Report
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April 1, 2019

-VIA ELECTRONIC FILING-

Adam Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

RE: Florida Power & Light Company's 2019 Ten Year Power Plant Site Plan

Dear Mr. Teitzman:

Please find enclosed for electronic filing Florida Power & Light Company's 2019-2028 Ten Year Power Plant Site Plan. Per Commission Staff's request, ten (10) hard copies also will be provided to your office.

If there are any questions regarding this transmittal, please contact me at (561)304-5662.

Sincerely,

/*s/ William P. Cox*
William P. Cox
Senior Attorney
Fla. Bar No. 00093531

Enclosure

Ten Year Power Plant Site Plan
2019 – 2028

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FPL

Ten Year Power Plant Site Plan

2019-2028

Submitted To:

Florida Public Service Commission

April 2019

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Table of Contents

List of Figures, Tables, and Maps

List of Schedules

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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 (Site Plan). This Site Plan should include an estimate of the utility's future electric power generating needs, a projection of how these estimated generating needs could be met, and disclosure of information pertaining to the utility's Preferred and Potential power plant sites. The information contained in this Site Plan is compiled and presented in accordance with Rules 25-22.070, 25-22.071, and 25-22.072, Florida Administrative Code (F.A.C.).

Site Plans are long-term planning documents and should be viewed in this context. A Site Plan contains uncertain forecasts and tentative planning information. Forecasts evolve, and all planning information 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, at the appropriate time.

This Site Plan document is based on Florida Power & Light Company's (FPL's) integrated resource planning (IRP) analyses that were carried out in 2018 and that were on-going in the first Quarter of 2019. The forecasted information presented in this plan addresses the years 2019 through 2028.

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 (DSM), and FPL's transmission system.

Chapter II – Forecast of Electric Power Demand

FPL's load forecasting methodology, and the resulting forecast of seasonal peaks and annual energy usage, is presented in Chapter II. Included in this discussion is the projected significant impact of federal and state energy-efficiency codes and standards.

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, based on FPL's IRP work in 2018 and early 2019. This chapter also discusses a number of factors or issues that either have changed, or may change, the resource plan presented in this Site Plan. Furthermore, this chapter discusses FPL's previous and planned DSM efforts, the projected significant impact of the combined effects of FPL's DSM plans and state/federal energy-efficiency codes and standards, FPL's previous and planned renewable energy efforts, projected transmission planning additions, and FPL's fuel cost forecasting processes.

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 (12) "discussion items" which pertain to additional information that is included in a Site Plan filing.

FPL
List of Abbreviations
Used in FPL Forms

Reference	*Abbreviation*	*Definition*
Unit Type	BS	Battery Storage
	CC	Combined Cycle
	CT	Combustion Turbine
	GT	Gas Turbine
	PV	Photovoltaic
	ST	Steam Unit (Fossil or Nuclear)
Fuel Type	BIT	Bituminous Coal
	FO2	#1, #2 or Kerosene Oil (Distillate)
	FO6	#4,#5,#6 Oil (Heavy)
	NG	Natural Gas
	No	None
	NUC	Uranium
	Pet	Petroleum Coke
	Solar	Solar Energy
	SUB	Sub Bituminous Coal
	ULSD	Ultra - Low Sulfur Distillate
Fuel Transportation	No	None
	PL	Pipeline
	RR	Railroad
	TK	Truck
	WA	Water
Unit/Site Status	L	Regulatory approval pending. Not under construction
	OP	Operating Unit
	OT	Other
	P	Planned Unit
	RT	Retired
	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
Other	ESP	Electrostatic Precipitators
	K Factor	The K factor for the capital costs of a given unit is the cumulative present value of revenue requirements (CPVRR) divided by the total installed cost

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Executive Summary

Florida Power & Light Company's (FPL's) 2019 Ten Year Power Plant Site Plan (Site Plan) presents the company's current plans to augment and enhance its electric generation capability as part of its efforts to meet FPL's projected incremental resource needs for the 2019 through 2028 time period in a reliable, clean, and cost-effective manner. FPL already has one of the cleanest emission profiles of any electric utility in the U.S., and with the resource additions presented in this Site Plan (which include the solar additions in FPL's recently announced plan to add more than 30 million solar panels by 2030), FPL's generation fleet is projected to become even cleaner. In 2018, FPL delivered more than 97% of its energy from a combination of low-emission natural gas, zero-emission nuclear, and zero-emission solar. During the 10-year reporting period of this Site Plan, this clean energy percentage is projected to remain essentially steady, but the contribution from zero-emission solar is projected to increase and the contribution from low-emission natural gas is projected to decrease. These projections are presented in Chapter III.

By design, the primary focus of this document is on projected supply-side additions; *i.e.*, electric generation capability and the sites for these additions. The supply-side additions discussed in this Site Plan are resources projected to be needed after accounting for FPL's extensive demand side management (DSM) resource capabilities and/or resource additions that result in significant economic savings for FPL's customers. In late 2019, the Florida Public Service Commission (FPSC) is scheduled to set new DSM Goals for the time period 2020 through 2029 for FPL and other Florida utilities. Approximately two weeks after FPL files this 2019 Site Plan, FPL is scheduled to file with the FPSC its proposed DSM Goals for this time period. Consequently, the level of DSM reflected in this 2019 Site Plan is consistent with the DSM Goals that FPL will be proposing in its 2019 DSM Goals filing. DSM is discussed in more detail in Chapters I, II, and III.

In addition, FPL's load forecast accounts for a very large amount of energy efficiency that results from federal and state energy-efficiency codes and standards. The projected substantial impacts of these codes and standards are discussed later in this summary and in Chapters II and III.

There are a number of similarities between the resource plan presented in this 2019 Site Plan and the previous resource plan presented in FPL's 2018 Site Plan. These similarities are discussed below in Section I. In addition, there are a number of factors that either have influenced, or may influence, FPL's ongoing resource planning efforts. These factors could result in significantly different resources being added in the future. These factors are discussed below in Section II. Additional information regarding these topics is presented in Chapters II and III.

I. Similarities Between FPL's 2019 and 2018 Site Plans:

As mentioned above, the resource plan that is presented in this 2019 Site Plan is similar in a number of respects to the resource plan that was presented in FPL's 2018 Site Plan. These similarities are discussed below.

Similarity # 1: FPL continues to utilize solar cost-effectively (and now projects to double the amount of solar additions compared to amount of solar shown in the 2018 Site Plan)

FPL's 2018 Site Plan featured the planned cost-effective addition of four new universal solar photovoltaic (PV) facilities of approximately 74.5 MW[1] each by early 2019. These additions were contemplated under the Solar Base Rate Adjustment (SoBRA) mechanism approved as part of the settlement agreement in FPL's 2016 base rate proceeding in Docket No. 160021-EI. The four solar additions were approved by the FPSC on December 26, 2018 (Order No. PSC-2018-0610-FOF-EI). These four new solar facilities have now been completed and went into commercial operation on January 31, 2019. As a result, FPL's total solar generation totals approximately 1,228 MW (nameplate, AC). Of this total, approximately 1,153 MW is from PV facilities and 75 MW are from a solar thermal facility.

On March 1, 2019, FPL filed for FPSC approval of four additional PV facilities under the SoBRA agreement. Each of these 74.5 MW PV facilities is scheduled to be in commercial operation in 2020. In addition, the resource plan presented in this Site Plan includes a significant amount of additional PV beginning in 2020. These additional PV facilities also are projected to be 74.5 MW each. A number of these PV additions in 2020 and beyond are planned as part of a new voluntary community solar program ("FPL SolarTogether℠"). FPL filed for FPSC approval of this new solar program on March 13, 2019. (This program is discussed further in Chapter III.)

The amount of projected solar in the 2019 Site Plan is approximately double that projected in the 2018 Site Plan. FPL's 2018 Site Plan showed a projected cumulative solar total of approximately 4,134 MW by the end of 2027 (the last year in the 10-year period addressed by the 2018 Site Plan), consisting of approximately 4,059 MW of PV and 75 MW of solar thermal. In this 2019 Site Plan, FPL now projects that a cumulative total of approximately 8,128 MW of solar will be in operation by the end of 2028. Of that total, 8,053 MW will be from PV and 75 MW will be from FPL's existing solar thermal facility. This planned solar implementation schedule is consistent with FPL's January 2019 announcement of its "30

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[1] Each reference to PV capacity in this Site Plan reflects the nameplate rating, AC, unless noted otherwise.

by 30" plan in which FPL stated an objective to install more than 30 million solar panels on FPL's system by the year 2030.

This amount of cumulative solar is based on current projections that these solar additions will be cost-effective for FPL's customers. FPL's resource planning work in 2019 and beyond will continue to analyze the projected system economics of solar.[2]

<u>Similarity # 2: Battery storage costs continue to decline (and FPL's resource plan shows a battery storage addition to its resource plan for the first time)</u>

The actual and projected costs for battery storage have continued to decline. In addition, FPL's on-going analyses of batteries have enabled it to better understand when and how battery storage systems can be utilized economically for FPL's customers. As a result, the resource plan presented in this Site Plan shows the first large-scale addition of batteries on FPL's system: approximately 469 MW of battery storage in late 2021 or early 2022. At least 409 MW of this battery storage capability is projected to be installed in Manatee County. FPL continues to analyze other opportunities to utilize battery storage systems, including combining battery storage with new or existing PV facilities. FPL is also evaluating a number of other battery storage applications to gauge the potential for such applications to be beneficial for FPL's customers if/when projected cost declines occur. Some of these potential applications are being examined through FPL's 50 MW Battery Storage Pilot Project that is discussed in Chapter III.

<u>Similarity # 3: FPL continues to modernize its fleet of fossil-fueled generating units, making the system cleaner, more fuel-efficient, and more economical for customers</u>

FPL has an ongoing program to modernize its fossil fuel generating units based on cost-effectiveness. These efforts continue to substantially improve system fuel efficiency and increase capacity while also reducing system air emission rates (including greenhouse gas emission rates) and reducing fuel costs for FPL customers. FPL plans to continue its investments to further improve the efficiency and capabilities of its fossil-fueled generation fleet in 2019 and beyond through three principal initiatives described below in general chronological order.

The first initiative is the retirement of generating units that are no longer economic to operate. On December 31, 2018, FPL retired two large (approximately 800 MW each) generating units at its Martin

[2] System economics of future solar and gas-fueled generation will depend upon a number of factors other than future PV costs, including, but not necessarily limited to: natural gas costs, environmental compliance costs, potential technology improvements regarding cost and/or efficiency of both solar and gas-fueled generation, and potential system impacts of increasing amounts of solar.

plant site as was described in FPL's 2018 Site Plan. These units, Martin Units 1 & 2, were steam-type generating units that had been in commercial operation for approximately 38 years. As generation technology improved, they had become relatively inefficient units in regard to converting natural gas or oil into electricity.

In this Site Plan, FPL indicates its plan to retire two additional steam generating units: Manatee Units 1 & 2. Each of these units is also approximately 800 MW, and the units have similarly become relatively inefficient compared to current generation technology. As a result, FPL plans to retire these units in late 2021 or early 2022. As previously mentioned, at least 409 MW of the 469 MW of battery storage capability that are scheduled for late 2021 or early 2022 will be sited in Manatee County. This portion of the battery storage capability will partially offset the loss of generation in the Manatee area from the retirement of Manatee Units 1 & 2.

The second initiative is to upgrade the CT components in a number of FPL's existing CC units. Incremental upgrades from the beginning of 2019 are projected to result in increased Summer capacity of approximately 887 MW by the end of 2021.The increased capacity from these upgrades will partially offset the loss of system generation capability from the retirement of the Martin and Manatee units. Information regarding the specific units, timing, and magnitude of these upgrades is presented in Schedule 8 in Chapter III.

The third initiative is the addition of cost-effective, highly fuel efficient new natural gas-fueled combined cycle (CC) generating units. At approximately the same time this Site Plan is filed with the FPSC, a new CC unit, named the Okeechobee Clean Energy Center, will become operational. This new CC unit will supply approximately 1,778 MW of firm capacity that can be delivered around the clock. The new unit was unanimously approved by the FPSC on January 19, 2016 in FPSC Order No. PSC-16-0032-FOF-EI. In 2022, the modernization of FPL's existing Lauderdale power plant site will be completed. The site formerly contained two 442 MW CC units (for a total capacity of approximately 884 MW) that resulted from a repowering project approximately 25 years ago – but which contained certain now-outdated plant components, including the steam turbine, that dated back to the 1950s. These two units will be replaced with a new, modern 1,163 MW 2x1 CC unit scheduled to go in-service by June 2022. The new, high-efficiency CC unit will be named the FPL Dania Beach Clean Energy Center Unit 7.

The FPSC voted unanimously to approve this modernization on March 1, 2018. (FPSC Order No. PSC-2018-0150-FOF-EI issued March 19, 2018). The FPSC based its approval on projections of significant economic savings for FPL's customers; enhanced reliability for both the FPL system and the Southeastern Florida region (Miami-Dade and Broward counties) of FPL's service territory;

reduced use of natural gas system-wide; and reduced system emissions of sulfur dioxide (SO_2), nitrogen oxides (NO_x), and carbon dioxide (CO_2). The Governor and Cabinet, serving as the Power Plant Siting Board, issued a Final Order approving certification of the project on December 13, 2018. Subsequently, the former Fort Lauderdale Units 4 & 5 were retired, and the dismantlement of those facilities is underway as this Site Plan is being prepared.

This Site Plan also shows a new CC unit being added in the Summer of 2026. At this time, the addition of this CC unit is for planning purposes and no final decision is needed regarding this unit for several years. Consequently, no decisions have been made regarding either a site or technology for this unit.

Similarity # 4: FPL continues efforts to retain options regarding nuclear energy generating capacity

Nuclear capacity remains an important factor in FPL's resource planning. Since June 2009, FPL has worked to secure from the federal Nuclear Regulatory Commission (NRC) Combined Operating Licenses (COL) for two future nuclear units, Turkey Point Units 6 & 7, that would be sited at FPL's Turkey Point site (the location of two existing nuclear generating units). In April 2018, FPL received NRC approval for these two COLs. As the FPSC is aware, FPL is currently pausing before deciding whether to seek FPSC approval to move forward with construction of the new nuclear units. FPL intends to incorporate into that decision the construction experience of the nuclear units currently under construction by Georgia Power at its Vogtle site and similar units being developed in China. As a result, and similar to the case with FPL's 2018 Site Plan, the earliest possible in-service dates for Turkey Point 6 & 7 are beyond the 10-year time period addressed in this 2019 Site Plan.

In addition, on January 30, 2018, FPL applied to the NRC for Subsequent License Renewal (SLR) for FPL's existing Turkey Point Units 3 & 4. The current license terms for these two existing nuclear units extend into the years 2032 and 2033, respectively. The SLR requests approval to extend the operating licenses by 20 years to 2052 and 2053, respectively. The SLR review process by the NRC is now underway and a decision is not expected until mid-2020, at the earliest.

For these reasons, this Site Plan continues to present the Turkey Point location as a Preferred Site for nuclear generation.

Similarity # 5: Key components of FPL's system costs continue to drop.

There are a number of factors that drive FPL's system costs. Three of the most important of these are: (i) forecasted natural gas costs, (ii) forecasted compliance costs for carbon dioxide (CO_2), and (iii) the efficiency with which FPL's generating units convert fuel into electricity. When comparing forecasts of these factors over at least the last 5 years, the trends for each of these factors is in a direction that results in lower system costs for FPL's customers. For example, when comparing the 2014 forecasted cost for natural gas for the year 2020 with the current (2019) forecasted cost for 2020, there has been more than a 50% decrease in natural gas costs. An even greater reduction in CO_2 compliance costs for 2020 occurred between the 2014 forecast and the current forecast. In addition, in regard to the fuel efficiency of FPL's generating units, the amount of natural gas (measured in mmBTU of natural gas needed to produce a kWh of electricity) declined from 7,376 in 2014 to approximately 6,867 today. This improvement in fuel efficiency is truly significant, especially when considering the approximately 20,000 MW of gas-fueled generation on FPL's system.

These trends of steadily lowering of key components of FPL's system costs are very beneficial to FPL's customers because they help lower FPL's electric rates.[3]

II. Other Factors That Have Influenced, or Could Further Influence, FPL's Resource Additions:

There are a number of factors that have influenced, or which may influence, FPL's resource additions. Six such factors, not mentioned above, are summarized below and are presented in no particular order. These factors and/or their potential influences on the resource plan presented in this Site Plan are further discussed in Chapters II and III.

Factor # 1: The critical need to maintain a balance between load and generating capacity in Southeastern Florida (Miami-Dade and Broward counties). This balance has both reliability and economic implications for FPL's system and customers and it is a key reason that FPL sought and obtained an affirmative need determination decision from the FPSC for the Lauderdale modernization described above.

Factor # 2: The desire to maintain/enhance fuel diversity in the FPL system while considering system economics. Diversity is sought in terms of the types of fuel that FPL utilizes and how these fuels are transported to the locations of FPL's generation units. These fuel diversity objectives are considered in light of economic impacts to FPL's customers. For example, FPL is cost-effectively adding PV generation in 2019 and beyond which enhances fuel diversity. At the same time, FPL is retiring coal generation and older, fuel-inefficient oil- or gas-fueled generation because these generating units are

[3] However, because the potential benefits of utility demand-side management (DSM) programs are based on DSM's ability to avoid certain system costs, the trend of steadily decreasing FPL system costs automatically results in a significant lowering of the cost-effectiveness of utility DSM for FPL's system.

no longer cost-effective for FPL's customers. In addition, FPL also seeks to further enhance the efficiency with which it uses natural gas to generate electricity.

Factor # 3: The need to maintain an appropriate balance of DSM and supply resources from the perspectives of both system reliability and operations. FPL addresses this through the use of a 10% generation-only reserve margin (GRM) reliability criterion to complement its other two reliability criteria: a 20% total reserve margin for Summer and Winter, and an annual 0.1 day/year loss-of-load-probability (LOLP) criterion. Together, these three criteria allow FPL to address this specific concern regarding system reliability and operations in a comprehensive manner.

Factor # 4: The significant impact of federal and state energy-efficiency codes and standards. The incremental impacts of these energy-efficiency codes and standards, from a beginning year 2019 starting point through the year 2028, are projected to have significant impacts by reducing FPL's forecasted Summer and Winter peak loads, and by reducing FPL's annual net energy for load (NEL). In addition, energy-efficiency codes and standards significantly reduce the potential for cost-effective energy efficiency that might otherwise have been obtained through FPL's DSM programs. The projected substantial impacts of these energy efficiency codes and standards are discussed in more detail in Chapter II.

Factor # 5: The increased competitiveness of battery storage. The costs of battery storage have continued to decline thus making it a more competitive resource option. In the resource plan presented in this Site Plan, FPL is projecting battery storage as a firm capacity addition for the first time with approximately 469 MW of new battery storage being added in late 2021 or early 2022. In addition, FPL is actively evaluating a variety of other potential battery storage uses on its system through a variety of pilot projects.

Factor # 6: Projected changes in CO_2 regulation and associated compliance costs. Since 2007, FPL has evaluated potential carbon dioxide (CO_2) regulation and/or legislation and has included projected compliance costs for CO_2 emissions in its resource planning work. However, there always has been an unavoidable level of uncertainty regarding the timing and magnitude of the cost impacts of the potential regulation/legislation. The forecast of potential CO_2 compliance costs that FPL used in its 2018 resource planning work was lower than forecasts that had been used in prior years. In 2019, the forecasted compliance costs remain relatively low. Projected lower compliance costs are due to a number of factors projected for the Southeastern region of the U.S. including Florida. These factors include at least the following: lower forecasted growth rates in electricity usage; lower forecasted costs of natural gas; retirements of existing coal units; and increasing implementation of renewable energy sources including solar.

FPL will continue to examine each of these factors in its ongoing resource planning work in 2019 and future years.

III. A Summary of FPL's Projected Resource Changes:

FPL's current projection of major changes in its resources for the years 2019 through 2028 is summarized in Table ES-1. The changes are presented in terms of Summer firm capacity values. Although this table does not specifically identify the impacts of projected DSM additions on FPL's resource needs and resource plan, the projected DSM additions reflected in the resource plan presented in this Site Plan are consistent with its existing DSM Goals for the year 2019, and with FPL's proposed DSM Goals for the years 2020 through 2029. Thus, DSM impacts are fully accounted for in the resource plan presented in this Site Plan.

The generation/capacity additions include, in approximate chronological order: (i) the FPL Okeechobee Clean Energy Center CC unit in 2019; (ii) SoBRA PV additions in 2020, (iii) SolarTogether and other PV additions beginning in 2020 through 2028; (iv) capacity upgrades at a number of FPL's existing CC units through at least 2021; (v) battery storage in late 2021 or early 2022, (vi) the modernization of the existing Lauderdale power plant site in mid-2022 with the new DBEC CC Unit 7; and, (vii) the projected addition of a new unsited CC unit in 2026.

FPL notes that, with certain exceptions (such as the 2019 Okeechobee CC, the 2020 SoBRA and SolarTogether PV, the CC upgrades, and the 2022 Dania Beach Clean Energy Center (DBEC) Unit 7), no final decisions are needed at this time, nor have yet been made, regarding other resource additions shown in the 2019 Site Plan. This is particularly relevant to resource additions shown for years increasingly further out in time after 2019. Consequently, those resource additions are more prone to future change.

In regard to the PV for the years 2020-on, the PV additions shown in Table ES-1 at the end of this chapter (and in numerous other schedules presented in other chapters) reflect PV additions that were developed through resource planning analyses that were completed prior to finalizing the petition for FPSC approval of FPL's SolarTogether program. If the SolarTogether program is approved by the FPSC as filed, then it is likely that the PV MW additions shown in Table ES-1 would then change. Such a change would be to install PV more quickly than is reflected in Table ES-1 to meet anticipated customer demand for this new program. The outcome of the FPSC's decision regarding the SolarTogether program, particularly in regard to the annual amounts of PV additions, will be reflected in FPL's 2020 Site Plan.

Finally, on January 1, 2019, Gulf Power became a subsidiary of NextEra Energy, Inc. which also owns Florida Power & Light Company (FPL). Prior to this transaction, resource planning analyses for Gulf Power were performed by Southern Company Services. Among other things, such planning was based on Gulf remaining a part of the Southern Company system. Going forward, these planning services will be performed for Gulf Power by the resource planning group at FPL.

Because of the lead times associated with resource planning and the timing of the transaction, the Gulf Power 2019 Site Plan does not reflect the Gulf resource planning analyses that currently are being performed. These analyses are expected to continue throughout 2019. Among the resource options under active consideration is a potential new transmission line(s) that could connect Gulf Power with FPL. Analysis of such a potential new transmission line(s) connecting the two companies could conceivably have impacts on both companies' resource plans. The resource plans for FPL and Gulf that would be presented in their respective 2020 Site Plans would reflect the impact of any such analyses once completed.

