Subject: Review of Ten Year Site Plans for Florida's Electric Utilities

Dear Robin Sobrino

Pursuant to Section 186.801, Florida Statutes, the Florida Public Service Commission (Commission) is responsible for reviewing and classifying each electric utility's Ten-Year Site Plan as "suitable" or "unsuitable." As part of the annual review in accordance with Rule 25-22.071, Florida Administrative Code, the Commission must provide a copy of the relevant Ten-Year Site Plans and solicit the views of the appropriate state, regional, and local agencies. To this end, the Commission has made available on its website electronic copies of the 2015 Ten-Year Site Plans for all the Florida electric utilities at the following link:

http://www.psc.state.fl.us/utilities/electricgas/10yrsiteplans.aspx

Below is a list of those electric utilities that have identified preferred or potential plant sites in your jurisdiction. Please review these Ten-Year Site Plans and provide comments, along with a brief summary if possible, on their suitability as planning documents. Please note that these plans are not designed to give information about proposed facilities in such detail as would be required for a development permit or other formal process.

Relevant Ten-Year Site Plans

Orlando Utilities Commission

Please forward all comments by September 30, 2015, including an electronic copy to my email address below. If you have any questions, require additional time to file comments, or would like to receive a hardcopy of the Ten-Year Site Plans, please feel free to contact me by phone at (850) 413-6586 or by email (<u>mmtenga@psc.state.fl.us</u>) or Phillip Ellis by phone at (850) 413-6626 or

by email (pellis@psc.state.fl.us). Thank you for your assistance.

Moniaishi Mtenga

Engineering Specialist Division of Engineering Florida Public Service Commission <u>mmtenga@psc.state.fl.us</u> 850-413-6586 (W)

"Under Florida Law, email addresses are Public Records. If you do not want your email address released in response to public record requests, do not send electronic mail to this entity. Instead, contact this office by phone or in writing."



Building & Development Services Administration P. O. Box 1000 Bradenton, Florida 34206 Phone: (941) 748-4501 www.mymanatee.org

August 4, 2015

Moniaishi Mtenga Engineering Specialist Division of Engineering Florida Public Service Commission <u>mmtenga@psc.state.fl.us</u>

RE: Ten Year Site Plans for Florida's Electric Utilities – FPL

Dear Moniashi Mtenga:

Manatee County is identified in the FPL plan for a new photovoltaic (PV) facility on the existing FPL Parrish Power Plant property by the end of 2016. The site plan for this project has been going through our public hearing process, with a positive staff recommendation.

The Planning Commission approved the site plan this month and the next public hearing is with our Board of County Commissioners scheduled for August 6, 2015. This is an exciting project for Manatee County.

The ten-year plan does not identify any other areas of Manatee County for expansion. However, it's important for our future infrastructure planning that FPL works with Manatee County as early as possible in terms of any upgrades to poles and transmission lines.

Specifically, upgrading existing poles to the larger and concrete type affect our ability to provide future infrastructure services in developing areas. In some instances, the installation of these poles has conflicted with our future infrastructure planning efforts with our utility master planning and road improvement planning.

We would like to work closer with FPL and share our own plans early on. I believe we share a common goal of expanding our respective infrastructure and services more efficiently to serve future customers.

We look forward to working with FPL in the future and will be in touch to schedule a meeting with staff involved in infrastructure planning for a status update. Thank you.

Sincerelv John Osborne, AICP Planning Official

Page 2 August 4, 2015

cc: Ed Hunzeker, County Administrator Dan Schlandt, Deputy County Administrator Karen Windon, Deputy County Administrator John R. Barnott, Director, Building & Development Services Ron Schulhofer, Director, Public Works Department Mike Gore, Director, Utilities Charlie Hunsicker, Director, Parks & Natural Resources Charlie Bishop, Director, Property Management Sia Mollanazar, Deputy Director Engineering Services Sage Kamiya, Deputy Director, Traffic Management Jeff Streitmatter, Project Management Division Manager Chris Mowbray, Highway Engineering Division Manager Clarke Davis, Transportation Planning Manager