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

Year [1/]	Projected Capacity & Firm Purchase Power Changes	Summer MW (Approx.)	Date	Summer Reserve Margin [2/]
2019	SoBRA PV [3/]	165	January-19	
	Okeechobee Clean Energy Center	1,778	April-19	
	Sanford 5	159	April-19	
	West County 2	64	April and May 2019	
	Turkey Point 5	46	May and June 2019	
	Fort Myers 2	239	May and August 2019	
	Sanford 4	148	June-19	
	Total of MW changes to Summer firm capacity:	**2,600**		**20.6%**
2020	Cape Canaveral Energy Center 3	33	November-19	
	Manatee 3	116	November-19	
	Turkey Point 5	40	December-19	
	Solar PV [3/, 4/]	248	January-20	
	SoBRA PV [3/]	165	April-20	
	Solar Degradation [3/]	(2)		
	Total of MW changes to Summer firm capacity:	**600**		**21.0%**
2021	Turkey Point 4	20	October-20	
	Solar PV [3/, 4/]	248	Fourth Quarter 2020	
	West County 3	22	May-21	
	Solar Degradation [3/]	(3)		
	Total of MW changes to Summer firm capacity:	**286**		**21.2%**
2022	Manatee 1 Retirement	(809)	Fourth Quarter 2021	
	Manatee 2 Retirement	(809)	Fourth Quarter 2021	
	Battery Storage	469	Fourth Quarter 2021	
	Solar PV [3/, 4/]	449	First Quarter 2022	
	Lauderdale Modernization (Dania Beach Clean Energy Center Unit 7)	1,163	June-2022	
	Solar Degradation [3/]	(4)		
	Total of MW changes to Summer firm capacity:	**459**		**22.5%**
2023	Solar PV [3/]	347	First Quarter 2023	
	Solar Degradation [3/]	(5)		
	Total of MW changes to Summer firm capacity:	**342**		**22.3%**
2024	Solar PV [3/]	289	First Quarter 2024	
	Solar Degradation [3/]	(6)		
	Total of MW changes to Summer firm capacity:	**283**		**21.6%**
2025	Solar PV [3/]	405	First Quarter 2025	
	Solar Degradation [3/]	(7)		
	Total of MW changes to Summer firm capacity:	**398**		**21.6%**
2026	Unsited Combined Cycle	1,886	June-2026	
	Solar Degradation [3/]	(8)		
	Total of MW changes to Summer firm capacity:	**1,878**		**27.3%**
2027	Solar PV [3/]	347	First Quarter 2027	
	Solar Degradation [3/]	(8)		
	Total of MW changes to Summer firm capacity:	**339**		**26.4%**
2028	Solar PV [3/]	321	First Quarter 2028	
	Solar Degradation [3/]	(9)		
	Total of MW changes to Summer firm capacity:	**312**		**25.3%**

[1/] Year shown reflects when the MW change begins to be accounted for in Summer reserve margin calculations.
[2/] Winter Reserve Margins are typically higher than Summer Reserve Margins. Winter Reserve Margins are shown on Schedule 7.2 in Chapter III.
[3/] MW values shown for the PV facilities represent the firm capacity assumptions for the PV facilities and FPL currently assumes 0.3% degradation annually for PV output.
[4/] Solar PV MW values, and timing of those MW, presented in this table are subject to change based on the outcome of FPL's petition for FPSC approval of FPL's SolarTogether Program. Please see Chapter III for more information.

CHAPTER I

Description of Existing Resources

I. Description of Existing Resources

FPL's service area contains approximately 27,650 square miles and has a population of approximately ten million people. FPL served an average of 4,961,330 customer accounts in 35 counties during 2018. These customers were served by a variety of resources including: FPL-owned fossil-fuel, renewable (solar), and nuclear generating units; non-utility owned generation; demand side management (DSM); and interchange/purchased power.

I.A. FPL-Owned Resources

As of December 31, 2018, FPL owned electric generating resources located at 24 sites distributed geographically throughout its service territory, plus one site in Georgia (partial FPL ownership of one unit). These generating facilities consisted of: four nuclear units, one (the aforementioned partially owned) coal unit, 14 combined-cycle (CC) units, two fossil steam units, four gas turbines (GTs), nine simple-cycle combustion turbines (CTs), and 13 solar photovoltaic (PV) facilities.[4] In late December 2018, four generating units were retired: Martin Units 1 and 2, and Lauderdale Units 4 and 5. The locations of the 47 generating units that were in commercial operation on December 31, 2018 are shown on Figure I.A.1 and in Table I.A.1.

FPL notes that there have been some significant changes to its generation fleet since December 31, 2018. Four new PV facilities began service in the first Quarter of 2019, Lauderdale 4 and 5 and Martin 1 and 2 were retired in December 2018, and new Okeechobee Clean Energy Center combined cycle is scheduled to begin commercial operation at approximately the same time this Site Plan is filed with the FPSC.

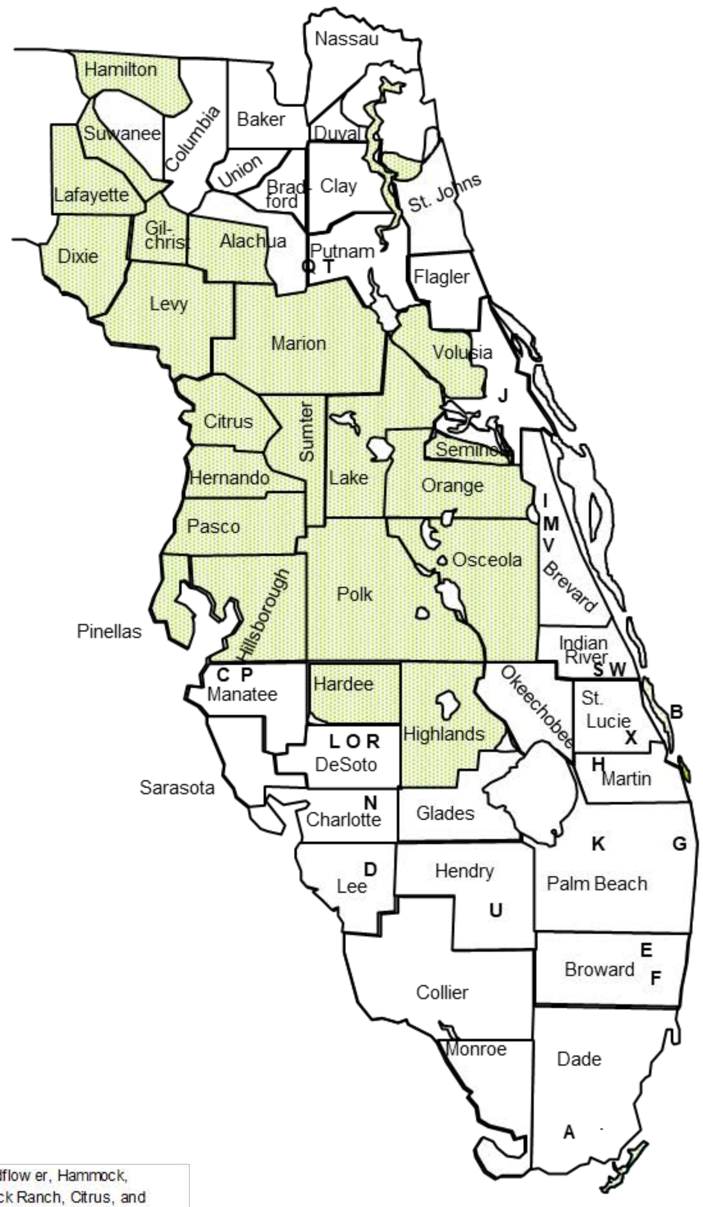
FPL's bulk transmission system, including both overhead and underground lines, is comprised of 7,132 circuit miles of transmission lines. Integration of the generation, transmission, and distribution systems is achieved through FPL's 645 substations in Florida.

The existing FPL system, including generating plants, major transmission stations, and transmission lines, is shown on Figure I.A.2.

[4] FPL also has one 75 MW solar thermal facility at its Martin plant site. This facility does not generate electricity as the other units mentioned above do. Instead, it produces steam that reduces the use of fossil fuel to produce steam for electricity generation.

FPL Generating Resources by Location

Location/ Map Key	Plant Name	Number of Units	Summer MW
A	Turkey Point	3	2,825
B	St. Lucie [1/]	2	1,821
C	Manatee	3	2,751
D	Fort Myers	5	2,425
E	Lauderdale	5	1,155
F	Port Everglades	1	1,237
G	Riviera Beach	1	1,290
H	Martin	3	2,209
I	Cape Canaveral	1	1,257
J	Sanford	2	2,046
K	West County	3	3,692
L	DeSoto Solar [2/]	1	25
M	Space Coast Solar [2/]	1	10
N	Babcock Ranch Solar [2/]	1	74.5
O	Citrus Solar [2/]	1	74.5
P	Manatee Solar [2/]	1	74.5
Q	Horizon Solar [2/]	1	74.5
R	Wildflower Solar [2/]	1	74.5
S	Indian River Solar [2/]	1	74.5
T	Coral Farms Solar [2/]	1	74.5
U	Hammock Solar [2/]	1	74.5
V	Barefoot Bay Solar [2/]	1	74.5
W	Blue Cypress Solar [2/]	1	74.5
X	Loggerhead Solar [2/]	1	74.5
	Scherer [3/]	1	634
	Gas Turbines	4	177
	Total System Generation =	**47**	**24,373**
	System Firm Generation =		**23,970**



1/ Represents FPL's ownership share: St Lucie nuclear: 100% Unit 1, 85% Unit 2.

2/ Approximately 54% of the 74.5 MW PV facility at Coral Farms, Horizon, Indian River, Wildflower, Hammock, Barefoot Bay, Blue Cypress, and Loggerhead, 52% of the 74.5 MW PV facility at Babcock Ranch, Citrus, and Manatee, 45% of the 25 MW PV facility at Desoto, and 31% of the 10 MW of PV at Space Coast, are considered as firm generating capacity for Summer reserve margin purposes.

3/ 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, 2018)

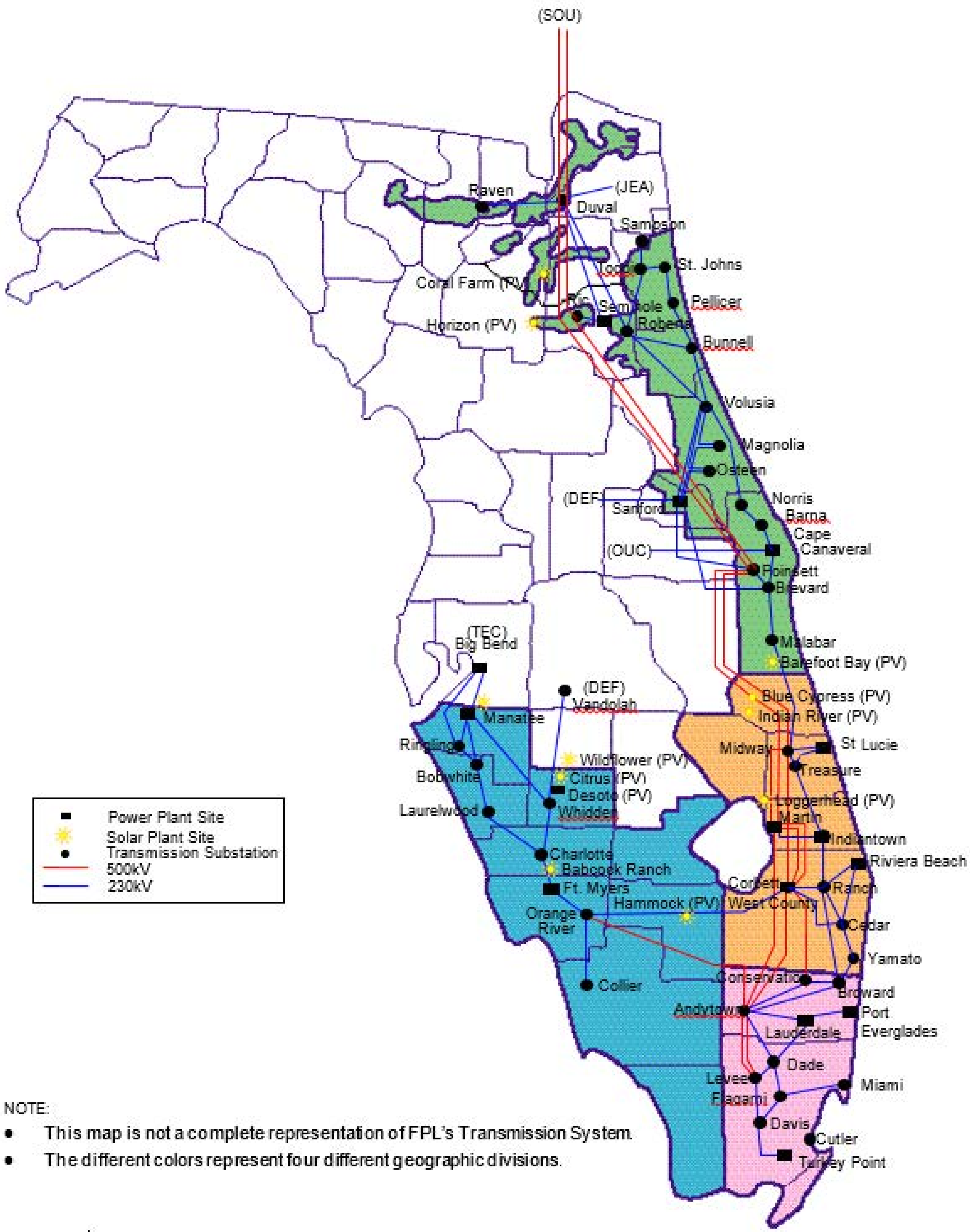
Table I.A.1: Capacity Resource by Unit Type (as of December 31, 2018)

Unit Type/ Plant Name	Location	Number of Units	Fuel	Summer MW
Nuclear				
St. Lucie [1/]	Hutchinson Island, FL	2	Nuclear	1,821
Turkey Point	Florida City, FL	2	Nuclear	1,658
Total Nuclear:		**4**		**3,479**
Coal Steam				
Scherer	Monroe County, Ga	1	Coal	634
Total Coal Steam:		**1**		**634**
Combined-Cycle				
Fort Myers	Fort Myers, FL	1	Gas	1,573
Manatee	Manatee County, FL	1	Gas	1,133
Martin	Indiantown, FL	2	Gas	974
Sanford	Lake Monroe, FL	2	Gas	2,046
Cape Canaveral	Cocoa, FL	1	Gas/Oil	1,257
Martin	Indiantown, FL	1	Gas/Oil	1,235
Port Everglades	City of Hollywood, FL	1	Gas/Oil	1,237
Riviera Beach	City of Riviera Beach, FL	1	Gas/Oil	1,290
Turkey Point	Florida City, FL	1	Gas/Oil	1,167
West County	Palm Beach County, FL	3	Gas/Oil	3,692
Total Combined Cycle:		**14**		**15,604**
Oil/Gas Steam				
Manatee	Manatee County, FL	2	Oil/Gas	1,618
Total Oil/Gas Steam:		**2**		**1,618**
Gas Turbines(GT)				
Fort Myers (GT)	Fort Myers, FL	2	Oil	108
Lauderdale (GT)	Dania, FL	2	Gas/Oil	69
Total Gas Turbines/Diesels:		**4**		**177**
Combustion Turbines				
Lauderdale	Dania, FL	5		1,155
Fort Myers	Fort Myers, FL	4	Gas/Oil	852
Total Combustion Turbines:		**9**		**2,007**
PV [2/]				
DeSoto Solar	DeSoto County, FL	1	Solar Energy	25
Babcock Ranch Solar	Charlotte County, FL	1	Solar Energy	74.5
Citrus Solar	DeSoto County, FL	1	Solar Energy	74.5
Manatee Solar	Manatee County, FL	1	Solar Energy	74.5
Space Coast Solar	Brevard County, FL	1	Solar Energy	10
Horizon Solar	Putnam and Alachua Counties, FL	1	Solar Energy	74.5
Wildflower Solar	Desoto County, FL	1	Solar Energy	74.5
Indian River Solar	Indian River County, FL	1	Solar Energy	74.5
Coral Farms Solar	Putnam County, FL	1	Solar Energy	74.5
Hammock Solar	Hendry County, FL	1	Solar Energy	74.5
Barefoot Bay Solar	Brevard County, FL	1	Solar Energy	74.5
Blue Cypress Solar	Indian River County, FL	1	Solar Energy	74.5
Loggerhead Solar	St. Lucie County, FL	1	Solar Energy	74.5
Total PV:		**13**		**855**
	Total System Generation as of December 31, 2018 =	**47**		**24,373**
	System Firm Generation as of December 31, 2018 =			**23,970**

1/ Total capability of St. Lucie 1 is 981/1,003 MW. FPL's share of St. Lucie 2 is 840/860. FPL's ownership share of St. Lucie Units 1 and 2 is 100% and 85%, respectively.

2/ Approximately 54% of the 74.5 MW PV facility at Coral Farms, Horizon, Indian River, Wildflower, Hammock, Barefoot Bay, Blue Cypress, and Loggerhead, 52% of the 74.5 MW PV facility at Babcock Ranch, Citrus, and Manatee, 45% of the 25 MW PV facility at Desoto, and 31% of the 10 MW of PV at Space Coast, are considered as firm generating capacity for Summer reserve margin purposes.

FPL Bulk Transmission System



NOTE:

- This map is not a complete representation of FPL's Transmission System.
- The different colors represent four different geographic divisions.

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

I.B Capacity and Energy Power Purchases

Firm Capacity: Purchases from Qualifying Facilities (QF)

Firm capacity power purchases remain part of FPL's resource mix. A cogeneration facility is one that simultaneously produces electrical and thermal energy, with the thermal energy (*e.g.*, steam) used for industrial, commercial, or cooling and heating purposes. A small power production facility is one that 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 solar, wind, waste, geothermal, or other renewable resources as its primary energy source.

FPL currently has four contracts with qualifying facilities (*e.g.*, cogeneration/small power production facilities) to purchase firm capacity and energy during the 10-year reporting period of this Site Plan. The 2018 actual and 2019 projected future contributions from these facilities are shown in Table I.B.1, Table I.B.2, and Table I.B.3. As discussed in FPL's 2018 Site Plan, the FPSC approved (Order No. PSC-16-0506-FOF-EI) FPL's acquisition of the rights to the 330 MW Indiantown Cogen LP (ICL) unit and the associated power purchase agreement (PPA). FPL currently projects that it will cancel this PPA by the end of the 1st Quarter of 2020 because the agreement is no longer cost-effective for FPL's customers.

Firm Capacity: Purchases from Utilities

FPL currently has a PPA with Orlando Utilities Commission. Information regarding this PPA is shown in Table I.B.2 and Table I.B.3.

Firm Capacity: Other Purchases

FPL has two other firm capacity purchase contracts with the Palm Beach Solid Waste Authority. Table I.B.2 and I.B.3 present the Summer and Winter MW, respectively, resulting from these contracts under the category heading of Other Purchases.

Non-Firm (As Available) Energy Purchases

FPL purchases non-firm (as-available) energy from a number of cogeneration and small power production facilities. The lower half of Table I.B.1 shows the amount of energy purchased in 2018 from these facilities.

Table I.B.1: Purchase Power Resources by Contract (as of December 31, 2018)

Firm Capacity Purchases (MW)	Location (City or County)	Fuel	Summer MW
I. Purchase from QF's: Cogeneration/Small Power Production Facilities			
Indiantown Cogen LP	Martin	Coal (Cogen)	330
Broward South	Broward	Solid Waste	4
		Total:	334
II. Purchases from Utilities & IPP			
Palm Beach SWA - extension	Palm Beach	Solid Waste	40
Palm Beach SWA - New Unit	Palm Beach	Solid Waste	70
OUC/FMPA	Orange	Gas	100
		Total:	210
	Total Net Firm Generating Capability:		544

Non-Firm Energy Purchases (MWH)

Project	County	Fuel	Energy (MWH) Delivered to FPL in 2018
Miami Dade Resource Recovery [1/]	Dade	Solid Waste	43,417
Okeelanta (known as Florida Crystals and New Hope Power Partners) [1/]	Palm Beach	Bagasse/Wood	30,302
Brevard County [1/]	Brevard	Solid Waste	33,634
Broward South [1/]	Broward	Solid Waste	29,411
Lee County Solid Waste[1/]	Lee	Solid Waste	38,825
Waste Management - Collier County Landfill [1/]	Collier	Landfill Gas	18,016
Tropicana	Manatee	Natural Gas	5,415
Georgia Pacific	Putnam	Paper by-product	4,164
Waste Management Renewable Energy [1/]	Broward	Landfill Gas	1,385
Customer Owned PV & Wind	Various	PV/Wind	46,992

1/ These Non-Firm Energy Purchases are renewable and are reflected on Schedule 11.1, row 9, column 6.

Table I.B.2: 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 1/	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Broward South	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0	0
Broward South	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0	0
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	0
Indiantown Cogen L.P.	12/22/95	1st Qtr/2020	330	0	0	0	0	0	0	0	0	0
		QF Purchases Subtotal:	**334**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**0**	**0**

II. Purchases from Utilities

	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OUC / FMPA	10/01/18	12/31/20	100	100	0	0	0	0	0	0	0	0
		Utility Purchases Subtotal:	**100**	**100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Total of QF and Utility Purchases =	**434**	**104**	**4**	**4**	**4**	**4**	**4**	**4**	**0**	**0**

III. Other Purchases

	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Palm Beach SWA - Extension 2/	01/01/12	04/01/34	40	40	40	40	40	40	40	40	40	40
Palm Beach SWA - Additional	01/01/15	04/01/34	70	70	70	70	70	70	70	70	70	70
		Other Purchases Subtotal:	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**

Total "Non-QF" Purchases =	**210**	**210**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Summer Firm Capacity Purchases Total MW:	**544**	**214**	**114**	**114**	**114**	**114**	**114**	**114**	**110**	**110**

1/ The Indiantown Cogen L.P. PPA is projected to end, and the generating unit to be retired, in 1st Quarter 2020.

2/ When the second unit came into commercial service at the Palm Beach SWA, neither unit met the standards to be a small power producer, and it then became accounted for under "Other Purchases"

Table I.B.3: 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 [1/]	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Broward South	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0	0
Broward South	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0	0
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	0
Indiantown Cogen L.P.	12/22/95	1st Qtr/2020	330	330	0	0	0	0	0	0	0	0
		QF Purchases Subtotal:	**334**	**334**	**4**	**4**	**4**	**4**	**4**	**4**	**0**	**0**

II. Purchases from Utilities

	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
OUC / FMPA	10/01/18	12/31/20	70	70	0	0	0	0	0	0	0	0
		Utility Purchases Subtotal:	**70**	**70**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Total of QF and Utility Purchases =	**404**	**404**	**4**	**4**	**4**	**4**	**4**	**4**	**0**	**0**

III. Other Purchases

	Contract Start Date	Contract End Date	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Palm Beach SWA - Extension [2/]	01/01/12	04/01/34	40	40	40	40	40	40	40	40	40	40
Palm Beach SWA - Additional	01/01/15	04/01/34	70	70	70	70	70	70	70	70	70	70
		Other Purchases Subtotal:	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**

Total "Non-QF" Purchases =	**180**	**180**	**110**	**110**	**110**	**110**	**110**	**110**	**110**	**110**

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Winter Firm Capacity Purchases Total MW:	**514**	**514**	**114**	**114**	**114**	**114**	**114**	**114**	**110**	**110**

1/ The Indiantown Cogen L.P. PPA is projected to end, and the generating unit to be retired, in 1st Quarter 2020.

2/ When the second unit came into commercial service at the Palm Beach SWA, neither unit met the standards to be a small power producer, and it then became accounted for under "Other Purchases"

I.C Demand Side Management (DSM)

FPL has continually explored and implemented cost-effective DSM programs since 1978, and it has consistently been among the leading utilities nationally in achieving substantial DSM efficiencies. These programs include a number of innovative conservation/energy efficiency and load management initiatives. Importantly, FPL's DSM efforts through 2018 have resulted in a cumulative Summer peak reduction of approximately 4,840 MW at the generator and an estimated cumulative energy savings of approximately 86,108 Gigawatt-Hour (GWh) at the generator. After accounting for the 20% total reserve margin requirements, FPL's highly effective DSM efforts through 2018 have eliminated the need to construct the equivalent of approximately fifteen (15) new 400 MW generating units. Also, it is important to note that FPL has achieved these significant DSM accomplishments while minimizing the DSM-based impact on electric rates for all of its customers.

In 2014, the Florida Public Service Commission (FPSC) set DSM Goals for FPL and the other Florida utilities subject to the Florida Energy Efficiency and Conservation Act (FEECA) that addressed the years 2015 through 2024. By the end of 2019, the FPSC is scheduled to set new DSM Goals for FPL and these other Florida utilities that address the years 2020 through 2029. This goal-setting process is one in which each utility proposes new DSM Goals that are based on current analyses of the utility's future resource needs and projected economic viability of additional DSM resources. FPL and the other Florida utilities are scheduled to present their proposed DSM Goals to the FPSC in filings that will occur shortly after this Site Plan is filed.

In this Site Plan, FPL is projecting incremental DSM for the year 2019 that complies with the existing DSM Goals for this year. In addition, this Site Plan projects incremental DSM levels for 2020-on that are consistent with the annual DSM levels that FPL is proposing as its new DSM Goals for years beginning in 2020. The FPSC is scheduled to finalize FPL's DSM Goals for 2020 through 2029 in late 2019. FPL's 2020 Site Plan will reflect the DSM Goals that are ultimately set for FPL by the FPSC.

Schedule 1

Existing Generating Facilities
As of December 31, 2018

(1) Plant Name	(2) Unit No.	(3) Location	(4) Unit Type	(5) Fuel Pri.	(6) Fuel Alt.	(7) Fuel Transport Pri.	(8) Fuel Transport Alt.	(9) Alt. Fuel Days Use	(10) Commercial In-Service Month/Year	(11) Actual/ Expected Retirement Month/Year	(12) Gen.Max. Nameplate KW	(13) Net Capability [1/] Winter MW	(14) Net Capability [1/] Summer MW
Babcock Ranch Solar [2/]		Charlotte County											
		19,30,31/42S/26E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Dec-16	Unknown	74,500	74.5	74.5
Barefoot Solar [2/]		Brevard County											
		15,16/30S/38E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Mar-18	Unknown	74,500	74.5	74.5
Blue Cypress Solar [2/]		Indian River County											
		16,21/33S/38E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Mar-18	Unknown	74,500	74.5	74.5
Cape Canaveral		Brevard County											
		19/24S/36E									1,295,400	1,378	1,257
	3		CC	NG	FO2	PL	TK	Unknown	Apr-13	Unknown	1,295,400	1,378	1,257
Citrus Solar [2/]		DeSoto County											
		18,19/33S/20E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Dec-16	Unknown	74,500	74.5	74.5
Coral Farms Solar [2/]		Putnam County											
		27,28,33,34/8S/24E : 3,9S/24E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Jan-18	Unknown	74,500	74.5	74.5
DeSoto [2/]		DeSoto County											
		25,26/36S/25E									22,500	25	25
	1		PV	Solar	Solar	N/A	N/A	Unknown	Oct-09	Unknown	22,500	25	25
Fort Myers		Lee County											
		35/43S/25E									2,680,890	2,709	2,533
	2		CC	NG	No	PL	No	Unknown	Jun-02	Unknown	1,721,490	1,746	1,573
	3		CT	NG	FO2	TK	TK	Unknown	Jun-03	Unknown	835,380	840	852
	1, 9		GT	FO2	No	WA	No	Unknown	May-74	Unknown	124,020	123	108
Hammock Solar [2/]		Hendry County											
		33,34/43S/30E : 3,4,9,10/44S/30E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Mar-18	Unknown	74,500	74.5	74.5
Horizon Solar [2/]		Putnam and Alachua Counties											
		30,31/33S/38E (Putnam) : 25,35,36/9S/22E (Alachua)									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Jan-18	Unknown	74,500	74.5	74.5
Indian River Solar [2/]		Indian River County											
		30,31/33S/38E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Jan-18	Unknown	74,500	74.5	74.5
Lauderdale		Broward County											
		19,20,25,30/50S/41,42E									1,215,956	1,184	1,224
	6		CT	NG	FO2	PL	TK	Unknown	Dec-16	Unknown	1,147,500	1,110	1,155
	3, 5		GT	NG	FO2	PL	TK	Unknown	Aug-70	Unknown	68,456	74	69
Loggerhead Solar [2/]		St. Lucie County											
		21,33,28/37S/38E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Mar-18	Unknown	74,500	74.5	74.5
Manatee Solar [2/]		Manatee County											
		19/33S/20E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Dec-16	Unknown	74,500	74.5	74.5

1/ These ratings are peak capability.

2/ Approximately 54% of the 74.5 MW PV facility at Coral Farms, Horizon, Indian River, Hammock, Barefoot Bay, Blue Cypress, and Loggerhead, 52% of the 74.5 MW PV Facility at Babcock Ranch, Citrus, and Manatee and 45% of the 25 MW PV facility at Desoto is considered as firm generating capacity for Summer reserve margin purposes and 0% is considered as firm capacity for Winter reserve margin purposes.

Schedule 1

Existing Generating Facilities
As of December 31, 2018

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
						Fuel		Alt.		Actual/		Net Capability [1/]	
	Unit		Unit	Fuel		Transport		Fuel Days	Commercial In-Service	Expected Retirement	Gen.Max. Nameplate	Winter	Summer
Plant Name	No.	Location	Type	Pri.	Alt.	Pri.	Alt.	Use	Month/Year	Month/Year	KW	MW	MW
Manatee		Manatee County 18/33S/20E									2,951,110	2,903	2,751
	1		ST	NG	FO6	PL	WA	Unknown	Oct-76	Unknown	863,300	819	809
	2		ST	NG	FO6	PL	WA	Unknown	Dec-77	Unknown	863,300	819	809
	3		CC	NG	No	PL	No	Unknown	Jun-05	Unknown	1,224,510	1,265	1,133
Martin		Martin County 29/39S/38E									2,448,510	2,337	2,209
	3		CC	NG	No	PL	No	Unknown	Feb-94	Unknown	612,000	533	487
	4		CC	NG	No	PL	No	Unknown	Apr-94	Unknown	612,000	533	487
	8 [4/]		CC	NG	FO2	PL	TK	Unknown	Jun-05	Unknown	1,224,510	1,271	1,235
Port Everglades		City of Hollywood 23/50S/42E									1,412,700	1,338	1,237
	5		CC	NG	FO2	PL	TK	Unknown	Apr-16	Unknown	1,412,700	1,338	1,237
Riviera Beach		City of Riviera Beach 33/42S/432E									1,295,400	1,393	1,290
	5		CC	NG	FO2	PL	TK	Unknown	Apr-14	Unknown	1,295,400	1,393	1,290
Sanford		Volusia County 16/19S/30E									2,377,720	2,281	2,046
	4		CC	NG	No	PL	No	Unknown	Oct-03	Unknown	1,188,860	1,147	1,029
	5		CC	NG	No	PL	No	Unknown	Jun-02	Unknown	1,188,860	1,134	1,017
Scherer [2/]		Monroe, GA									680,368	635	634
	4		ST	SUB	No	RR	No	Unknown	Jul-89	Unknown	680,368	635	634
Space Coast [3/]		Brevard County 13/23S/36E									10,000	10	10
	1		PV	Solar	Solar	N/A	N/A	Unknown	Apr-10	Unknown	10,000	10	10
St. Lucie [5/]		St. Lucie County 16/36S/41E									1,999,128	1,863	1,821
	1		ST	Nuc	No	TK	No	Unknown	May-76	Unknown	1,080,000	1,003	981
	2		ST	Nuc	No	TK	No	Unknown	Jun-83	Unknown	919,128	860	840
Turkey Point		Miami Dade County 27/57S/40E									2,978,910	2,960	2,825
	3		ST	Nuc	No	TK	No	Unknown	Nov-72	Unknown	877,200	859	837
	4		ST	Nuc	No	TK	No	Unknown	Jun-73	Unknown	877,200	848	821
	5		CC	NG	FO2	PL	TK	Unknown	May-07	Unknown	1,224,510	1,253	1,167
West County		Palm Beach County 29&32/43S/40E									4,100,400	4,027	3,692
	1		CC	NG	FO2	PL	TK	Unknown	Aug-09	Unknown	1,366,800	1,369	1,259
	2		CC	NG	FO2	PL	TK	Unknown	Nov-09	Unknown	1,366,800	1,309	1,195
	3		CC	NG	FO2	PL	TK	Unknown	May-11	Unknown	1,366,800	1,349	1,238
Wildflower Solar [3/]		Desoto County 25,26/36S/25E									74,500	74.5	74.5
	1		PV	Solar	Solar	N/A	N/A	Unknown	Jan-18	Unknown	74,500	74.5	74.5
										Total System Generating Capacity as of December 31, 2018 [6/] =		**25,862**	**24,373**
										System Firm Generating Capacity as of December 31, 2018 [7/] =		**25,008**	**23,970**

1/ These ratings are peak capability.

2/ These ratings relate to FPL's 76.36% share of Plant Scherer Unit 4 operated by Georgia Power, and represent FPL's 73.923% ownership share available at point of interchange.

3/ Approximately 54% of the 74.5 MW PV facility at Wildflower, and 31% of the 10 MW PV facility at Space Coast is considered as firm generating capacity for Summer reserve margin purposes and 0% is considered as firm capacity for Winter reserve margin purposes.

4/ Martin Unit 8 is also partially fueled by a 75 MW solar thermal facility that supplies steam when adequate sunlight is available, thus reducing fossil fuel use.

5/ Total capability of St. Lucie 1 is 981/1,003 MW. FPL's share of St. Lucie 2 is 840/860.FPL's ownership share of St. Lucie Units 1 and 2 is 100% and 85%, respectively, as shown above. FPL's share of the deliverable capacity from each unit is approx. 92.5% and exclude the Orlando Utilities Commission (OUC) and Florida Municipal Power Agency (FMPA) combined portion of approximately 7.448% per unit.

6/ The Total System Generating Capacity value shown includes FPL-owned firm and non-firm generating capacity.

7/ The System Firm Generating Capacity value shown includes only firm generating capacity.

CHAPTER II

Forecast of Electric Power Demand

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II. Forecast of Electric Power Demand

II.A. Overview of the Load Forecasting Process

FPL typically develops long-term forecasts of sales, net energy for load (NEL), and peak loads on an annual basis for its resource planning work. FPL developed new long-term forecasts in December 2018. These new load forecasts are utilized throughout FPL's 2019 Site Plan and are a key input to the models used to develop the company's integrated resource plan.

The following pages describe how FPL develops each component of the long-term forecast, including sales, NEL, and peak loads. Consistent with past forecasts, the primary drivers in developing these forecasts include population growth, economic conditions, electric prices, weather, and energy-efficiency codes and standards. Also consistent with past forecasts, the current forecasts are 50% probability (P50) forecasts. This means the forecasts are designed so there is an equal probability of the actuals coming in below the forecast as there is of the actuals coming in above the forecasts -- *i.e.*, a 50% probability that the actual load will be on either side of the forecasted load.

The projections for the national and Florida economies are obtained from IHS Markit, a leading economic forecasting firm. Population projections also are obtained from IHS Markit to ensure an internal consistency between these key forecast drivers. Using statistical models, these inputs are quantified and qualified in terms of their impact on the future demand for electricity.

Weather is always a key factor that affects FPL's energy sales and peak demand. FPL developed the following weather variables for use in its forecasting models:

1. Cooling degree-hours based on thresholds set at 72^o Fahrenheit (F) and 68^o F, and Winter heating degree-days based on thresholds set at 62^o F and 66^o F. The maximum temperature on the peak day and the build-up of cooling degree-hours two days prior to the peak are used to forecast Summer peaks.
2. The minimum temperature on the peak day is used to forecast Winter peaks.

FPL uses the cooling degree-hours and winter heating degree-days to capture the changes in the electric usage of weather-sensitive appliances, such as air conditioners and electric space heaters. Quadratic terms are added for both heating degree-days and cooling degree-hours to further calibrate the relationship between temperature and load.

FPL creates a composite hourly temperature profile using hourly temperatures across FPL's service territory. Miami, Ft. Myers, Daytona Beach, and West Palm Beach are the locations where temperatures are obtained. In developing the composite hourly profile, these regional temperatures are weighted by regional energy sales. FPL uses the resulting composite temperature to derive projected cooling and heating degree-hours and heating degree-days. Similarly, FPL uses composite temperature and hourly profiles of temperatures to calculate the weather variables used in the Summer and Winter peak models.

II.B. Comparison of FPL's Current and Previous Load Forecasts

FPL's current load forecast reflects long-term growth rates comparable to those presented in its 2018 Site Plan. Four primary factors drive the current load forecast: 1) projected population growth, 2) the performance of Florida's economy, 3) energy prices, and 4) energy-efficiency codes and standards. The combined impact of these factors results in growth rates that are comparable over the forecast horizon to those presented in FPL's 2018 Site Plan.

FPL's customer forecast is based on recent population projections and the actual levels of customer growth experienced historically. Population projections are derived from IHS Markit's September 2018 forecast. The forecasted growth rates are generally consistent with population growth rates utilized in FPL's 2018 Site Plan. On a percentage basis, the projected rates of population growth are expected to be comparable with recent growth rates. The absolute increases in population are projected to be significant. The state's population surpassed 21 million people in 2017 and is expected to approach 24 million by the end of 2028. Overall, the state's population is expected to increase by 2.7 million people from the beginning of 2019 through 2028.

The growth in FPL's customer accounts is expected to mirror the overall level of population growth in the state. From the beginning of 2019 through 2028, the total number of customer accounts is projected to increase at an annual rate of 1.1%, resulting in a cumulative increase of nearly 620,000 customer accounts. In December 2018, FPL's total number of customer accounts surpassed 5 million. By 2028, FPL expects the total to exceed 5.6 million.

The economic projections incorporated into FPL's load forecast are provided by IHS Markit. Consistent with the projection in FPL's 2018 Site Plan, IHS Markit is projecting moderately positive income growth and positive increases in employment levels over the 10-year forecast horizon. Consistent with past projections, economic growth is expected to moderate somewhat over the longer term.

Estimates of savings from energy-efficiency codes and standards are developed by ITRON, a leading expert in this field. These estimates include savings from federal and state energy-efficiency codes and standards, including the 2005 National Energy Policy Act, the 2007 Energy

Independence and Security Act, and savings resulting from the use of compact fluorescent bulbs and light-emitting diodes (LEDs).[5] The impact of these savings began in 2005, and their cumulative impact on the Summer peak is expected to reach 4,771 MW by 2028, the equivalent of an approximately 15% reduction in what the forecasted Summer peak load for 2028 would have been without these energy-efficiency codes and standards. The cumulative impact on NEL from these savings is expected to reach 11,752 GWh over the same period. This represents a decrease of approximately 8.4% in the forecasted NEL for 2028.

Consistent with the forecast presented in FPL's 2018 Site Plan, the total growth projected for the ten-year reporting period of this document is significant. The Summer peak is projected to rise to 27,363 MW by 2028, an increase of 4,146 MW over the 2018 actual Summer peak. Likewise, NEL is projected to reach 127,543 GWh in 2028, an increase of 5,096 GWh from the actual 2018 value.

II.C. Long-Term Sales Forecasts

FPL developed long-term forecasts of electricity sales for the major revenue classes that are adjusted to match the NEL forecast. Based on relationships between NEL, delivered sales, and billed sales, the total billed sales forecast can be derived from the NEL forecast. This billed sales forecast, derived from total NEL, is matched to the sum of the revenue by class sales forecast. This is accomplished by adjusting residential and commercial sales proportionately based on the difference between sales derived from total NEL and the sum of the revenue by class sales before any adjustments are made, such as electric vehicles or private solar.

The results of these sales forecasts for the years 2019 through 2028 are presented in Schedules 2.1 - 2.3, which appear at the end of this chapter. Econometric models are developed using the statistical software package MetrixND. The methodologies used to develop energy sales forecasts for each jurisdictional revenue class and NEL forecast are outlined below.

1. Residential Sales

FPL estimates residential electric usage per customer by using an econometric model. Residential sales are a function of the following variables: cooling degree-hours and heating degree-days, weighted real per capita income, and the four-month average of real electric price increases over time. FPL forecasts residential energy sales by multiplying the projected residential use per customer by the projected number of residential customers.

[5] Note that in addition to the fact that these energy-efficiency codes and standards lower the forecasted load, these standards also lower the potential for energy-efficiency gains that might otherwise be available through utility DSM programs.

2. Commercial Sales

FPL also uses econometric models to develop its commercial sales forecast. The commercial class is forecast using four separate models, based on customer size, including: commercial lighting accounts, small accounts (less than 20 kW of demand), medium accounts (21 kW to 499 kW of demand), and large accounts (demand of 500 kW or higher). Commercial sales are driven by economic and weather variables. Specifically, the small commercial sales model utilizes the following variables:

- Total Florida housing starts
- Cooling degree-hours
- Lag of small commercial sales
- Autoregressive term.

The medium commercial sales model utilizes the following variables:

- Florida real per capita income weighted by the percent of the population that is employed
- Cooling degree-hours
- Lag of medium commercial sales
- Autoregressive term.

The large commercial sales model utilizes the following variables:

- Florida non-agricultural employment
- Cooling degree-hours
- Autoregressive term.

Finally, the commercial lighting sales model utilizes the following variables:

- Florida non-agricultural employment
- Autoregressive term.

3. Industrial Sales

FPL forecasts industrial class sales using three separate models that are based on customer size. The industrial class is comprised of four distinct groups: 1) small accounts (less than 20 kW of demand), 2) medium accounts (21 kW to 499 kW of demand), 3) large accounts (demands of 500 kW or higher), and 4) industrial lighting sales.

The small industrial sales model utilizes the following variables:

- Cooling degree-hours and heating degree-hours
- Gross State product per employee

- Autoregressive term.

The medium industrial sales model utilizes an exponential smoothing model. The large industrial sales model also utilizes an exponential smoothing model. Industrial lighting sales are also included in industrial sales.

4. Railroad and Railways Sales and Street and Highway Sales

The Railroad and Railway class consists solely of Miami-Dade County's Metrorail system. The projections for railroad and railways sales are based on a historical moving average.

FPL develops the forecast for Street and Highway sales by first developing a trended use-per-customer value, then multiplying this value by the number of forecasted customers.

5. Other Public Authority Sales

This class consists of a sports field rate schedule (which is closed to new customers) and one government account. The forecast for this class is based on its historical usage characteristics.

6. Total Sales to Ultimate Customer

FPL sums the sales forecasts by revenue class to produce a total sales forecast.

7. Sales for Resale

Sales for resale (wholesale) customers are composed of municipalities and/or electric co-operatives. 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. FPL's load forecast includes wholesale loads served under full- and partial-requirements contracts that provide other utilities all, or a portion of, their load requirements at a level of service equivalent to FPL's own native load customers. There are currently ten customers in this class: Florida Keys Electric Cooperative, Lee County Electric Cooperative, New Smyrna Beach, Wauchula, Winter Park, Homestead, Quincy, Moore Haven, Florida Public Utilities Company, and Seminole Electric Cooperative.[6]

Since May 2011, FPL has provided service to the Florida Keys Electric Cooperative under a long-term, full-requirements contract. FPL previously served the Florida Keys under a partial-

[6] FPL continues to evaluate the possibility of serving the electrical loads of other entities at the time this Site Plan is being prepared. Because these possibilities are still being evaluated, the load forecast presented in this Site Plan does not include these potential loads.

requirements contract. The sales to Florida Keys Electric Cooperative are based on customer-supplied information and historical coincidence factors.

Lee County contracted with FPL for FPL to supply a portion of the Lee County load through 2013, then to serve the entire Lee County load beginning in 2014. This contract began in January 2010 and is projected to continue through 2033 with an option to extend the contract through 2053. Forecasted NEL for Lee County is based on customer-supplied information and historical usage trends.

FPL sales to New Smyrna Beach began in February 2014. The contract is projected to continue through December 2021. Under a separate contract, additional sales to New Smyrna Beach began in July 2017 and are also projected to continue through December 2021.

FPL's sales to Wauchula began in October 2011. The contract is projected to continue through December 2021.

Sales to Winter Park began in January 2014. The contract is projected to continue through December 2019.

FPL sales to Homestead began in August 2015. The contract is projected to continue through December 2024.

Sales to Quincy began in January 2016. The contract is projected to continue through December 2023.

Sales to Moore Haven began in July 2016. The contract is projected to continue through December 2025.

Sales to Florida Public Utilities Company began in January 2018. The contract is projected to continue through December 2024.

FPL sales to Seminole Electric Cooperative are based on delivery of 200 MW that began in June 2014 and is projected to continue through May 2021.

II.D. Net Energy for Load (NEL)

FPL uses a daily econometric model to produce a NEL per-customer forecast. The inputs to the model include both Florida real per capita income weighted by the percentage of the population that is employed and electric price. The model also includes daily weather variables, such as cooling degree-hours, heating degree-days, and the square of these terms. In addition, the model includes a variable for energy-efficiency codes and standards, a dummy variable for weekends/holidays, and variables to account for the impact of Hurricane Irma in 2017. There are also autoregressive terms in the model.

FPL uses the real price increase to capture the impact of electric prices on usage. The energy-efficiency variable is included to capture the impacts from major energy-efficiency codes and standards, including those associated with the 2005 National Energy Policy Act, the 2007 Energy Independence and Security Act, and savings resulting from the use of compact fluorescent bulbs and LEDs. The estimated impact from these codes and standards includes engineering estimates and any resulting behavioral changes. The impact of these savings began in 2005 and their cumulative impact on NEL is expected to reach 11,752 GWh by 2028. This represents an approximately 8.4% reduction in what the forecasted NEL for 2028 would have been absent these codes and standards. From the end of 2018, the incremental reduction through 2028 is expected to be 5,151 GWh.

FPL makes an adjustment for the impact of incremental private solar projected to be added after August 2018. The adjustment to the forecast due to private solar is expected to reduce the NEL forecast by 870 GWh by 2028. FPL also adjusted the forecast for the additional load projected to be added after August 2018 from new plug-in electric vehicles. This resulted in a projected increase of approximately 1,259 GWh by the end of the ten-year reporting period. FPL further adjusted the forecast for the incremental load projected to be added after December 2018 from FPL's economic development riders. This incremental load is projected to grow to 516 GWh before leveling off in 2022.

As a result of FPL's acquisition of the City of Vero Beach electric system (COVB transaction), which closed on December 17, 2018, an adjustment is made for the additional load resulting from this acquisition. The incremental load over the 10-year reporting period of this Site Plan is expected to reach 798 GWh. A final adjustment is made for wholesale-requirements contracts to include load not otherwise reflected in FPL's historical data as a result of new, modified, or expanded wholesale contracts. This incremental load is projected to add 4,618 GWh in 2028.

FPL develops the NEL forecast by first multiplying the NEL per-customer forecast by the projected total number of customers, then adjusting the forecasted results for the expected changes in load resulting from private solar, plug-in electric vehicles, FPL's economic development riders, incremental load from the COVB transaction, and wholesale requirements contracts. After the NEL forecast is determined, FPL computes total billed sales using a historical ratio of sales to NEL. FPL then adjusts the sales by class forecasts (discussed previously) to match the total billed sales. The forecasted NEL values from the beginning of 2019 through 2028 are presented in Schedule 3.3, which appears at the end of this chapter.

II.E. System Peak Forecasts

The rate of absolute growth in peak load in the FPL system has been a function of the size of the customer base, varying weather conditions, projected economic conditions, and energy-efficiency codes and standards. FPL developed the peak forecast models to capture these behavioral relationships. In addition, FPL's peak forecast also reflects changes in load expected from private solar, the expected number of plug-in electric vehicles, FPL's economic development riders, the COVB transaction, and wholesale requirements contracts.

The savings from energy-efficiency codes and standards incorporated into the peak forecast include the impacts from the 2005 National Energy Policy Act, the 2007 Energy Independence and Security Act, and the use of compact fluorescent light bulbs (CFLs) and LEDs. The impact from these energy-efficiency standards began in 2005, and their cumulative impact on the Summer peak is expected to reach 4,771 MW by 2028. This reduction includes engineering estimates and any resulting behavioral changes.

The cumulative 2028 impact from these energy-efficiency codes and standards effectively reduces FPL's Summer peak for that year by approximately 15%. From the end of 2018, FPL projects the incremental impact on the Summer peak from these energy-efficiency codes and standards will be a reduction of 1,870 MW through 2028.

FPL also adjusted the peak forecast for the additional load estimated from private solar, plug-in electric vehicles, FPL's economic development riders, and the COVB transaction. The impact from plug-in electric vehicles is projected to be an increase of approximately 457 MW in the Summer and 229 MW in the Winter by the end of 2028. The impact from FPL's economic development riders is projected to grow to 66 MW in the Summer peak and 61 MW in the Winter peak before leveling off in 2022. The COVB transaction is projected to add 164 MW to the Summer peak and 167 MW to the Winter peak by 2028. The incremental impact of private solar results in an expected decrease of approximately 220 MW in the Summer and a negligible reduction in the Winter by the end of the 10-year reporting period of this Site Plan.

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 2019 through 2028 are presented at the end of this chapter in Schedules 3.1 and 3.2, and in Chapter III in Schedules 7.1 and 7.2.

1. System Summer Peak

FPL develops the Summer peak forecast using an econometric model. The variables included in the model are Florida real per capita income, cooling degree-hours two days prior to the peak day, the maximum temperature on the day of the peak, a variable for energy-efficiency codes and standards, and a dummy variable for the year 2005. The model also includes autoregressive terms. The model is based on the Summer peak contribution per customer multiplied by the total number of customers. This product is then adjusted to account for the expected changes in loads resulting from private solar, plug-in electric vehicles, FPL's economic development riders, the COVB transaction, and wholesale requirements contracts to derive FPL's system Summer peak.

2. System Winter Peak

Like the system Summer peak model, this model also is an econometric model. The model consists of a weather-related variable, the minimum temperature on the peak day and a trend variable. The model also includes an autoregressive term. The model output is adjusted for the expected changes in loads resulting from private solar, plug-in electric vehicles, FPL's economic development riders, the COVB transaction, and wholesale requirements contracts.

3. Monthly Peak Forecasts

The forecasting process for monthly peaks begins with two assumptions. First, the forecasted annual Summer peak is assumed to occur in the month of August, which historically has accounted for more annual Summer peaks than any other month. Second, the forecasted annual Winter peak is assumed to occur in the month of January, which historically has accounted for more annual Winter peaks than any other month. Then the remaining monthly peaks are forecasted based on the historical relationship between the monthly peaks and the annual Summer peak.

II.F. Hourly Load Forecast

FPL produces forecasted values for system hourly load for the period 2019 through 2028 using a system load forecasting program called MetrixLT. This model uses years of historical FPL hourly system load data to develop load shapes. The model generates a projection of hourly load values based on these load shapes and the forecast of monthly peaks and energy.

II.G. Uncertainty

Uncertainty is inherent in the load forecasting process. This uncertainty can result from a number of factors, including unexpected changes in consumer behavior, structural shifts in the economy, and fluctuating weather conditions. Large weather fluctuations, in particular, can result in significant deviations between actual and forecasted peak demands. The load forecast is based on average expected or normal weather conditions. An extreme 90% probability (P90) cold weather event, however, can add an additional 2,600 MW or more to the Winter peak, and an extreme P90 hot weather event can add an additional 800 MW to the Summer peak.

In order to address uncertainty in the forecasts of aggregate peak demand and NEL, FPL first evaluates the assumptions underlying the forecasts. FPL takes a series of steps to evaluate the input variables, including comparing projections from different sources, identifying outliers in the series, and assessing the series' consistency with past forecasts. As needed, FPL reviews additional factors that may affect the input variables.

Uncertainty is also addressed in the modeling process. Econometric models generally are used to forecast the aggregate peak demand and NEL. During the modeling process, FPL scrutinizes the relevant statistics (goodness of fit, F-statistic, P-values, mean absolute deviation (MAD), mean absolute percentage error (MAPE), etc.) to ensure the models adequately explain historical variation. Once a forecast is developed, it is compared with past forecasts. Deviations from past forecasts are examined in light of changes in input assumptions to ensure that the drivers underlying the forecast are thoroughly understood. Finally, FPL compares forecasts of aggregate peak demand and NEL with the actual values as they become available. An ongoing process of variance analyses is performed. To the extent the variance analyses identify large unexplained deviations between the forecast and actual values, FPL may consider revisions to the econometric model.

FPL addresses the inherent uncertainty in load forecasting in different ways in regard to FPL's overall resource planning and operational planning work. With respect to FPL's resource planning work, the company's utilization of a 20% total reserve margin criterion, a Loss-of-Load-Probability (LOLP) criterion of 0.1, and a 10% generation-only reserve margin (GRM) criterion are designed to maintain reliable electric service for FPL's customers in light of forecasting (and other) uncertainty. In addition, banded forecasts of the projected Summer peak and NEL may be produced based on an analysis of past forecasting variances. A banded forecast for the projected Summer and Winter peak days is developed based on historical weather variations. These bands are then used to develop similar bands for the monthly peaks. A P80 monthly peak forecast is provided to FPL's System Operations group for operational planning purposes.

II.H. DSM

FPL assumes that the effects of its DSM energy-efficiency programs through August 2018 are embedded in the actual usage data for forecasting purposes. In addition, FPL accounts for the following projected DSM MW and MWh impacts as "line item reductions" to the forecasts as part of the IRP process: 1) the impacts of incremental energy efficiency that FPL has implemented in the September 2018 through December 2018 time period, 2) projected impacts from incremental energy efficiency that FPL plans to implement in 2019 in response to FPL's existing DSM Goals that were set for FPL by the FPSC in December 2014, 3) the cumulative and projected incremental impacts of FPL's load management programs through 2019, also in response to FPL's existing DSM Goals, and (4) the projected impacts of incremental energy efficiency and load management for the years 2020-on that are consistent with the DSM levels that FPL is proposing to the FPSC (shortly after this Site Plan is filed) as its DSM Goals for the years 2020 through 2029. After making these adjustments to the load forecast values, the resulting "firm" load forecast as shown in Chapter III in Schedules 7.1 and 7.2., is then used in FPL's IRP work.

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Schedule 2.1
History of Energy Consumption
And Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Rural & Residential			**Commercial**		
Year	Population	Members per Household	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	Average No. of Customers	Average kWh Consumption Per Customer
2009	8,747,845	2.20	53,950	3,984,490	13,540	45,025	501,055	89,860
2010	8,856,113	2.21	56,343	4,004,366	14,070	44,544	503,529	88,464
2011	8,987,159	2.23	54,642	4,026,760	13,570	45,052	508,005	88,685
2012	9,110,811	2.25	53,434	4,052,174	13,187	45,220	511,887	88,340
2013	9,240,853	2.26	53,930	4,097,172	13,163	45,341	516,500	87,786
2014	9,387,788	2.25	55,202	4,169,028	13,241	45,684	525,591	86,919
2015	9,551,613	2.26	58,846	4,227,425	13,920	47,369	532,731	88,916
2016	9,712,367	2.27	58,687	4,284,159	13,699	47,355	540,356	87,637
2017	9,847,290	2.27	58,188	4,338,224	13,413	47,151	547,908	86,056
2018	10,044,057	2.29	59,096	4,391,832	13,456	47,394	553,562	85,616

Historical Values (2009 - 2018):

Col. (2) represents population only in the area served by FPL.

Col. (4) and Col. (7) represent actual energy sales including the impacts of existing conservation.
These values are at the meter.

Col. (5) and Col. (8) represent the annual average of the twelve monthly values.

Schedule 2.1
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	Members per Household	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	Average No. of Customers	Average kWh Consumption Per Customer
2019	10,174,577	2.28	58,968	4,471,015	13,189	47,449	564,969	83,985
2020	10,300,322	2.28	59,574	4,522,372	13,173	47,908	570,200	84,019
2021	10,424,402	2.28	59,925	4,574,840	13,099	48,061	575,064	83,575
2022	10,548,160	2.28	59,997	4,628,249	12,963	48,244	579,723	83,219
2023	10,672,382	2.28	60,056	4,682,418	12,826	48,439	584,173	82,919
2024	10,797,295	2.28	60,733	4,736,733	12,822	48,765	588,621	82,847
2025	10,922,774	2.28	61,231	4,790,834	12,781	48,869	593,186	82,384
2026	11,048,646	2.28	61,827	4,844,905	12,761	49,140	597,655	82,221
2027	11,175,428	2.28	62,469	4,899,066	12,751	49,439	601,952	82,132
2028	11,302,150	2.28	63,265	4,952,818	12,773	49,929	606,231	82,359

Projected Values (2019 - 2028):

Col. (2) represents population only in the area served by FPL.

Col. (4) and Col. (7) represent forecasted energy sales that do not include the impact of incremental conservation.
These values are at the meter.

Col. (5) and Col. (8) represent the annual average of the twelve monthly values.

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Industrial			Railroads & Railways	Street & Highway Lighting	Sales to Public Authorities	Sales to Ultimate Consumers
Year	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	GWh	GWh	GWh
2009	3,245	10,084	321,796	80	422	34	102,755
2010	3,130	8,910	351,318	81	431	28	104,557
2011	3,086	8,691	355,104	82	437	27	103,327
2012	3,024	8,743	345,871	81	441	25	102,226
2013	2,956	9,541	309,772	88	442	28	102,784
2014	2,941	10,415	282,398	91	446	24	104,389
2015	3,042	11,318	268,799	92	448	23	109,820
2016	3,059	11,770	259,853	92	447	23	109,663
2017	2,961	11,654	254,103	83	446	41	108,871
2018	3,013	11,601	259,728	80	447	23	110,053

Historical Values (2009 - 2018):

Col. (10) and Col. (13-15) represent actual energy sales including the impacts of existing conservation. These values are at the meter.

Col. (11) represents the annual average of the twelve monthly values.

Col. (16) = Schedule 2.1 Col. (4) + Schedule 2.1 Col. (7) + Col. (10) + Col. (13) + Col. (14) + Col. (15).

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Industrial			Railroads & Railways	Street & Highway Lighting	Sales to Public Authorities	Sales to Ultimate Consumers
Year	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	GWh	GWh	GWh
2019	2,888	12,210	236,495	81	451	24	109,861
2020	2,914	13,231	220,247	80	454	24	110,955
2021	2,939	13,886	211,631	81	456	24	111,486
2022	2,961	14,270	207,515	81	458	24	111,764
2023	2,983	14,503	205,667	81	458	24	112,041
2024	3,004	14,709	204,241	81	458	24	113,065
2025	3,025	14,923	202,725	81	458	24	113,687
2026	3,046	15,043	202,463	81	457	24	114,574
2027	3,065	14,999	204,342	81	455	24	115,533
2028	3,083	14,890	207,076	81	453	24	116,834

Projected Values (2019 - 2028):

Col. (10) and Col.(15) represent forecasted energy sales that do not include the impact of incremental conservation. These values are at the meter.

Col. (11) represents the annual average of the twelve monthly values.

Col. (16) = Schedule 2.1 Col. (4) + Schedule 2.1 Col. (7) + Col. (10) + Col. (13) + Col. (14) + Col. (15).

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

(1) Year	(17) Sales for Resale GWh	(18) Utility Use & Losses GWh	(19) Net Energy For Load GWh	(20) Average No. of Other Customers	(21) Total Average Number of Customers
2009	1,155	7,393.55	111,303	3,439	4,499,067
2010	2,049	7,870	114,475	3,523	4,520,328
2011	2,176	6,950	112,454	3,596	4,547,051
2012	2,237	6,403	110,866	3,645	4,576,449
2013	2,158	6,713	111,655	3,722	4,626,934
2014	5,375	6,204	115,968	3,795	4,708,829
2015	6,610	6,326	122,756	3,907	4,775,382
2016	6,623	5,334	121,619	3,994	4,840,279
2017	6,406	5,470	120,747	4,100	4,901,886
2018	6,790	5,604	122,447	4,334	4,961,330

Historical Values (2009 - 2018):

Col. (19) represents actual energy sales including the impacts of existing conservation.

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18). Historical NEL includes the impacts of existing conservation and agrees to Col. (5) on schedule 3.3. Historical GWH, prior to 2011, are based on a fiscal year beginning 12/29 and ending 12/28. The 2011 value is based on 12/29/10 to 12/31/11. The 2012-2018 values are based on calendar year.

Col. (20) represents the annual average of the twelve monthly values.

Col. (21) = Schedule 2.1 Col. (5) + Schedule 2.1 Col. (8) + Schedule 2.2 Col. (11) + Col. (20).

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

(1) Year	(17) Sales for Resale GWh	(18) Utility Use & Losses GWh	(19) Net Energy For Load GWh	(20) Average No. of Other Customers	(21) Total Average Number of Customers
2019	5,842	5,397	121,100	4,607	5,052,800
2020	5,907	5,422	122,284	4,798	5,110,601
2021	5,473	5,411	122,370	4,989	5,168,778
2022	5,177	5,389	122,331	5,179	5,227,422
2023	5,246	5,394	122,680	5,371	5,286,465
2024	5,315	5,484	123,864	5,562	5,345,624
2025	5,238	5,515	124,440	5,753	5,404,696
2026	5,301	5,555	125,430	5,942	5,463,545
2027	5,374	5,613	126,520	6,133	5,522,150
2028	5,447	5,659	127,941	6,325	5,580,264

Projected Values (2019 - 2028):

Col. (19) represents forecasted energy sales that do not include the impact of incremental conservation and agrees to Col. (2) on Schedule 3.3.

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18). These values are based on calendar year.

Col. (20) represents the annual average of the twelve monthly values.

Col. (21) = Schedule 2.1 Col. (5) + Schedule 2.1 Col. (8) + Schedule 2.2 Col. (11) + Col. (20).

Schedule 3.1
History of Summer Peak Demand (MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management	(7) Residential Conservation	(8) C/I Load Management	(9) C/I Conservation	(10) Net Firm Demand
2009	22,351	249	22,102	0	981	1,097	811	732	20,558
2010	22,256	419	21,837	0	990	1,181	815	758	20,451
2011	21,619	427	21,192	0	1,000	1,281	821	781	19,798
2012	21,440	431	21,009	0	1,013	1,351	833	810	19,594
2013	21,576	396	21,180	0	1,025	1,417	833	839	19,718
2014	22,935	1,155	21,780	0	1,010	1,494	843	866	21,082
2015	22,959	1,303	21,656	0	878	1,523	826	873	21,255
2016	23,858	1,367	22,491	0	882	1,548	836	888	22,140
2017	23,373	1,393	21,980	0	910	1,560	825	903	21,639
2018	23,217	1,338	21,879	0	866	1,571	866	916	21,485

Historical Values (2009 - 2018):

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) represent actual DSM capabilities starting from January 1988 and are annual (12-month) values except for 2018 values which are through July.

Col.(6) values for 2015-on reflect a hardware communications issue identified in 2015 that was subsequently resolved. A number of participating customers did not respond to FPL's efforts to reach them or refused access to correct the equipment problem at their home. As a result, these customers were removed from the program.

Col. (10) represents a hypothetical "Net Firm Demand" as 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).

Schedule 3.1
Forecast of Summer Peak Demand (MW)

(1) August of Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management*	(7) Residential Conservation	(8) C/I Load Management*	(9) C/I Conservation	(10) Net Firm Demand
2019	24,305	1,505	22,799	0	866	13	921	15	22,489
2020	24,507	1,476	23,031	0	890	17	950	20	22,630
2021	24,668	1,285	23,383	0	914	17	961	20	22,756
2022	24,837	1,226	23,611	0	938	17	972	20	22,889
2023	25,173	1,239	23,935	0	962	17	983	20	23,190
2024	25,583	1,247	24,336	0	986	17	994	20	23,565
2025	25,939	1,202	24,737	0	1,010	17	1,006	20	23,886
2026	26,380	1,221	25,159	0	1,034	17	1,017	20	24,291
2027	26,867	1,245	25,622	0	1,058	17	1,028	20	24,743
2028	27,363	1,251	26,111	0	1,082	17	1,039	20	25,204

Projected Values (2019 - 2028):

Col. (2) - Col. (4) represent FPL's forecasted peak and does not include incremental conservation, cumulative load management, or incremental load management.

Col. (5) - Col. (9) represent cumulative load management, and incremental conservation and load management. All values are projected August values.

Col. (8) represents FPL's Business On Call, CDR, CILC, and Curtailable programs/rates.

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).

* Res. Load Management and C/I Load Management include MW values of load management from Lee County and FKEC whose loads FPL serves.

Schedule 3.2
History of Winter Peak Demand (MW)

(1) Year	(2) Total	(3) Firm Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management	(7) Residential Conservation	(8) C/I Load Management	(9) C/I Conservation	(10) Net Firm Demand
2009	20,081	207	19,874	0	881	666	676	285	18,524
2010	24,346	500	23,846	0	895	687	721	291	22,730
2011	21,126	383	20,743	0	903	717	723	303	19,501
2012	17,934	382	17,552	0	856	755	722	314	16,356
2013	15,931	348	15,583	0	843	781	567	326	14,521
2014	17,500	890	16,610	0	828	805	590	337	16,083
2015	19,718	1,329	18,389	0	822	835	551	346	18,345
2016	16,941	1,087	15,854	0	742	858	570	352	15,629
2017	17,074	1,098	15,976	0	759	861	577	364	15,738
2018	19,109	1,262	17,847	0	750	864	588	369	17,771

Historical Values (2009 - 2018):

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. For year 2011, the actual winter peak occurred in December of 2010.

Col. (5) - Col. (9) for 2006 through 2018 represent actual DSM capabilities starting from January 1988 and are annual (12-month) values.

Col.(6) values for 2015-on reflect a hardware communications issue identified in 2015 that was subsequently resolved. A number of participating customers did not respond to FPL's efforts to reach them or refused access to correct the equipment problem at their home. As a result, these customers were removed from the program.

Col. (10) represents a hypothetical "Net Firm Demand" as 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).

Schedule 3.2
Forecast of Winter Peak Demand (MW)

(1) January of Year	(2) Total	(3) Firm Wholesale	(4) Retail	(5) Interruptible	(6) Res. Load Management*	(7) Residential Conservation	(8) C/I Load Management*	(9) C/I Conservation	(10) Net Firm Demand
2019	19,530	1,238	18,292	0	724	3	635	12	18,156
2020	19,904	1,162	18,743	0	744	8	664	23	18,466
2021	20,264	1,146	19,118	0	765	8	669	23	18,800
2022	20,255	842	19,413	0	785	8	674	23	18,765
2023	20,528	853	19,675	0	806	8	679	23	19,012
2024	20,775	864	19,911	0	827	8	684	23	19,234
2025	20,932	794	20,137	0	848	8	689	23	19,364
2026	21,150	794	20,356	0	868	8	695	23	19,557
2027	21,374	796	20,578	0	889	8	700	23	19,755
2028	21,623	799	20,824	0	910	8	705	23	19,978

Projected Values (2019 - 2028):

Col. (2) - Col. (4) represent FPL's forecasted peak and does not include incremental conservation, cumulative load management, or incremental load management.

Col. (5) - Col. (9) represent cumulative load management, and incremental conservation and load management. All values are projected January values.

Col. (8) represents FPL's Business On Call, CDR, CILC, and Curtailable programs/rates.

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).

* Res. Load Management and C/I Load Management include MW values of load management from Lee County and FKEC whose loads FPL serves.

Schedule 3.3
History of Annual Net Energy for Load (GWh)
(All values are "at the generator" values except for Col (8))

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Net Energy For Load without DSM GWh	Residential Conservation GWh	C/I Conservation GWh	Actual Net Energy For Load GWh	Sales for Resale GWh	Utility Use & Losses GWh	Total Billed Retail Energy Sales (GWh)	Load Factor(%)
2009	115,844	2,345	2,196	111,303	1,155	7,394	102,755	56.8%
2010	119,220	2,487	2,259	114,475	2,049	7,870	104,557	58.7%
2011	117,460	2,683	2,324	112,454	2,176	6,950	103,327	59.4%
2012	116,083	2,823	2,394	110,866	2,237	6,403	102,226	58.9%
2013	117,087	2,962	2,469	111,655	2,158	6,713	102,784	59.1%
2014	121,621	3,125	2,529	115,968	5,375	6,204	104,389	57.7%
2015	128,556	3,232	2,568	122,756	6,610	6,326	109,820	61.0%
2016	127,481	3,254	2,608	121,619	6,623	5,334	109,663	58.0%
2017	126,680	3,278	2,655	120,747	6,406	5,470	108,871	59.0%
2018	128,465	3,300	2,718	122,447	6,790	5,604	110,053	60.2%

Historical Values (2009 - 2018):

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. (5).

Col. (3) & Col. (4) are DSM values starting in January 1988 and are annual (12-month) values. The values represent the total GWh reductions experienced each year.

Col. (8) is the Total Retail Billed Sales. The values are calculated using the formula: Col. (8) = Col. (5) - Col. (6) - Col. (7). These values are at the meter.

Col. (9) is calculated using Col. (5) from this page and Col. (2), "Total", from Schedule 3.1 using the formula: Col. (9) = ((Col. (5)*1000) / ((Col. (2) * 8760)
Adjustments are made for leap years.

Schedule 3.3
Forecast of Annual Net Energy for Load (GWh)
(All values are "at the generator"values except for Col (8))

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Forecasted Net Energy For Load without DSM GWh	Residential Conservation GWh	C/I Conservation GWh	Net Energy For Load Adjusted for DSM GWh	Sales for Resale GWh	Utility Use & Losses GWh	Forecasted Total Billed Retail Energy Sales w/o DSM GWh	Load Factor(%)
2019	121,100	19	22	121,059	5,842	5,397	109,861	56.9%
2020	122,284	28	32	122,225	5,907	5,422	110,955	56.8%
2021	122,370	28	32	122,310	5,473	5,411	111,486	56.6%
2022	122,331	28	32	122,271	5,177	5,389	111,764	56.2%
2023	122,680	28	32	122,621	5,246	5,394	112,041	55.6%
2024	123,864	28	32	123,804	5,315	5,484	113,065	55.1%
2025	124,440	28	32	124,381	5,238	5,515	113,687	54.8%
2026	125,430	28	32	125,370	5,301	5,555	114,574	54.3%
2027	126,520	28	32	126,461	5,374	5,613	115,533	53.8%
2028	127,941	28	32	127,881	5,447	5,659	116,834	53.2%

Projected Values (2019 - 2028):

Col. (2) represents Forecasted Net Energy for Load and does not include incremental DSM from 2019 - on. The Col. (2) values are extracted from Schedule 2.3, Col(19). The effects of conservation implemented through 2018 are incorporated into the load forecast values in Col. (2).

Col. (3) & Col. (4) are forecasted values of the reduction on sales from incremental conservation from Jan 2019 - on and are mid-year (6-month) values reflecting DSM signups occurring evenly thoughout each year.

Col. (5) is the forecasted Net Energy for Load (NEL) after adjusting for impacts of incremental DSM for years 2019 - 2028 using the formula:
Col. (5) = Col. (2) - Col. (3) - Col. (4)

Col. (8) is the Total Retail Billed Sales. The values are calculated using the formula: Col. (8) = Col. (2) - Col. (6) - Col. (7).
These values are at the meter.

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)
	2018 ACTUAL		2019 FORECAST		2020 FORECAST	
	Total Peak Demand	NEL	Total Peak Demand	NEL	Total Peak Demand	NEL
Month	MW	GWh	MW	GWh	MW	GWh
JAN	19,109	8,915	19,530	8,779	19,904	8,846
FEB	17,492	8,446	18,356	7,942	18,509	8,268
MAR	17,887	8,655	18,300	9,083	18,453	9,160
APR	19,348	9,458	19,872	9,435	20,037	9,502
MAY	19,595	10,113	21,715	10,706	21,896	10,750
JUN	22,254	11,283	23,172	11,309	23,365	11,422
JUL	22,528	12,123	23,582	12,092	23,779	12,193
AUG	23,217	12,236	24,305	12,207	24,507	12,280
SEP	23,187	11,794	22,765	11,249	22,955	11,344
OCT	21,781	11,276	21,417	10,534	21,596	10,599
NOV	19,649	9,396	18,819	8,854	18,976	8,925
DEC	18,088	8,751	18,079	8,910	18,230	8,995
Annual Values:		**122,447**		**121,100**		**122,284**

Col. (3) annual value shown is consistent with the value shown in Col.(5) of Schedule 3.3.

Cols. (4) - (7) do not include the impacts of cumulative load management, incremental utility conservation, and incremental load management.

Cols. (5) and Col. (7) annual values shown are consistent with forecasted values shown in 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 utilizes its well-established, integrated resource planning (IRP) process, in whole or in part as dictated by analysis needs, to determine: (i) the magnitude and timing of needed resources, and (ii) the type of resources that should be added. This section describes FPL's basic IRP process. It also discusses some of the key assumptions, in addition to a new load forecast discussed in the previous chapter, which FPL used in developing the resource plan presented in this Site Plan.

Four Fundamental Steps of FPL's Resource Planning:

The four fundamental steps to FPL's resource planning are:

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 (*e.g.*, identify competing options and resource plans);

Step 3: Evaluate the competing options and resource plans in regard to system economics and non-economic factors; and,

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

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

Overview of FPL's IRP Process

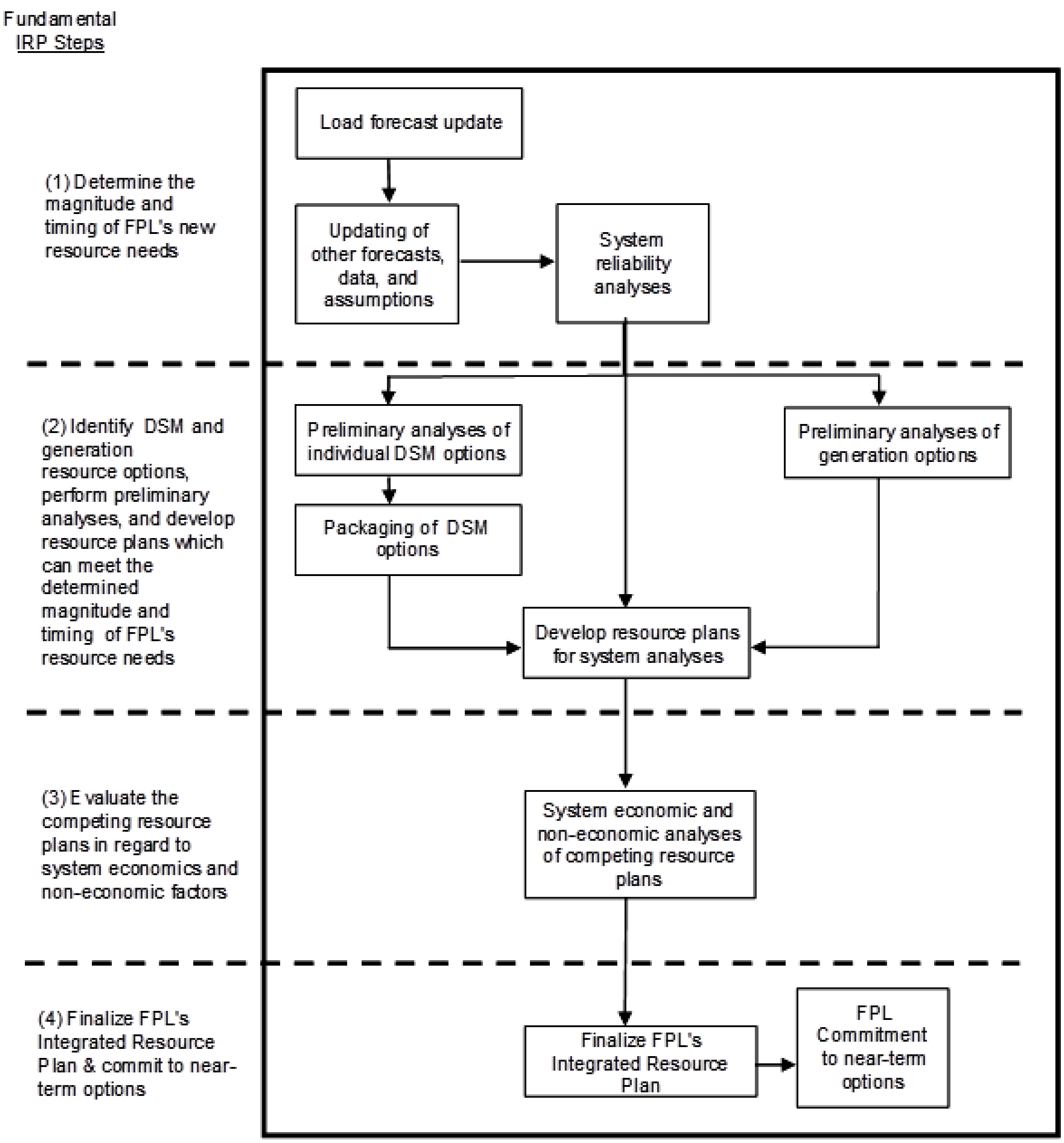

Figure III.A.1: Overview of FPL's IRP Process

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

The first of the four resource planning steps is essentially a determination of the amount and timing of capacity or megawatts (MW) of load reduction, new capacity additions, or a combination of both, which are needed to maintain and/or enhance system reliability. This step is often referred to as a reliability assessment for the utility system.

This analysis 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 throughout other aspects of FPL's resource planning process. Examples of this new information include, but are not limited to: delivered fuel price projections, current financial and economic assumptions, current power plant capability and operating assumptions, and current demand side management (DSM) demand and energy reduction assumptions.

FPL also includes key sets of projections regarding three specific types of resources: (1) FPL unit capacity changes, (2) firm capacity power purchases, and (3) DSM implementation.

Key Assumptions Regarding the Three Types of Resources:

The first set of assumptions, FPL unit capacity changes, is based on current projections of new generating capacity additions and planned retirements of existing generating units. In FPL's 2019 Site Plan, there are six (6) types of projected capacity changes through the 10-year reporting time frame of this document. These changes are listed below in general chronological order:

1) Additional Solar Energy Generation:

   In early 2018, FPL requested FPSC approval for the construction, and recovery of expenditures for, 4 new photovoltaic (PV) facilities of 74.5 MW (nameplate, AC)[7] each under the Solar Base Rate Adjustment (SoBRA) mechanism agreed to in the settlement of FPL's 2016 base rate case. The FPSC granted the requested approval on December 26, 2018 in Order PSC-2018-0610-FOF-EI. These facilities went into commercial service on January 31, 2019. This brings the current amount of PV generation on FPL's system to approximately 1,153 MW.

   In addition, on March 1, 2019, FPL filed with the FPSC a request to construct, and recover expenditures for, an additional 298 MW of PV facilities in 2020 under the SoBRA recovery mechanism. Information regarding the siting of these 2020 solar additions is presented in

[7] Unless otherwise noted, all references to PV MW values refer to nameplate, AC ratings.

Chapter IV. In this 2019 Site Plan, FPL is also projecting that, beginning in the year 2020 through 2028 (the last year in the reporting period of this Site Plan), it will have installed approximately 8,053 MW of PV generation on its system (which will be in addition to its existing 75 MW of solar thermal). These PV additions were reflected in FPL's "30 by 30" announcement in January 2019 which detailed FPL's plans to add 30 million solar PV panels cost-effectively by the year 2030. The projected annual PV additions are approximately: 450 MW in 2021, 900 MW in 2022, 900 MW in 2023, 750 MW in 2024, 1,050 MW in 2025, 900 MW in 2027, and 1,200 MW in 2028.

A significant amount of this additional solar, particularly in the early years beginning in 2020, is projected to be added under FPL's new SolarTogether-An FPL Shared Solar Program (SolarTogether). FPL filed for FPSC approval of this new program on March 13, 2019. The FPSC's decision regarding FPL's request will help determine how much of this annual PV rollout will be supplied under the SolarTogether program. In addition, if the FPSC approves the SolarTogether program as filed, then it is likely that the annual PV additions listed above would change and PV would be installed more quickly.

2) <u>Retirement of Another Two 800 MW Steam Generating Units:</u>
As discussed in FPL's 2018 Site Plan, FPL retired its Martin Units 1 and 2 on December 31, 2018. These units were each older steam generating units of approximately 800 MW each that had been in operation for approximately 40 years. The units were relatively inefficient units in regard to their ability to convert fuel into electricity. As a result, they were projected to no longer be cost-effective to operate for FPL's customers.

FPL now plans to also retire another two older, 800 MW steam generating units for the same reason. These units, Manatee Units 1 & 2, are projected to be retired in late 2021 or early 2022.

3) <u>CT upgrades at existing CC plant sites:</u>
In order to at least partially offset the firm capacity capability that will be lost due to the above-mentioned retirement of older, less efficient steam units, FPL will be upgrading the CT components in more of its CC units through the year 2021. These upgrades are projected to result in increased Summer capacity of approximately 887 MW by the end of that year. Information regarding the specific units, timing, and magnitude of these upgrades is presented in Schedule 8 in Chapter III.

4) <u>New Combined Cycle (CC) Capacity at the Okeechobee Site:</u>

At approximately the same time this site plan is being filed, a new CC generating unit at FPL's Okeechobee site will begin operation. In 2015, FPL sought a determination of need from the Florida Public Service Commission (FPSC) for approval to build the Okeechobee CC unit. The FPSC issued its approval for the new unit in a final order (Order No.PSC-16-0032-FOF-EI) issued on January 19, 2016. The new CC unit is projected to add approximately 1,778 MW (Summer) of highly fuel-efficient, around-the-clock generation capacity.

5) <u>Modernization of the Existing Lauderdale Plant Site:</u>

FPL is in the process of further modernizing its power generation fleet by the recent retirement of the two existing CC units, with a total Summer MW rating of 884 MW, at its existing Lauderdale plant site. FPL will now build a new, modern 2x1 CC unit by mid-2022 at the same site. The new CC unit will provide 1,163 Summer MW of around-the-clock generation capacity in the Southeastern Florida region. This modernization is projected to significantly reduce costs to FPL's customers and also to significantly enhance reliability both for FPL's entire system and for the Southeastern Florida region of that system which consists of Miami-Dade and Broward counties. In addition, due to the new CC unit's high level of fuel efficiency, the modernization is projected to reduce the amount of natural gas used on FPL's system, and reduce system emissions of SO_2, NO_x, and CO_2, compared to what these projections would have been if the existing Lauderdale generating units had remained in operation.

The FPSC voted unanimously to approve the new unit on March 1, 2018 and the final order was issued on March 19, 2018 (Order No. PSC-2018-0150-FOF-EI). The Governor and Cabinet, acting as the Siting Board, approved the final permitting for this efficient new unit in late 2018.

6) <u>Battery Storage Additions:</u>

Actual and projected costs for battery storage have continued to decline, thus helping to make batteries more competitive with other resource options. As a result, FPL's current resource plan that is presented in this Site Plan includes approximately 469 MW of battery storage in late 2021 or early 2022. In addition, FPL's on-going resource planning work will continue to evaluate the use of battery storage in other applications including combining batteries with utility-scale PV facilities.

The second set of assumptions involves other firm capacity power purchases. These assumptions are generally consistent with those presented in FPL's 2018 Site Plan.

On January 5, 2017, with mutual consent of the parties involved and FPSC approval (in Order PSC-16-0506-FOF-EI), FPL acquired the equity interests in coal-based PPA with Indiantown Cogeneration L.P. (ICL), including the coal-fueled ICL PPA and the underlying asset from which it received firm capacity and energy. FPL has no current plans to run ICL in 2019 and currently plans to terminate this PPA by the end of the 1st Quarter of 2020 upon retirement of the senior debt in the project.

The current remaining projected firm capacity purchases are from a combination of utility and independent power producers. Included in these purchases is one short-term utility-based purchase from the Orlando Utilities Commission. Details for this and other purchases, including the annual total capacity values for FPL's purchases, are presented in Chapter I in Tables I.B.1, I.B.2, and I.B.3. These purchased capacity amounts were incorporated in FPL's resource planning work.

The third set of assumptions involves a projection of the amount of additional DSM that FPL anticipates it will implement annually over the ten-year reporting period of 2019 through 2028, the reporting years for this Site Plan. In 2014, the Florida Public Service Commission (FPSC) set DSM Goals for FPL and other Florida utilities that addressed the years 2015 through 2024. By the end of 2019, the FPSC is scheduled to set new DSM Goals for FPL (and these other Florida utilities) that address the years 2020 through 2029. This goal-setting process is one in which each utility proposes new DSM Goals that are based on current analyses of the utility's future resource needs and projected economic viability of future DSM additions. FPL and the other Florida utilities are scheduled to present their proposed DSM Goals to the FPSC in filings that will occur approximately two weeks after this Site Plan is filed.

In this Site Plan, FPL is projecting incremental DSM for 2019 that complies with the existing DSM Goals for 2019. In addition, this Site Plan projects incremental DSM levels for 2020 through 2028 that are consistent with the annual DSM levels that FPL is proposing as its new DSM Goals. The FPSC is scheduled to finalize FPL's DSM Goals in late 2019. Next year, FPL's 2020 Site Plan will reflect the DSM Goals that are ultimately set for FPL by the FPSC. FPL's DSM efforts are further discussed in section III.D of this chapter.

The Three Reliability Criteria Used to Determine FPL's Projected Resource Needs:

FPL applies these key assumptions, plus the other updated information described above, in the first fundamental step: determining the magnitude and timing of FPL's future resource needs. This determination is accomplished through system reliability analyses. Until 2014, FPL's reliability analyses were based on dual planning criteria, including a minimum peak-period total reserve margin of 20% (FPL applies this criterion to both Summer and Winter peaks) and a maximum loss-of-load probability (LOLP) of 0.1 day per year. Both criteria are commonly used throughout the utility industry. Beginning in 2014, FPL began utilizing a third reliability criterion: a 10% generation-only reserve margin (GRM).

These reliability criteria utilize two basic types of methodologies: deterministic and probabilistic. The calculation of excess firm capacity at the annual system peaks (reserve margin) is a 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 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 that 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 that also can be counted on to run 90% of the time. Probabilistic methods can also account for 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 reliability of a generating system, and a number of them are used to perform system reliability analyses. Among the most widely used is loss-of-load probability (LOLP), which FPL utilizes. Simply stated, LOLP is an index of how well a generating system may be able to meet its firm 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 terms of the projected probability that a utility will be unable to meet its entire firm load at some point during a year. The probability of not being able to meet the firm load is calculated for each day of the year using the daily peak hourly load. These daily probabilities are then summed to develop an annual probability value. This annual probability value is commonly expressed as "the number of days per year" that the system firm load could not be met. FPL's standard for LOLP, which is commonly accepted throughout the industry, is a maximum of 0.1 day per year. This analysis requires a more complicated calculation methodology than 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.

In 2010, FPL's integrated resource planning work examined a then-projected fundamental change in FPL's resource plans. This change was a significant shift in the mix of generation and DSM resources that could result in FPL becoming increasingly reliant on DSM resources, rather than generation resources, to maintain system reliability. As discussed in several subsequent FPL Site Plans, extensive analyses examined this shift from a system reliability perspective.

In these analyses, FPL developed a key new metric: a generation-only reserve margin (GRM). This GRM metric reflects reserves that would be provided only by actual generating resources. The GRM value is calculated by setting to zero all incremental energy efficiency (EE) and load management (LM), plus all existing LM, to derive another useful version of a reserve margin calculation. The resulting GRM value provides an indication of the respective roles that DSM and generation are projected to play each year as FPL maintains its 20% Summer and Winter “total” reserve margins (which account for both generation and DSM resources).

These analyses examined the two types of resources, DSM and Supply options, from both an operational and a resource planning perspective. Based on these analyses, FPL concluded that resource plans for its system with identical total reserve margins, but different GRM values, are not equal in regard to system reliability. A resource plan with a higher GRM value is projected to result in more MW being available to system operators on adverse peak load days, and in lower LOLP values, than a resource plan with a lower GRM value, even though both resource plans have an identical total reserve margin value. Therefore, in 2014 FPL implemented a minimum GRM criterion of 10% as a third reliability criterion in its resource planning process. This key criterion has to be met in all years beginning with the year 2019.

The 10% minimum Summer and Winter GRM criterion augments the other two reliability criteria that FPL uses: the 20% total reserve margin criterion for Summer and Winter and the 0.1 day/year LOLP criterion. All three reliability criteria are useful to identify the timing and magnitude of the resource need because of the different perspectives the three criteria provide. In addition, the GRM criterion is particularly useful in providing direction regarding the mix of generation (combined cycle, solar, etc.) and DSM resources that should be added to maintain and enhance FPL’s system reliability.

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, preliminary economic screening analyses of new capacity options that are identical, or virtually identical, in certain key characteristics may be conducted to determine what type of new capacity option appears to be the most competitive on FPL’s system. Preliminary analyses also can help identify capacity size (MW) values, projected construction/permitting schedules, and operating parameters and costs. Similarly, preliminary economic screening analyses of new DSM options and/or evaluation of existing DSM options are often conducted in this second fundamental IRP step.

FPL typically utilizes a production cost model, a Fixed Cost Spreadsheet, and/or an optimization model to perform the preliminary economic screening of generation resource options. For the preliminary economic screening analyses of DSM resource options, FPL typically uses its DSM CPF model, which is an FPL spreadsheet model utilizing the FPSC's approved methodology for performing preliminary economic screening of individual DSM measures and programs. A years-to-payback screening test based on a two-year payback criterion is also used in the preliminary economic screening of individual DSM measures and programs. Then, as the focus of DSM analyses progresses from analysis of individual DSM measures to the development of DSM portfolios, FPL typically uses two additional models. One is FPL's non-linear programming (NLP) model that is used to analyze the potential for lowering system peak loads through additional load management/demand response capability. The other model that FPL typically utilizes is its linear programming (LP) model, which FPL uses to develop DSM portfolios.

FPL then typically "packages" the individual new resource options, both Supply options and DSM portfolios, emerging from these preliminary economic screening analyses into different resource plans that 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 projected new resource needs are met. The creation of these competing resource plans is typically carried out using spreadsheet and/or 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: Evaluate the Competing Options and Resource Plans in Regard to System Economics and Non-Economic Factors:

At the completion of fundamental Steps 1 and 2, the most viable new resource options have been identified and these resource options have been combined into a number of resource plans that each meet the magnitude and timing of FPL's resource needs. The stage is set for evaluating these resource options and resource plans in system economic analyses that aim to account for all of the impacts to the FPL system from the competing resource options/resource plans. FPL typically utilizes the UPLAN production cost model and a Fixed Cost Spreadsheet, and/or the

EGEAS optimization model, to perform the system economic analyses of resource plans. FPL may also use other spreadsheet models to further analyze the resource plans.

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 general objective of minimizing FPL's projected levelized system average electric rate (*i.e.*, a Rate Impact Measure or RIM methodology). In analyses in which the DSM contribution has already been determined through the same IRP process and/or FPSC approval, and therefore the only competing options are new generating units and/or purchase options, comparisons of the impacts of competing resource plans on both electricity rates and system revenue requirements will yield identical outcomes in regard to the relative rankings of the resource options being evaluated. Consequently, the competing options and resource plans in such cases can be evaluated on a system cumulative present value revenue requirement (CPVRR) basis.

FPL also includes other factors in its evaluation of resource options and resource plans. Although these factors may have an economic component or impact, they are often discussed in quantitative but non-economic terms, such as percentages, tons, etc., rather than in terms of dollars. FPL often refers to these factors as "system concerns or factors," which include (but are not limited to) maintaining/enhancing fuel diversity in the FPL system and maintaining a regional balance between load and generating capacity, particularly in the Southeastern Florida region that consists of Miami-Dade and Broward counties. In conducting the evaluations needed to determine which resource options and resource plans are best for FPL's system, the non-economic evaluations are conducted with an eye to whether the system concern is positively or negatively impacted by a given resource option or resource plan. These and other factors are discussed later in this chapter in section III.C.

Step 4: Finalizing FPL's Current Resource Plan

The results of the previous three fundamental steps are typically used to develop FPL's current resource plan. The current resource plan presented in the 2019 Site Plan is summarized in the following section.

III.B Projected Incremental Resource Changes in the Resource Plan

FPL's current projection of major changes in its resources, including both utility-owned generation and PPAs, for the years 2019 through 2028 is summarized in Table ES-1 in the Executive Summary. The changes are presented in terms of Summer firm capacity values. Although this table does not specifically identify the impacts of projected DSM additions on FPL's resource needs and resource plan, FPL's projected DSM additions are consistent with FPL's existing DSM Goals in 2019, and with FPL's proposed DSM Goals from 2020-on, as discussed earlier. Thus, DSM impacts are fully accounted for in the resource plan in this Site Plan.

The generation/capacity additions include, in approximate chronological order: (i) the FPL Okeechobee Clean Energy Center CC unit in Okeechobee County in 2019; (ii) SoBRA, SolarTogether, and other PV additions beginning in 2020 through 2028; (iii) capacity upgrades at a number of FPL's existing CC units through 2021; (iv) the planned modernization of the existing Lauderdale power plant site in mid-2022 with the new DBEC Unit 7; (iv) large scale (approximately 469 MW) battery storage in late 2021 or early 2022, and, vi) an unsited CC unit in 2026.

FPL notes that, with the exception of the 2019 Okeechobee CC, the 2020 SoBRA and SolarTogether PV, the CC capacity upgrades, and the 2022 Dania Beach Clean Energy Center (DBEC) Unit 7, no final decisions are needed at this time, nor have yet been made, regarding other resource additions shown in the 2019 Site Plan. This is particularly relevant to resource additions shown for years increasingly further out in time after 2019. Consequently, those resource additions are more prone to future change.

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III.C Discussion of the Resource Plan and Issues Impacting FPL's Resource Planning Work

In considering the resource plan presented in this Site Plan, it is useful to note that there are at least six (6) significant factors that either influenced the current resource plan or which may result in future changes. These factors are discussed below (in no particular order).

1. **Maintaining a Balance Between Load and Generation in Southeastern Florida:**
   An imbalance exists between regionally installed generation and regional peak load in Southeastern Florida (Miami-Dade and Broward counties). As a result of that imbalance, a significant amount of energy required in the Southeastern Florida region during peak periods is provided by importing energy through the transmission system from generating units located outside the region, operating less efficient generating units located in Southeastern Florida out of economic dispatch, or a combination of the two. FPL's prior planning work concluded that, as load inside the region grows, additional installed generating capacity and/or load reduction in this region, or additional installed transmission capacity capable of delivering more electricity from outside the region, would be required to address this imbalance.

Partly because of the lower transmission-related costs resulting from their location in or adjacent to Southeastern Florida, at least five relatively recent capacity addition decisions (Turkey Point Unit 5, West County Energy Center Units 1, 2, & 3, and the modernization of the Port Everglades plant) were determined to be the most cost-effective options to meet FPL's then projected capacity needs. In addition, FPL has added increased capacity at its existing two nuclear units at Turkey Point as part of the nuclear capacity uprates project.

The balance between load and generation in the Southeastern Florida region will be further enhanced by two other additions. First, the Corbett-Sugar-Quarry (CSQ) transmission line will be added in mid-2019. This new line will significantly increase FPL's ability to import capacity and energy into the region from generators located outside of the region. Second, the modernization of the existing Lauderdale plant site, which will result in an additional 279 MW of generation capacity in Southeastern Florida from the new DBEC Unit 7 in 2022, will significantly assist in maintaining and enhancing a balance between load and generation in this important region.

2. Maintaining/Enhancing System Fuel Diversity:

In 2018, FPL used natural gas to generate approximately 75% of the total electricity it delivered to its customers. By 2028, due largely to significant solar additions, the percentage of FPL's electricity generated by natural gas is projected to decrease to approximately 60% based on the resource plan presented in this Site Plan. Due to this still significant reliance on natural gas, as well as evolving environmental regulations, FPL is continually seeking opportunities to economically maintain and enhance the fuel diversity of its system, both in regard to type of fuel and fuel delivery, with due consideration given to system economics.

In 2007, following express direction by the FPSC, FPL sought approval from the FPSC to add two new advanced technology coal units to its system in 2013 and 2014, respectively. However, these units were not approved. Since that time, coal units have ceased to be a viable generation option for a number of reasons which include: (i) environmental regulations regarding coal units, (ii) increased availability of natural gas, (iii) much lower forecasted costs for natural gas, and (iv) increased economic competitiveness of PV generation. Consequently, FPL does not believe that new advanced technology coal units are currently viable fuel diversity enhancement options in Florida at this time.

Therefore, FPL has focused on: (i) cost-effectively adding solar energy and nuclear energy generation to enhance fuel diversity, (ii) diversifying the sources of natural gas, (iii) diversifying the gas transportation paths used to deliver natural gas to FPL's generating units, and (iv) using natural gas more efficiently.

Solar Energy: Assuming that annual additions of PV will be cost-effective from 2021-on, this 2019 Site Plan projects that FPL will have a total of approximately 8,053 MW of PV generation by the end of 2028. Such a level of PV generation would represent about 33% of FPL's current total generation. However, the impact of PV's contribution in terms of actual energy produced (MWh) is smaller. Because solar energy can only be generated during daylight hours, and is impacted by clouds, rain, etc., it has a relatively low capacity factor (approximately 26% to 30%) for PV in the state of Florida). As a result, FPL's solar additions would be projected to supply approximately 15% of the total energy (MWh) that FPL delivers in 2028 (as shown in Schedule 6.2 later in this chapter).[8]

Based on the resource plan presented in this 2019 Site Plan, it is projected that the cleanest energy sources -- low-emission natural gas, zero-emission nuclear, and zero-emission solar – will provide approximately 97% of all energy produced by FPL in 2028 with zero-emission nuclear and solar alone providing approximately 38% of all energy produced by FPL in 2028.

Nuclear Energy: In 2008, the FPSC approved the need to increase capacity at FPL's four existing nuclear units and authorized the company to recover project-related expenditures that were approved as a result of annual nuclear cost recovery filings. FPL successfully completed this nuclear capacity uprate project. Approximately 520 MW of additional nuclear capacity was delivered by the project, which represents an increase of approximately 30% more incremental capacity than was originally forecasted when the project began. FPL's customers are benefitting from lower fuel costs and reduced system emissions provided by this additional nuclear capacity.

Since June 2009, FPL has worked to obtain all of the licenses, permits, and approvals that are necessary to construct and operate two new nuclear units at its Turkey Point site in the future. These licenses, permits, and approvals will provide FPL with the opportunity to construct these nuclear units for as long as 20 years from the time the licenses and permits are granted, and then to operate the units for at least 40 years thereafter. The Combined Operating Licenses (COL) for the prospective new Turkey Point Units 6 & 7 were granted by the Nuclear Regulatory Commission (NRC) in April 2018. FPL is currently pausing before deciding whether to seek FPSC approval to move forward with construction of the new nuclear units. FPL intends to incorporate into that decision the construction experience of two nuclear units currently being constructed by Georgia Power at its Vogtle site, and similar units being

[8] As a rule of thumb for FPL's system, each 500 MW of PV added to FPL's system will account for slightly less than 1% of FPL's total energy delivery.

developed in China. As a result, the earliest possible in-service dates for Turkey Point 6 & 7 are beyond the 2019 through 2028 time period addressed in this docket.

In addition, on January 30, 2018, FPL filed a request with the NRC for a Subsequent License Renewal (SLR) for FPL's existing Turkey Point nuclear Units 3 & 4. The SLR requests approval to extend the operating licenses for these two nuclear units by 20 years from the current license expiration dates in 2032 and 2033, respectively. The NRC is now in the process of reviewing FPL's SLR request. A decision is not expected until mid-2020, at the earliest.

Nuclear capacity remains an important consideration in FPL's resource planning, and this Site Plan continues to present the Turkey Point site as a Preferred Site for the new and/or continuing nuclear capacity and energy.

<u>Natural gas sourcing and delivery:</u> In 2013, the FPSC approved FPL's contracts to bring more natural gas into FPL's service territory through a third natural gas pipeline system into Florida. The process by the pipeline companies to obtain approval from the Federal Energy Regulatory Commission (FERC) for the new pipeline system, consisting of the Sabal Trail and Florida Southeast Connection pipelines, culminated in receiving a FERC certificate of approval on February 2, 2016. The new pipeline system has been constructed and is now in service. This pipeline is necessary to fuel the FPSC-approved Okeechobee CC unit. The new pipeline system utilizes an independent route that will result in a more reliable, economic, and diverse natural gas supply for FPL customers and the State of Florida.

<u>Using natural gas more efficiently:</u> FPL has sought ways to utilize natural gas more efficiently for a number of years. In 2008, FPL received approval from the FPSC to modernize the existing Cape Canaveral and Riviera Beach plant sites with new, highly efficient CC units, which replaced the former steam generating units on each of those sites. The Cape Canaveral modernization went into service in April 2013, and the Riviera Beach modernization entered service in April 2014. On April 9, 2012, FPL received FPSC approval to proceed with a similar modernization project at the Port Everglades site. That new generating unit went into service on April 1, 2016. All three of these modernized sites have the capability to receive water-borne delivery of Ultra-Low Sulfur Diesel (ULSD) oil as a backup fuel.

Similarly, the modernization of the Lauderdale site in 2022 will also enhance FPL's ability to utilize natural gas more efficiently. The modernization project has begun with the recent retirement of two older, relatively fuel-inefficient generating units, Lauderdale Units 4 & 5. Once these units are removed, a very fuel-efficient new CC unit will be added at the same site: DBEC Unit 7. FPL projects that the total amount of natural gas that will be used on its system will be reduced with the new CC unit compared to what the usage would have been if the two older units had continued to operate.

In the future, FPL will continue to identify and evaluate alternatives that may maintain or enhance system fuel diversity. In this regard, FPL also is maintaining the ability to utilize heavy oil and/or ULSD oil at existing units that have that capability. In addition, the new CTs that FPL installed at its existing Lauderdale and Fort Myers sites in 2016, which replaced older GT units that were retired, have the capability to burn either natural gas or ULSD oil.

3. **Maintaining a Balance Between Generation and DSM Resources for System Reliability:** As mentioned earlier in Section III. A, FPL utilizes a 10% Generation-Only Reserve Margin (GRM) to ensure that system reliability is not negatively affected by an overreliance on non-generation resources. This GRM reliability criterion was developed as a result of extensive analyses – which have been described in detail in prior FPL Site Plans – of FPL's system from both resource planning and system operations perspectives. The potential for overreliance upon non-generating resources for system reliability remains an important resource planning issue for FPL and is one that FPL will continue to examine in its ongoing resource planning work.

4. **The Significant Impacts of Federal and State Energy-Efficiency Codes and Standards:** As discussed in Chapter II, FPL's load forecast includes projected impacts from federal and state energy-efficiency codes and standards. The magnitude of energy efficiency that FPL currently projects to deliver to its customers through these codes and standards is significant.

FPL currently projects a cumulative Summer peak reduction impact of 4,771 MW from these codes and standards beginning in 2005 (the year the National Energy Policy Act was enacted) and extending through 2028 (*i.e.*, the last year in the 2019 through 2028 reporting time period for this Site Plan) compared to what the projected load would have been without the codes and standards. The projected incremental Summer MW impact from these codes and standards during the 2019 through 2028 reporting period of this Site Plan is the equivalent of an approximately 15% reduction compared to what the projected load would have been without the codes and standards. In regard to energy, the cumulative reduction attributed to the impact of the codes and standards from 2005 to 2028 is projected to reach 11,752 GWh since 2005. Included in this projection is a reduction of approximately 8.4% during the 2019 through 2028 reporting period. All of these projections show the significant impact of these energy-efficiency codes and standards.

In addition to lowering FPL's load forecast from what it otherwise would have been, and thus serving to lower FPL's projected load and resource needs, this projection of efficiency from the codes and standards also affects FPL's resource planning in another way: it lowers the potential for utility DSM programs to cost-effectively deliver energy efficiency. This effect was taken into account by the FPSC when FPL's existing DSM Goals were set in December 2014. This projected effect has again been accounted for this year in the development of FPL's proposed DSM Goals for the years 2020 through 2029 that are reflected in the resource plan presented in this Site Plan.

5. **The Increased Competitiveness of Battery Storage**: The costs of battery storage have continued to decline thus making it a more competitive resource option, particularly in combination with utility-scale solar facilities[9]. In the resource plan presented in this Site Plan, FPL is projecting battery storage as a firm capacity addition for the first time with approximately 469 MW of new battery storage being added in late 2021 or early 2022. In addition, FPL is actively evaluating a variety of other potential battery storage uses on its system through a variety of pilot projects. A discussion of the battery pilot projects through which FPL hopes to learn how to best utilize these storage options as their costs continue to decrease is found later in this Chapter in Section III F.

6. **Projected changes in CO_2 regulation and associated compliance costs:**
Since 2007, FPL has evaluated potential carbon dioxide (CO_2) regulation and/or legislation and has included projected compliance costs for CO_2 emissions in its resource planning work. However, there always has been an unavoidable level of uncertainty regarding the timing and magnitude of the cost impacts of the potential regulation/legislation. The forecast of potential CO_2 compliance costs that FPL used in its 2018 resource planning work was lower than forecasts that had been used in prior years. In 2019, the forecasted compliance costs remain relatively low. Projected lower compliance costs are due to a number of factors projected for the Southeastern region of the U.S. including Florida. These factors include at least the following: lower forecasted growth rates in electricity usage; lower forecasted costs of natural gas; retirements of existing coal units; and increasing implementation of renewable energy sources, including solar.

[9] Battery storage equipment that is paired with a solar plant is eligible for the federal Investment Tax Credit (ITC)—currently 30% of the eligible capital expenditure amount.

III.D Demand Side Management (DSM)

FPL has sought and implemented cost-effective DSM programs since 1978, and cost-effective DSM has been a key focus of the company's resource planning work for 40 years. During that time, FPL's DSM programs have included many energy efficiency and load management programs and initiatives.

FPL's current/existing DSM Goals were established by the FPSC in December 2014. These DSM Goals address the years 2015 through 2024. The FPSC's DSM Goals Order No. PSC-14-0696-FOF-EU recognized that two important market forces were affecting the feasibility and cost-effectiveness of utility DSM programs. The first of these is the growing impact of federal and state energy-efficiency codes and standards. As discussed first in Chapter II, and earlier in Section III.C above, the projected incremental impacts of these energy-efficiency codes and standards during the 2019 through 2028 time period has significantly lowered FPL's projected load and resource needs. In addition, these energy-efficiency codes and standards significantly reduce the potential for cost-effective utility DSM programs.

The second market force is FPL's lower generating costs with which DSM must compete. There are several reasons for these lower generating costs. One of these is that, as fuel costs are lowered, the benefit that is realized by each kWh of energy reduced by DSM is also lowered. In other words, the benefit from DSM's kWh reductions has been reduced from what it had been when Florida previously established DSM Goals. For example, FPL last set DSM Goals in 2014, and prior to that, DSM Goals were set in 2009. Current projections for natural gas costs for the 10-year period addressed in this Site Plan are approximately 75% lower than natural gas cost forecasts were in 2009.

Furthermore, the current natural gas forecasts are approximately 50% lower than the natural gas cost forecasts used in the most recent 2014 DSM Goals docket. These lower forecasted natural gas costs are very beneficial for FPL's customers because they result in lower fuel costs and lower electric rates. At the same time, lower fuel costs also result in lower potential fuel savings benefits from the kWh reductions of DSM measures. These lowered benefit values result in DSM being less cost-effective than it was in the past.

Another reason for the lower generating costs and the resultant decline in the cost-effectiveness of utility DSM on the FPL system is the steadily increasing efficiency with which FPL generates electricity. FPL's generating system has steadily become more efficient in regard to its ability to generate electricity using less fossil fuel. For example, the FPL system is projected to use almost

30% less fossil fuel to generate a MWh in 2019 than it did in 2001. Again, this is very good for FPL's customers because it helps to significantly lower fuel costs and electric rates. However, the improvements in generating system efficiency affect DSM cost-effectiveness in much the same way as lower forecasted fuel costs: both lower the fuel costs of energy delivered to FPL's customers. Therefore, the improvements in generating system efficiency further reduce the potential fuel savings benefits from the kWh reduction impacts of DSM, thus further lowering potential DSM benefits and DSM cost-effectiveness.

Although FPL's current/existing DSM Goals are appropriately lower due to these market forces, the projected cumulative effect of FPL's DSM programs to-date is truly significant. After accounting for the 20% total reserve margin requirements, the Summer MW reductions from FPL's DSM programs from their inception through the end of 2018 represent the equivalent of avoiding the need to build approximately fifteen (15) 400 MW-sized new power plants.

In August 2015, the FPSC approved FPL's DSM Plan (Order No. PSC-15-0331-PAA-EG, consummated by Order No. PSC-15-0384-CO-EG), which describes the approach FPL would take to meet its current/existing DSM Goals. The DSM Plan consists of fourteen (14) DSM programs and research and development efforts that are described below:

FPL Current DSM Programs and Research & Development Efforts

1. **Residential Home Energy Survey (HES)**

   This program educates customers on energy efficiency and encourages implementation of recommended practices and measures, even if these are not included in FPL's DSM programs. The HES is also used to identify potential candidates for other FPL DSM programs.

2. **Residential Load Management (On Call)**

   This program allows FPL to turn off certain customer-selected appliances using FPL-installed equipment during periods of extreme demand, capacity shortages or system emergencies.

3. **Residential Air Conditioning**

   This program encourages customers to install high-efficiency central air-conditioning systems.

4. **Residential Ceiling Insulation**

   This program encourages customers to improve their home's thermal efficiency.

5. **Residential New Construction (BuildSmart®)**

   This program encourages builders and developers to design and construct new homes to achieve BuildSmart® certification and move towards ENERGY STAR® qualifications.

6. **Residential Low Income**

   This program assists low income customers through FPL-conducted Energy Retrofits and state Weatherization Assistance Provider (WAP) agencies.

7. **Business Energy Evaluation (BEE)**

   This program educates customers on energy efficiency and encourages implementation of recommended practices and measures, even if these are not included in FPL's DSM programs. The BEE is also used to identify potential candidates for other FPL DSM programs.

8. **Commercial/Industrial Demand Reduction (CDR)**

   This program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages or system emergencies.

9. **Commercial/Industrial Load Control (CILC)**

   This program allows FPL to control customer loads of 200 kW or greater during periods of extreme demand, capacity shortages or system emergencies. It was closed to new participants as of December 31, 2000. It is available to existing participants who had entered into a CILC agreement as of March 19, 1996.

10. **Business On Call**

    This program allows FPL to turn off customers' direct expansion central electric air-conditioning units using FPL-installed equipment during periods of extreme demand, capacity shortages or system emergencies.

11. **Business Heating, Ventilating and Air Conditioning (HVAC)**

    This program encourages customers to install high-efficiency HVAC systems.

12. **Business Lighting**

    This program encourages customers to install high-efficiency lighting systems.

13. Business Custom Incentive (BCI)

This program encourages customers to install unique high-efficiency technologies not covered by other FPL DSM programs.

14. Conservation Research & Development (CRD) Project

This project consists of research studies designed to: identify new energy-efficient technologies; evaluate and quantify their impacts on energy, demand and customers; and, where appropriate and cost-effective, incorporate an emerging technology into a DSM program.

By the end of 2019, the FPSC is scheduled to set new DSM Goals for FPL, and for the other Florida utilities subject to FEECA, that address the years 2020 through 2029. This goal-setting process is one in which each utility proposes new DSM Goals that are based on current analyses of the utility's future resource needs and projected economics of future DSM additions. FPL and the other Florida utilities are scheduled to present their proposed DSM Goals to the FPSC in filings that will occur shortly after this Site Plan is filed.

In this Site Plan, FPL is projecting incremental DSM for the year 2019 that complies with the existing DSM Goals for 2019. In addition, this Site Plan projects incremental DSM levels for 2020-on that are consistent with the annual DSM levels that FPL is proposing as its new DSM Goals. The FPSC is scheduled to finalize FPL's DSM Goals for 2020 through 2029 in late 2019. FPL's 2020 Site Plan will reflect the DSM Goals that are ultimately set for FPL by the FPSC. Also in 2020, the FPSC is scheduled to reach a decision regarding FPL's new DSM Plan with which it will meet the newly set DSM Goals.

III.E Transmission Plan

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

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

(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	Levee [1/]	Midway	150	June/2019	500	2598

1/ Final order certifying the corridor was issued in April 1990. Construction of 114 miles is complete and in-service. An additional phase of the Levee-Midway project called the Corbett-Sugar-Quarry (CSQ) line project includes adding a 500 kV line from FPL's Corbett Substation to a new 500 kV section of FPL's existing Sugar Substation and adding an approximately 68 mile 500 kV line from Sugar to FPL's Quarry Substation in Miami-Dade County. The Quarry 500/230 kV Substation is adjacent and connected to FPL's Levee Substation. The CSQ line project is scheduled to be completed by June 2019.

In addition, there will be transmission facilities needed to connect several of FPL's projected generating capacity additions to the system transmission grid. These transmission facilities (described on the following pages) are for the determined and projected PV additions that FPL is adding in 2019 through 2021[10], and for the battery storage that FPL is projecting to complete by late 2021.

The modernization of the Lauderdale site, which will result in a new CC unit, Dania Beach Clean Energy Center Unit 7, in mid-2022 will not require new transmission lines. In addition, sites for other potential PV additions for 2021-on have not yet been definitely determined so no transmission analyses for these additions have been performed.

[10] The in-service dates shown on the following pages for the SolarTogether PV additions assume FPSC approval of this new program as filed and represent the projected earliest dates for these PV installations. As such, the dates for PV additions discussed below may differ somewhat from the PV dates presented in Table ES-1 in the Executive Summary.

III.E.1 Transmission Facilities for the Babcock Preserve Solar Energy Center in Charlotte County

The work required to connect the approximate 74.5 MW (nameplate, AC) Babcock Preserve Solar Energy Center in Charlotte County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Add one 230 kV terminal and 230 kV breaker at FPL's existing Tuckers substation
2. Construct a new single breaker 230 kV substation ("Curry") on the project site.
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to Curry 230 kV Substation.
5. Add relays and other protective equipment.
6. Breaker replacements: None

II. Transmission:

1. Construct approximately 1mile string bus to connect Curry to Tuckers substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.2 Transmission Facilities for the Blue Heron Solar Energy Center in Hendry County

The work required to connect the approximate 74.5 MW (nameplate, AC) Blue Heron Solar Energy Center in Hendry County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 138 kV substation ("Citron") on the project site on the FPL Athens-McCarthy 138 kV line section.
2. Add one 138/34.5 kV main step-up transformer (85 MVA) with a 138 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Citron 138 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Athens-McCarthy 138 kV line into Citron substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.3 Transmission Facilities for the Cattle Ranch Solar Energy Center in DeSoto County

The work required to connect the approximate 74.5 MW (nameplate, AC) Cattle Ranch Solar Energy Center in DeSoto County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Add one 230 kV line switch at FPL's existing Solaris substation
2. Construct a new single breaker 230 kV substation ("Gleam") on the project site.
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to Gleam 230 kV Substation.
5. Add relays and other protective equipment.
6. Breaker replacements: None

II. Transmission:

1. Construct approximately 1.5 miles string bus to connect Gleam to Solaris substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.4 Transmission Facilities for the Northern Preserve Solar Energy Center in Baker County

The work required to connect the approximate 74.5 MW (nameplate, AC) Northern Preserve Solar Energy Center in Baker County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation ("Timber") on the project site approximately 0.7 miles from Wiremill Tap on the FPL Raven-Macedonia (GTC) 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Timber 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Raven-Wiremill section of the Macedonia (GTC) – Raven (FPL) 115 kV line into Timber substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.5 Transmission Facilities for the Sweetbay Solar Energy Center in Martin County

The work required to connect the approximate 74.5 MW (nameplate, AC) Sweetbay Solar Energy Center in Martin County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Holstein") on the project site near the FPL Martin-Indiantown 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Holstein 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Platt-Indiantown section of the Martin-Indiantown 230 kV line into Holstein substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.6 Transmission Facilities for the Twin Lakes Solar Energy Center in Putnam County

The work required to connect the approximate 74.5 MW (nameplate, AC) Twin Lakes Solar Energy Center in Putnam County in the 1st Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation ("Steer") on the project site approximately 1 mile from Manville-Frances section of the Putnam-Bradford 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Steer 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Manville-Frances section of the Putnam-Bradford 115 kV line into Steer substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.7 Transmission Facilities for the Echo River Solar Energy Center in Suwannee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Echo River Solar Energy Center in Suwannee County in the 2nd Quarter of 2020 as part of the 2020 SoBRA PV additions is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation ("Hogan") on the project site approximately 2.6 miles west of the FPL Wellborn substation on the Suwannee (Duke Energy Florida DEF) – Columbia (FPL) 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Hogan 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Wellborn-Live Oak section of the Suwannee (Duke Energy) – Columbia (FPL) 115 kV line into Hogan substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.8 Transmission Facilities for the Hibiscus Solar Energy Center in Palm Beach County

The work required to connect the approximate 74.5 MW (nameplate, AC) Hibiscus Solar Energy Center in Palm Beach County in the 2nd Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Minto") on the project site approximately 1 mile west of FPL's Westlake substation on the Ranch-Corbett 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Minto 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Westlake-Corbett section of the Corbett-Ranch 230 kV line into Minto substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.9 Transmission Facilities for the Okeechobee Solar Energy Center in Okeechobee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Okeechobee Solar Energy Center in Okeechobee County in the 2nd Quarter of 2020 is projected to be:

I. **Substation:** None. Solar PV project to be connected to low-side of Okeechobee Clean Energy Center Combustion Turbine Generator Step-up transformer inside plant, which is connected to Fort Drum 500 kV Substation.

II. **Transmission:** None. Solar PV project to be connected to low-side of Okeechobee Clean Energy Center Combustion Turbine Generator Step-up transformer inside plant, which is connected to Fort Drum 500 kV Substation.

III.E.10 Transmission Facilities for the Southfork Solar Energy Center in Manatee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Southfork Solar Energy Center in Manatee County in the 2nd Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation (“Duette”) on the project site on the FPL Manatee-Keentown 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Duette 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Manatee-Keentown 230 kV line into Duette substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.11 Transmission Facilities for the Egret Solar Energy Center in Baker County

The work required to connect the approximate 74.5 MW (nameplate, AC) Egret Solar Energy Center in Baker County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation (“Claude”) on the project site approximately 2 miles from the FPL Duval-Raven 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Claude 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Duval-Raven 230 kV line into Claude substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.12 Transmission Facilities for the Lakeside Solar Energy Center in Okeechobee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Lakeside Solar Energy Center in Okeechobee County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Nubbin") on the project site on the FPL Martin-Sherman 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Nubbin 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Martin-Sherman 230 kV line into Nubbin substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.13 Transmission Facilities for the Magnolia Springs Solar Energy Center in Clay County

The work required to connect the approximate 74.5 MW (nameplate, AC) Magnolia Springs Solar Energy Center in Clay County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Leno") on the project site approximately 0.1 mile from the Titanium-Green Cove Springs section of the Seminole Plant-Springbank 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Leno 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Titanium-Green Cove Springs section of the Seminole Plant-Springbank 230 kV line into Leno substation on the project site.
2. No additional upgrades are expected to be necessary at this time

III.E.14 Transmission Facilities for the Pelican Solar Energy Center in St. Lucie County

The work required to connect the approximate 74.5 MW (nameplate, AC) Pelican Solar Energy Center in St. Lucie County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new 230 kV substation (“Morrow”) on the project site.
2. Add one 230 kV line switch at Morrow for string bus to Eldora substation
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to Morrow 230 kV Substation.
5. Add relays and other protective equipment.
6. Breaker replacements: None

II. Transmission:

1. Construct approximately 1.25 miles string bus from Eldora 230 kV to Morrow substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.15 Transmission Facilities for the Rodeo Solar Energy Center in DeSoto County

The work required to connect the approximate 74.5 MW (nameplate, AC) Rodeo Solar Energy Center in DeSoto County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new 230 kV substation (Name TBD) on the project site.
2. Add one 230 kV line switch at new substation to connect to Gleam substation (Cattle Ranch Solar Energy Center)
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to new 230 kV Substation.
5. Add relays and other protective equipment.
6. Breaker replacements: None

II. Transmission:

1. Connect new substation line switch via string bus to Gleam substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.16 Transmission Facilities for the Discovery Solar Energy Center in Brevard County

The work required to connect the approximate 74.5 MW (nameplate, AC) Discovery Solar Energy Center in Brevard County in the 4th Quarter of 2020 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation ("Rocket") on the project site on the FPL C5-Barna 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Rocket 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the C5-Barna 115 kV line into Rocket substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.17 Transmission Facilities for the Manatee County Site in Manatee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Manatee County Site in Manatee County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation (TBD) on the project site on the FPL Manatee-Keentown 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to new (TBD) 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Manatee-Keentown 230 kV line into new (TBD) substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.18 Transmission Facilities for the Nassau Solar Energy Center in Nassau County

The work required to connect the approximate 74.5 MW (nameplate, AC) Nassau Solar Energy Center in Nassau County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Crawford") on the project site on the FPL Duval-West Nassau (Georgia Transmission Company, "GTC") section of the Duval-Yulee 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Crawford 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Duval-West Nassau (GTC) section of the Duval-Yulee 230 kV line into Crawford substation (approximately 1 mile).
2. No additional upgrades are expected to be necessary at this time.

III.E.19 Transmission Facilities for the Orange Blossom Solar Energy Center in Indian River County

The work required to connect the approximate 74.5 MW (nameplate, AC) Orange Blossom Solar Energy Center in Indian River County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new 230 kV substation ("Finca") on the project site.
2. Add one 230 kV line switch at Finca bifurcating Eldora-Heritage 230 kV line approximately 1 mile from Eldora
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to Finca 230 kV Substation.
5. Add relays and other protective equipment.
6. Breaker replacements: None

II. Transmission:

1. Bifurcate Eldora-Heritage 230 kV line approximately 1 mile from Eldora at Finca substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.20 Transmission Facilities for the Palm Bay Solar Energy Center in Brevard County

The work required to connect the approximate 74.5 MW (nameplate, AC) Palm Bay Solar Energy Center in Brevard County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation ("Hayward") on the project site on the FPL Glendale-Hield section of the Midway-Malabar 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Hayward 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Glendale-Hield section of the Midway-Malabar 230 kV line into Hayward substation (approximately 2.5 miles).
2. No additional upgrades are expected to be necessary at this time.

III.E.21 Transmission Facilities for the Putnam County Site in Putnam County

The work required to connect the approximate 74.5 MW (nameplate, AC) Putnam County Site in Putnam County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 230 kV substation (TBD) on the project site on the FPL Bradford-Rice 230 kV line.
2. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to new (TBD) 230 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Bradford-Rice 230 kV line into new (TBD) substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.22 Transmission Facilities for the Sabal Palm Solar Energy Center in Palm Beach County

The work required to connect the approximate 74.5 MW (nameplate, AC) Sabal Palm Solar Energy Center in Palm Beach County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new 230 kV substation ("Costa") on the project site.
2. Add one 230 kV line switch at Costa for string bus to Minto substation
3. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
4. Construct 34.5 kV bus to connect the PV array to Costa 230 kV Substation.
5. Add one 230 kV breaker to close ring bus at Minto substation
6. Add relays and other protective equipment.
7. Breaker replacements: None

II. Transmission:

1. Construct approximately 1.5 miles string bus from Minto 230 kV to Costa substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.23 Transmission Facilities for the Trailside Solar Energy Center in St. Johns County

The work required to connect the approximate 74.5 MW (nameplate, AC) Trailside Solar Energy Center in St. Johns County in the 1st Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation (“Moccasin”) on the project site on the FPL Elkton-St. Johns section of the Putnam-St. Johns 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Moccasin 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the Elkton-St. Johns section of the Putnam-St. Johns 115 kV line into Moccasin substation.
2. No additional upgrades are expected to be necessary at this time.

III.E.24 Transmission Facilities for the Union Springs Solar Energy Center in Union County

The work required to connect the approximate 74.5 MW (nameplate, AC) Union Springs Solar Energy Center in Union County in the 1s Quarter of 2021 is projected to be:

I. Substation:

1. Construct a new single bus, two (2) breaker 115 kV substation (“Plum”) on the project site approximately 0.1 mile from the FPL Bradford-Lake Butler section of the Raven-Bradford 115 kV line.
2. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
3. Construct 34.5 kV bus to connect the PV array to Plum 115 kV Substation.
4. Add relays and other protective equipment.
5. Breaker replacements: None

II. Transmission:

1. Loop the FPL Bradford-Lake Butler section of the Raven-Bradford 115 kV line into Plum substation.
2. No additional upgrades are expected to be necessary at this time

III.E.25 Transmission Facilities for Battery Storage in Manatee County

The approximately 409 MW battery storage addition in late 2021 or early 2022 that will be sited in Manatee County does not require any new offsite transmission lines.

III.E.26 Transmission Facilities for the Lauderdale Plant Modernization (Dania Beach Clean Energy Center Unit 7) in Broward County

The Lauderdale Modernization project (Dania Beach Clean Energy Center Unit 7) that is projected to be completed by mid-2022 does not require any new offsite transmission lines.

III.F. Renewable Resources and Storage Technology

Overview:

Even though solar energy-based resource options were generally not economically competitive on FPL's system until the 2016 time frame, FPL has actively been involved in renewable energy resource research and development since the mid-1970s. These activities have been numerous and varied as described below.

FPL's Renewable Energy Efforts Through 2018:

FPL has been the leading Florida utility in examining ways to effectively utilize renewable energy technologies to serve its customers. Since 1976, FPL has been an industry leader in renewable energy research and development and in facilitating the implementation of various renewable energy technologies. FPL's renewable energy efforts through 2018 are briefly discussed in five categories of solar/renewable activities. FPL's plans for new renewable energy facilities from 2019 through 2028 are then discussed in a separate section.

1) Early Research & Development Efforts:

In the late 1970s, FPL assisted the Florida Solar Energy Center (FSEC) in demonstrating the first residential PV system east of the Mississippi River. This PV installation at FSEC's Brevard County location was in operation for more than 15 years and provided valuable information about PV performance capabilities in Florida on both a daily and annual basis. In 1984, FPL installed a second PV system at its Flagami substation in Miami. This 10-kilowatt (kW) system operated for a number of years before it was removed to make room for substation expansion. In addition, FPL maintained a thin-film PV test facility at the FPL Martin Plant Site for a number of years to test new thin-film PV technologies.

2) Demand Side & Customer Efforts:

In terms of utilizing renewable energy sources to meet its customers' needs, FPL initiated the first-ever 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 who chose solar water heaters. Before the program ended (because it was no longer cost-effective), FPL paid incentives to approximately 48,000 customers who installed solar water heaters.

In the mid-1980s, FPL introduced another renewable energy program, FPL's Passive Home Program. This program was created to broadly disseminate information about passive solar building design techniques that are most applicable in Florida's climate. As part of this program, three Florida architectural firms created complete construction blueprints for six passive home designs with the assistance of the FSEC and FPL. These designs and blueprints were available to customers at a low cost. During its existence, the program received a U.S. Department of Energy award for innovation and also led to a revision of the Florida Model Energy Building Code (Code). The Code was revised to incorporate one of the most significant passive design techniques highlighted in the program: radiant barrier insulation.

FPL has continued to analyze and promote PV utilization. These efforts have included PV research, such as the 1991 research project to evaluate the feasibility of using small PV systems to directly power residential swimming pool pumps. FPL's PV efforts also included educational efforts, such as FPL's Next Generation Solar Station Program. This initiative delivered teacher training and curriculum that was tied to the Sunshine Teacher Standards in Florida. The program provided teacher grants to promote and fund projects in the classrooms.

In addition, FPL assists customers interested in installing PV equipment at their facilities. Consistent with Florida Administrative Code Rule 25-6.065, Interconnection and Net Metering of Customer-Owned Renewable Generation, FPL works with customers to interconnect these customer-owned PV systems. Through December 2018, approximately 11,300 customer systems (predominantly residential) have been interconnected. This represents approximately 0.2% of FPL's total number of customers.

In 2009, as part of its DSM Goals decision, the FPSC imposed a requirement for Florida's investor-owned utilities to spend up to a certain capped amount annually to facilitate demand-side solar water heater and PV applications. FPL's cap for these applications was approximately $15.5 million per year for five years. In response to this direction, FPL received approval from the FPSC in 2011 to initiate a solar pilot portfolio consisting of three PV-based programs and three solar water heating-based programs, plus Renewable Research and Demonstration projects. FPL's analyses of the results from these programs since their inception consistently showed that none of these pilot programs was cost-effective for FPL's customers using any of the three cost-effectiveness screening tests used by the State of Florida. As a result, consistent with the FPSC's December 2014 DSM Goals Order No. PSC-14-0696-FOF-EU, these pilot programs expired on December 31, 2015.

3) <u>Supply Side Efforts – Power Purchases:</u>

FPL has facilitated a number of renewable energy projects (facilities which burn bagasse, waste wood, municipal waste, etc.) through power purchase agreements (PPAs). FPL purchases firm capacity and energy, and/or as-available energy, from these types of facilities. For example, FPL has a contract to receive firm capacity from the Solid Waste Authority of Palm Beach (SWA) through April 2032. Tables I.B.1, I.B.2, and I.B.3 in Chapter I provide information regarding both firm and non-firm capacity PPAs from renewable energy facilities.

4) Supply Side Efforts – FPL Facilities:

At the time this Site Plan is filed, FPL has 18 universal solar generating facilities in commercial operation. 17 of these 18 facilities are PV facilities and together they represent approximately 1,153 MW of generation. The other facility is a 75 MW solar thermal facility. Each of these solar facilities is listed below in Table III.F.1.

Table III.F.1: List of FPL Solar Facilities Through Early 2019

	Solar Energy Center	County	Nameplate MW	Type	COD
1	DeSoto	DeSoto	25	Tracking	Oct-09
2	Space Coast	Brevard	10	Fixed	Apr-10
3	Martin	Martin	75	Solar Thermal	Dec-10
4	Babcock	Charlotte	74.5	Fixed	Dec-16
5	Citrus	DeSoto	74.5	Fixed	Dec-16
6	Manatee	Manatee	74.5	Fixed	Dec-16
7	Coral Farms	Putnam	74.5	Fixed	Jan-18
8	Horizon	Alachua / Putnam	74.5	Fixed	Jan-18
9	Indian River	Indian River	74.5	Fixed	Jan-18
10	Wildflower	DeSoto	74.5	Fixed	Jan-18
11	Barefoot Bay	Brevard	74.5	Fixed	Mar-18
12	Blue Cypress	Indian River	74.5	Fixed	Mar-18
13	Hammock	Hammock	74.5	Fixed	Mar-18
14	Loggerhead	St. Lucie	74.5	Fixed	Mar-18
15	Interstate	St. Lucie	74.5	Fixed	Jan-19
16	Miami-Dade	Miami-Dade	74.5	Fixed	Jan-19
17	Sunshine Gateway	Columbia	74.5	Fixed	Jan-19
18	Pioneer Trail	Volusia	74.5	Fixed	Jan-19
Total Nameplate MW =			1,227		

5) Ongoing Research & Development Efforts:

FPL has a “Living Lab” at its Juno Beach office to demonstrate FPL’s solar energy commitment to employees and visitors. FPL currently has approximately 157 kW of PV as part of the Living Lab. Through various Living Lab projects, FPL is able to evaluate multiple solar and storage technologies and applications for the purpose of developing a renewable business model resulting in the most cost-effective and reliable uses for FPL’s customers. FPL plans to continue to expand the Living Lab as new technologies come to market.

FPL has also been in discussions with several private companies on multiple emerging technology initiatives, including ocean current, ocean thermal, hydrogen, fuel cell technology, biomass, biofuels, and energy storage.

In regard to PV's impact on the FPL system, FPL began in 2014 to develop a methodology to determine what firm capacity value at FPL's Summer and Winter peak hours would be appropriate to apply to existing, and potential PV facilities. The potential capacity contribution of PV facilities is dependent upon a number of factors including (but not necessarily limited to): site location, technology, and design, and the total amount of solar that is operating on FPL's system. (Note that the Martin solar thermal facility is a "fuel-substitute" facility, not a facility that provides additional capacity and energy. The solar thermal facility displaces the use of fossil fuel to produce steam on the FPL system when the solar thermal facility is operating.)

Based on the results of its analyses, FPL has concluded that two of its earliest PV facilities can be counted on to contribute certain percentages of their nameplate (AC) ratings (approximately 46% for DeSoto and 32% for Space Coast) as firm capacity at FPL's Summer peak hour (that typically occurs in the 4 p.m. to 5 p.m. hour), but contribute no firm capacity during FPL's Winter peak hour (that typically occurs in the 7 a.m. to 8 a.m. hour).

The three PV facilities that began operation in late 2016 are currently assumed to provide approximately 52% of their nameplate (AC) rating as firm capacity at FPL's Summer peak hour, but no firm capacity during FPL's Winter peak hour. The 8 PV facilities that went into commercial operation in the 1st Quarter of 2018 are projected to have a Summer firm capacity of 54% of their nameplate (AC) rating, but no firm capacity at the time of FPL's Winter peak hour. FPL currently projects that the four PV facilities that went into commercial operation in early 2019 will have a 55% Summer firm capacity rating, but no firm capacity for Winter peak. On-going analyses will determine what firm capacity values are attributed to future PV additions. FPL continues to evaluate and refine its methodology for assigning firm capacity for solar.

FPL's Planned Renewable Energy Efforts for 2019 through 2028:

FPL's plans regarding renewable energy comprise efforts in both universal (utility-scale) solar and customer-focused (distributed) solar. In addition, FPL has significant interest in battery storage. These efforts and plans are summarized below.

1) **Universal Solar:**

In 2009, FPL constructed 110 MW of solar energy facilities including two PV facilities totaling 35 MW and one 75 MW solar thermal facility. From 2009 through 2017, the costs of solar equipment, especially PV equipment, declined significantly and universal (i.e., utility-scale) PV facilities at a number of sites became increasingly competitive economically with more conventional generation options. As a result, FPL added three new PV facilities of approximately 74.5 MW each near the end of 2016. On January 1, 2018, four additional PV facilities of 74.5 MW each, or 298 MW in total, also went into commercial operation. These four PV facilities were added under the Solar Base Rate Adjustment (SoBRA) provision of the Commission's order approving the settlement agreement for FPL's last base rate case in 2016 (Order No. PSC-16-0560-AS-EI).

Four more 74.5 MW PV SoBRA facilities, or 298 MW in total, came into commercial operation on March 1, 2018. On January 31, 2019, four more 74.5 MW PV SoBRA facilities, or 298 MW in total, also began commercial operation. This brings the current amount of PV generation on FPL's system to approximately 1,153 MW.

In addition, on March 1, 2019, FPL filed with the FPSC a request to construct, and recover expenditures for, an additional 298 MW of PV facilities under the SoBRA recovery mechanism. These new PV facilities are projected to begin commercial operation by the 2nd Quarter of 2020. And, as previously discussed, on March 13, 2019, FPL filed for FPSC approval of FPL's new SolarTogether program. If approved, FPL will add a significant amount of new PV facilities under that new program. Information regarding the Preferred and Potential Sites for FPL's solar additions is presented in Chapter IV.

In this 2019 Site Plan, FPL's resource plan shows a total of approximately 8,128 MW of solar by the end of the year 2028. This total value consists of approximately 8,053 MW of PV and 75 MW of solar thermal. FPL's resource planning work will continue to analyze the projected system economics of solar and all other resource options.

2) **FPL Customer-Focused PV Pilot Programs:**

FPL began implementation of two customer-focused PV pilot programs in 2015. The first is a voluntary, community-based, solar partnership pilot to install new solar-powered generating facilities. The program is at least partially funded by contributions from customers who volunteer to participate in the pilot and will not rely on subsidies from non-participating customers. The second program will implement approximately 5 MW of DG PV. The objective of this second program is to collect grid integration data for DG PV and develop operational best practices for addressing potential problems that may be identified. A brief description of these pilot programs follows.

a) **Voluntary, Community-Based Solar Partnership Pilot Program:**

The Voluntary Solar Pilot Program, named FPL SolarNow, provides FPL customers with an additional and flexible opportunity to support development of solar power in Florida. The FPSC approved FPL's request for this three-year pilot program in Order No. PSC-14-0468-TRF-EI on August 29, 2014. The pilot program's tariff became effective in January 2015. The pilot was recently approved for a second extension of an additional year by the FPSC in Order No. PSC-2018-0581-TRF-EI on December 17, 2018 and is now scheduled to end at the close of 2019. This pilot program provides all customers the opportunity to support the use of solar energy at a community scale and is designed to be especially attractive 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. As of the end of 2018, there were 42,654 participants enrolled in the Voluntary Solar Pilot Program. This program has installed 39 projects located in 39 different locations within the FPL service territory. These projects represent approximately 1,359 kW-DC of PV generation.

b) **SolarTogether-An FPL Shared Solar Program(SolarTogether):**

As previously discussed in FPSC Docket No. 20170212-EI, FPL filed a community shared solar program for FPSC approval on March 13, 2019. The program is named SolarTogether-An FPL Shared Solar Program (SolarTogether). This voluntary program offers FPL customers the option to purchase capacity/energy from cost-effective, large scale solar generation facilities. FPL expects the program's final design will not require customers who participate to be bound to a long-term contract or subject to administrative fees or termination penalties. Under this program, participants' monthly electric bills would show both a subscription charge and a direct credit on their electric bills associated with the amount of solar-generated capacity purchased. This shared solar program will leverage the economies of scale of universal solar to deliver long-term savings to both program participants and non-participants.

c) **C&I Solar Partnership Pilot Program:**

This pilot program is conducted in partnership with interested commercial and industrial (C&I) customers over an approximate 5-year period. Limited investments will be made in

PV facilities located at customer sites on selected distribution circuits within FPL's service territory.

The primary objective is to examine the effect of high localized PV penetration on FPL's distribution system and to determine how best to address any problems that may be identified. FPL has installed approximately 3 MW of PV facilities on circuits that experience specific loading conditions to better study feeder loading impacts. Up to an additional 2 MW may be built in 2019 to further expand the understanding of integrating large PV facilities on the FPL system. To further build upon the lessons learned to-date, and to better understand how future solar on distribution circuits may integrate into FPL operations, FPL may consider expanding this pilot to integrate storage (or other firm sources) into the final 2 MW of solar capacity deployed through this partnership program. In addition, FPL is now evaluating the integration of solar into urban areas to test its impact on the distribution system on feeders that are heavily loaded as well as investigate the capabilities of a microgrid.

FPL's Battery Storage Efforts:

Battery storage technology has continued to advance and the costs of storage are projected to continue to decline. As a result, battery storage, particularly in combination with utility-scale solar facilities, has become an economically competitive firm capacity option for FPL's system. The resource plan presented in this Site Plan shows, for the first time, battery storage being added as firm capacity with an approximately 469 MW of battery storage in late 2021 or early 2022. Approximately 409 MW of this battery storage capability is projected to be sited in Manatee County.

In addition, FPL is analyzing the potential of battery storage technology to benefit FPL's customers in other ways. These analyses have been, and are currently, being carried out through implementation of two pilot projects designed to evaluate different potential applications for batteries on FPL's system.

The objectives of the two pilot projects are to identify the most promising applications for batteries on FPL's system and to gain experience with battery installation and operation. This information will position FPL to expeditiously take advantage of battery storage for the benefit of FPL's customers as the economics of the technology continue to improve. For the purpose of discussing these two pilot projects, they will be referred to as the "small scale" and "large scale" storage pilot projects.

1) Small Scale Storage Pilot Projects:

In 2016 and early 2017, FPL implemented approximately 4 MW of battery storage systems, spread across six sites, with the general objective of demonstrating the operational capabilities of batteries and learning how to integrate them into FPL's system. These small storage projects were designed with a distinct set of high-priority battery storage grid applications in mind. These applications include: peak shaving, frequency response, and backup power. In addition, these initial projects were designed to provide FPL with an opportunity to determine how to best integrate storage into FPL's operational software systems and how best to dispatch and/or control the storage systems.

To this end, FPL installed: (i) a 1.5 MW battery in Miami-Dade County primarily for peak shaving and frequency response, (ii) another 1.5 MW battery in Monroe County for backup power and voltage support, (iii) a relocatable 0.75 MW uninterruptible power supply (UPS) battery at the Tennis Center at Crandon Park in Key Biscayne for mitigation of momentary disruptions, and (iv) several smaller kilowatt-scale systems at other locations to study distributed storage reliability applications. All of these projects have been in service for more than 2 years and have yielded valuable information regarding the applications listed above.

2) Large Scale (50 MW) Storage Pilot Project:

The small scale energy storage pilot projects described above are complemented by up to 50 MW of additional battery projects that will be deployed through 2020. These pilot projects were authorized under the Settlement Agreement in FPL's 2016 base rate case. The 50 MW of batteries that will be deployed in this larger pilot project will expand the number of storage applications and configurations that FPL will be able to test, as well as making the scale of deployment more meaningful, given the large size of FPL's system.

The first two storage projects under this pilot involve pairing battery storage with existing universal PV facilities, and these projects went into service in the 1st Quarter of 2018. One of the projects is a 4 MW battery sited at FPL's Citrus Solar Energy Center, which captures clipped (curtailed) solar energy from the solar panels during high solar insolation hours, then releases this energy in other hours. The second of these two projects is a 10 MW battery at FPL's Babcock Ranch Solar Energy Center. This project is designed to shift PV output from non-peak times to peak times and also to provide "smoothing" of solar output and regulation services. These two projects are designed to enhance the operations of existing solar facilities as outlined in the Settlement Agreement, and are not included in the SoBRA cost recovery mechanism. The data and lessons gathered from these two projects will result in more optimized design configurations for solar-paired battery projects as well as improved operational parameters for economic dispatch.

Three additional pilot projects are under development and expected to go in-service in 2019. The first project, scheduled to go in-service in the 3rd Quarter of 2019, will utilize a 10 MW battery in Wynwood, a dense urban area close to downtown Miami. The project is designed to examine the use of batteries to support the distribution system with a focus on addressing grid, system, and customer challenges. Another entails deploying a 3 MW battery alongside an existing solar PV system to create a microgrid. The microgrid will be used for local resiliency and to provide additional grid services, including mitigation of disruptions potentially caused by solar in the distribution system. The third project currently under development will deploy approximately 1 MW of Electric-Vehicle-to-Grid ("EV2G") batteries using electric school buses that will be able to discharge electricity to the grid when needed. This project will explore the potential for utilizing electric vehicles as grid resources on FPL's system for the first time ever.

These projects will utilize approximately 28 MW of the 50 MW allowed under the Settlement Agreement. In regard to the remaining 22 MW of allowed storage capacity, FPL is continuing to evaluate which types of battery storage configurations and applications are projected to be the most meaningful to examine at this time. Potential project ideas are evaluated on an ongoing basis, considering current trends in the battery storage market, as well as the needs of FPL's system and the potential for projects of a given type to create future customer savings and value. FPL expects to have all of its Large-Scale Storage Pilot Projects in operation by the end of 2020.

In addition to the two storage pilot projects described above (Small Scale and Large Scale 50 MW), FPL plans to test battery storage in the residential setting. This will involve approximately 20 residential sites in the Palm Beach County area. The test will address both potential benefits of having a 5-to-8 kW storage system for home backup power and the ability of FPL to remotely control the storage systems to provide services to the electric grid. The test is projected to commence in 2019.

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–fueled 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 (20%) and additional purchases (30%) 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, which began serving FPL's customers in 1991.

The trend since the early 1990s has been a steady increase in the amount of natural gas, which FPL uses to produce electricity due, in part, to the introduction of highly efficient and cost-effective CC generating units and the ready availability of abundant, U.S.-produced natural gas. FPL placed into commercial operation two new gas-fueled CC units at the West County Energy Center (WCEC) site in 2009. FPL added a third new CC unit to the WCEC site in 2011. In addition, FPL has completed the modernization of its Cape Canaveral, Riviera Beach, and Port Everglades plant sites. These new CC units have dramatically improved the efficiency of FPL's generation system in general and, more specifically, the efficiency with which natural gas is utilized. In March of 2018, the FPSC authorized a modernization of FPL's Lauderdale site in which two existing steam-type generating units will be retired in late 2018, and a new, much more fuel-efficient CC unit, DBEC Unit 7, will be added at the site by mid-2022.

In addition, FPL increased its utilization of nuclear energy through capacity uprates of its four existing nuclear units. With these uprates, more than 500 MW of additional nuclear capacity have been added to the FPL system. FPL is also pursuing plans to obtain licenses, permits, and approvals to construct and operate two new nuclear units at its existing Turkey Point site that, in total, would add approximately 2,200 MW of new nuclear generating capacity. As mentioned previously, FPL has obtained the Combined Operating Licenses from the NRC for two new nuclear units, Turkey Point Units 6 & 7. FPL has now paused in this process to decide when to pursue approval from the FPSC to proceed to construction. In addition, on January 30, 2018, FPL applied to the Nuclear Regulatory Commission (NRC) for Subsequent License Renewal (SLR) for FPL's Turkey Point Units 3 & 4. The current license terms for these two existing nuclear units extend into the years 2032 and 2033, respectively. The SLR requests approval to extend the operating licenses by 20 years to 2052 and 2053, respectively.

In regard to utilizing renewable energy, FPL currently has a 75 MW solar thermal steam generating facility at the company's existing Martin site and a total of approximately 1,153 MW of PV generating capability with solar facilities at 17 other sites. FPL is also projecting the addition of significantly more solar generation as discussed throughout this Site Plan. However, as previously discussed in this chapter, the contribution to fuel diversity of this additional PV capability will be lower on a MWh basis than the large MW additions of PV might suggest.

FPL's future resource planning work will continue to focus on identifying and evaluating alternatives that would most cost-effectively maintain and/or enhance FPL's long-term fuel diversity. These fuel-diverse alternatives may include: the purchase of power from renewable energy facilities, additional solar energy facilities, obtaining additional access to diversified sources of natural gas such as liquefied natural gas (LNG) and natural gas from the Mid-Continent and Marcellus regions, preserving FPL's ability to utilize fuel oil at its existing units, and increased utilization of nuclear energy. (As previously discussed, new, advanced technology coal-fueled generating units are not currently considered as viable options in Florida in the ten-year reporting period of this document.) The evaluation of the feasibility and cost-effectiveness of these and other possible fuel diversity alternatives will be part of FPL's on-going resource planning efforts.

FPL's current use of various fuels to supply energy to customers, plus a projection of this "fuel mix" through 2028 based on the resource plan presented in this document, is presented in Schedules 5, 6.1, and 6.2 that appear later in this chapter.

2. FPL's Fossil Fuel Cost Forecasts

Fossil fuel price forecasts, and the resulting projected price differentials between fuels, are major drivers used to evaluate alternatives for meeting future resource needs. FPL's forecasts are generally consistent with other published contemporary forecasts. A December 2018 fuel cost forecast was used in analyses, the results of which led to the resource plan presented in this 2019 Site Plan.

Future oil and natural gas prices, and to a lesser extent, coal 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, and coal. These drivers include U.S. and worldwide demand, production capacity, economic growth, environmental requirements, and politics.

The inherent uncertainty and unpredictability of these factors today and in the future clearly underscore the need to develop a set of plausible oil, natural gas, and solid fuel (coal) 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 fossil fuels in anticipation of its 2019 resource planning work.

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:

a. For the current + 2 years (2019-2021), the methodology used the December 2018 forward curve for New York Harbor 0.7% sulfur heavy oil, WTI Crude Oil, Ultra-Low Sulfur Diesel (ULSD) fuel oil, and Henry Hub natural gas commodity prices;

b. For the next two years (2022 and 2023), FPL used a 50/50 blend of the December 2018 forward curve and the most current projections at the time from The PIRA Energy Group;

c. For the 2024 through 2040 period, FPL used the annual projections from The PIRA Energy Group; and,

d. For the period beyond 2040, FPL used the real rate of escalation from the Energy Information Administration (EIA). 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 prices. Forecasted coal prices were based upon the following approach:

a. Delivered price forecasts for Central Appalachian (CAPP), Illinois Basin (IB), and Powder River Basin (PRB) coal were provided by JD Energy; and,

b. The coal price forecast for Plant Scherer assumes the continuation of the existing mine-mouth and transportation contracts until expiration, along with the purchase of spot coal, to meet generation requirements.

In cases where multiple fuel cost forecasts are used, a Medium fuel cost forecast is developed first. FPL's approach has been to then adjust the Medium fuel cost forecast upward (for the High fuel cost forecast) or downward (for the Low fuel cost forecast) by multiplying the annual cost values from the Medium fuel cost forecast by a factor of (1 + the historical volatility of the 12-month forward price, one year ahead) for the High fuel cost forecast, or by a factor of (1 – the historical volatility of the 12-month forward price, one year ahead) for the Low fuel cost forecast.

3. Natural Gas Storage

FPL is currently under contract for 4.0 billion cubic feet (Bcf) of firm natural gas storage capacity at the Bay Gas storage facility in Alabama. The contract is set to expire March 31, 2020 but will automatically renew for up to four more successive one-year terms unless otherwise terminated by either party on or before December 31 of 2019. FPL has predominately utilized natural gas storage to help mitigate gas supply problems caused by severe weather and/or infrastructure problems. To diversify FPL's natural gas storage portfolio, FPL entered into a one-year storage contract with SG Resources Mississippi, L.L.C. (Southern Pines Storage) for 1 Bcf of storage beginning April 2018. This storage facility is located in Mississippi and is connected to numerous pipelines including FGT, Southeast Supply Header and Transco.

Over the past several years, FPL has acquired upstream transportation capacity on several pipelines to help mitigate the risk of off-shore supply problems caused by severe weather in the Gulf of Mexico. While this transportation capacity has reduced FPL's off-shore exposure, a portion of FPL's supply portfolio remains tied to off-shore natural gas sources. Therefore, natural gas storage remains an important tool to help mitigate the risk of supply disruptions.

As FPL's reliance on natural gas has increased, its ability to manage the daily "swings" that can occur on its system due to weather and unit availability changes has become more challenging, particularly from oversupply situations. Natural gas storage is a valuable tool to help manage the daily balancing of supply and demand. From a balancing perspective, injection and withdrawal rights associated with gas storage have become an increasingly important part of the evaluation of overall gas storage requirements.

As FPL's system grows to meet customer needs, it must maintain adequate gas storage capacity to continue to help mitigate supply and/or infrastructure problems and to provide FPL the ability to manage its supply and demand on a daily basis. FPL continues to evaluate its gas storage portfolio and may subscribe for additional gas storage capacity to help increase reliability, provide the necessary flexibility to respond to demand changes, and diversify the overall portfolio.

4. Securing Additional Natural Gas:

The recent trend of increasing reliance upon natural gas to produce electricity for FPL's customers is projected to continue over the long-term due to FPL's growing load. The addition of highly fuel-efficient CC units at Cape Canaveral, Riviera Beach, Port Everglades, and Okeechobee, plus the additional CC capacity at the Dania Beach site that will come in-service in 2022, will reduce the growth in natural gas use from what it otherwise might have been due to the high fuel-efficiency levels of these new CC units. In addition, as discussed above, FPL currently plans to add significantly more PV facilities that utilize no fossil fuel.

FPL has historically purchased the gas transportation capacity required for new natural gas supply from two existing natural gas pipeline companies: FGT and Gulfstream. In mid-2017, a third new pipeline system, consisting of the Sabal Trail and Florida Southeast Connection pipelines, went into operation. This new pipeline system is now providing fuel for FPL's Riviera and Martin plants. The new pipeline system will also provide the primary fuel for the FPSC-approved Okeechobee CC unit which will come in-service at approximately the time this Site Plan is being filed. The new pipeline system will also allow needed support for gas-fueled FPL generation facilities in several counties.

5. Nuclear Fuel Cost Forecast

This section reviews: the various steps needed to fabricate nuclear fuel for delivery to nuclear power plants, the method used to forecast the price for each step, and other comments regarding FPL's nuclear fuel cost forecast.

a) Steps Required for Nuclear Fuel to be delivered to FPL's Plants

Four separate steps are required before nuclear fuel can be used in a commercial nuclear power reactor. These steps are summarized below.

(1) Mining: Uranium is produced in many countries such as Canada, Australia, Kazakhstan, and the United States. During the first step, uranium is mined from the ground using techniques such as open pit mining, underground mining, in-situ leaching operations, or production as a by-product from other mining operations, such as gold, copper, or phosphate rocks. The product from this first step is the raw uranium delivered as an oxide, U_3O_8 (sometimes referred to as yellowcake).

(2) Conversion: During the second step, the U_3O_8 is chemically converted into UF_6 which, when heated, changes into a gaseous state. This second step further removes any chemical impurities and serves as preparation for the third step, which requires uranium to be in a gaseous state.

(3) Enrichment: Natural uranium contains 0.711% of uranium at an atomic mass of 235 (U-235) and 99.289% of uranium at an atomic mass of 238 (U-238). FPL's nuclear reactors use uranium with a higher percentage of up to almost five percent (5%) of U-235 atoms. Because natural uranium does not contain a sufficient amount of U-235, the third step increases the percentage amount of U-235 from 0.711% to a level specified when designing the reactor core (typically in a range from approximately 2.2% to as high as 4.95%). The output of this enrichment process is enriched uranium in the form of UF6.

(4) Fabrication: During the last step, fuel fabrication, the enriched UF6 is changed to a UO2 powder, pressed into pellets, and fed into tubes, which are sealed and bundled together into fuel assemblies. These fuel assemblies are then delivered to the plant site for insertion in a reactor.

Like other utilities, FPL has purchased raw uranium and the other components of the nuclear fuel cycle separately from numerous suppliers from different countries.

b) Price Forecasts for Each Step

(1) Mining: The impact of the earthquake and tsunami that struck the Fukushima nuclear complex in Japan in March 2011 is still being felt in the uranium market as the majority of the Japanese nuclear reactors are still not operating. As a result, current demand has remained declined and several of the production facilities have either closed or announced delays. Factors of importance are:

- Some of the uranium inventory from the U.S. Department of Energy (DOE) is finding its way into the market periodically to fund cleanup of certain Department of Energy facilities.
- Although only two new nuclear units are scheduled to start production in the U.S. during the next 5 to 10 years, other countries, more specifically China, have announced an increase in construction of new units which may cause uranium prices to trend up in the near future.

Over a 10-year horizon, FPL expects the market to be more consistent with market fundamentals. The supply picture is more stable, with laws enacted to resolve the import of Russian-enriched uranium, by allowing some imports of Russian-enriched uranium to meet about 20-25% of needs for currently operating units, but with no restriction on the first core for new units and no restrictions after 2020 (an extension of these restrictions is currently under review). New and current uranium production facilities are decreasing capacity due to continued low prices and demands. Actual demand tends to grow over time because of the long lead time to build nuclear units. However, FPL cannot discount the possibility of future periodic sharp increase in prices, but believes such occurrences will likely be temporary in nature.

(2) Conversion: The conversion market is also in a state of flux due to the Fukushima events. Planned production after 2019 is currently forecasted to be insufficient to meet a higher demand scenario, but it is projected to be sufficient to meet most reference case scenarios. As with additional raw uranium production, supply will expand beyond the current level if more firm commitments are made. FPL expects long-term price stability for conversion services to support world demand.

(3) Enrichment: Since the Fukushima events in March 2011, the near-term price of enrichment services has declined. However, plans for construction of several new facilities that were expected to come on-line after 2011 have been delayed. Also, some of the existing high operating cost diffusion plants have shut down. As with supply for the other steps of the nuclear fuel cycle, expansion of future capacity is feasible within the lead time for constructing new nuclear units and any other projected increase in demand. Meanwhile, world supply and demand will continue to be balanced such that FPL expects adequate supply of enrichment services. The current supply/demand profile will likely result in the price of enrichment services remaining stable for the next few years, then starting to increase.

(4) Fabrication: Because the nuclear fuel fabrication process is highly regulated by the Nuclear Regulatory Commission (NRC), not all production facilities can qualify as suppliers to nuclear reactors in the U.S. Although world supply and demand is expected to show significant excess capacity for the foreseeable future, the gap is not as wide for U.S. supply and demand. The supply for the U.S. market is expected to be sufficient to meet U.S. demand for the foreseeable future.

c) Other Comments Regarding FPL's Nuclear Fuel Cost Forecast

FPL's nuclear fuel price forecasts are the result of FPL's analysis based on inputs from various nuclear fuel market expert reports and studies. The calculations for the nuclear fuel cost forecasts used in FPL's 2018 and early 2019 resource planning work were performed consistent with the method then used for FPL's Fuel Clause filings, including the assumption of refueling outages every 18 months and plant operation at current (i.e., power uprated) levels. The costs for each step to fabricate the nuclear fuel were added to calculate the total costs of the fresh fuel to be loaded at each refueling (acquisition costs). The acquisition cost for each group of fresh fuel assemblies were then amortized over the energy produced by each group of fuel assemblies. DOE notified FPL that, effective May 2014, all high-level waste payments would be suspended until further notice. Therefore, FPL is no longer including in its nuclear fuel cost forecast a 1 mill per kilowatt hour net to reflect payment to DOE for spent fuel disposal.

Schedule 5
Fuel Requirements
(for FPL only)

			Actual 1/		Forecasted									
	Fuel Requirements	**Units**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**
(1)	Nuclear	Trillion BTU	307	309	304	304	304	310	306	305	310	306	304	317
(2)	Coal	1,000 TON	3,752	1,691	1,728	1,055	1,177	1,038	1,160	1,056	1,204	1,102	1,251	1,247
(3)	Residual (FO6) - Total	1,000 BBL	2,061	440	75	1	8	0	0	0	0	0	0	0
(4)	Steam	1,000 BBL	2,061	440	75	1	8	0	0	0	0	0	0	0
(5)	Distillate (FO2) - Total	1,000 BBL	2,080	187	67	11	9	1	5	6	4	8	9	9
(6)	Steam	1,000 BBL	12	4	0	0	0	0	0	0	0	0	0	0
(7)	CC	1,000 BBL	954	94	0	0	0	0	0	0	0	0	0	0
(8)	CT	1,000 BBL	1,114	89	67	11	9	1	5	6	4	8	9	9
(9)	Natural Gas - Total	1,000 MCF	633,820	660,569	587,574	582,725	574,068	552,659	541,461	540,180	522,436	530,046	521,457	504,767
(10)	Steam	1,000 MCF	42,916	38,572	14,243	3,840	4,949	0	0	0	0	0	0	0
(11)	CC	1,000 MCF	584,414	616,949	566,836	578,017	567,916	551,782	540,604	539,733	522,143	529,638	521,358	504,751
(12)	CT	1,000 MCF	6,490	5,048	6,495	867	1,204	877	858	448	293	408	99	15

1/ Source: A Schedules.
Note: Solar contributions are provided on Schedules 6.1 and 6.2.

Schedule 6.1
Energy Sources

			Actual [1/]						Forecasted					
	Energy Sources	Units	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
(1)	Annual Energy Interchange	GWH	1,598	0	0	0	0	0	0	0	0	0	0	0
(2)	Nuclear	GWH	27,971	28,176	28,431	28,432	28,415	29,006	28,563	28,447	28,993	28,583	28,363	29,675
(3)	Coal	GWH	4,057	2,586	2,663	1,520	1,694	1,487	1,663	1,518	1,744	1,602	1,827	1,819
(4)	Residual(FO6)-Total	GWH	184	248	49	1	5	0	0	0	0	0	0	0
(5)	Steam	GWH	184	248	49	1	5	0	0	0	0	0	0	0
(6)	Distillate(FO2)-Total	GWH	216	129	36	6	5	1	2	3	2	4	5	5
(7)	Steam	GWH	1	2	0	0	0	0	0	0	0	0	0	0
(8)	CC	GWH	119	78	0	0	0	0	0	0	0	0	0	0
(9)	CT	GWH	96	49	36	6	5	1	2	3	2	4	5	5
(10)	Natural Gas -Total	GWH	86,706	91,213	85,578	86,393	84,986	82,543	81,092	80,794	78,238	79,819	78,866	76,202
(11)	Steam	GWH	3,506	3,133	1,297	356	457	0	0	0	0	0	0	0
(12)	CC	GWH	82,609	87,625	83,686	85,952	84,412	82,459	81,009	80,752	78,211	79,782	78,858	76,200
(13)	CT	GWH	591	456	594	85	117	84	83	42	28	36	9	2
(14)	Solar [2/]	GWH	658	1,887	2,678	4,247	5,583	7,656	9,720	11,459	13,828	13,788	15,829	18,609
(15)	PV	GWH	646	1,836	2,554	4,122	5,461	7,531	9,594	11,334	13,703	13,663	15,707	18,489
(16)	Solar Thermal	GWH	12	51	124	126	122	125	125	126	125	125	123	120
(17)	Other [3/]	GWH	(642)	(1,793)	1,666	1,686	1,682	1,638	1,640	1,642	1,635	1,635	1,629	1,631
	Net Energy For Load [4/]	GWH	120,747	122,447	121,100	122,284	122,370	122,331	122,680	123,864	124,440	125,430	126,520	127,941

1/ Source: A Schedules and Actual Data for Next Generation Solar Centers Report
2/ Represents output from FPL's PV and solar thermal facilities.
3/ Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.
4/ Net Energy For Load values for the years 2019 - 2028 are also shown in Col. (19) on Schedule 2.3.

Schedule 6.2
Energy Sources % by Fuel Type

	Energy Source	Units	Actual [1/] 2017	2018	Forecasted 2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
(1)	Annual Energy Interchange	%	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	Nuclear	%	23.2	23.0	23.5	23.3	23.2	23.7	23.3	23.0	23.3	22.8	22.4	23.2
(3)	Coal	%	3.4	2.1	2.2	1.2	1.4	1.2	1.4	1.2	1.4	1.3	1.4	1.4
(4)	Residual (FO6) -Total	%	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(5)	Steam	%	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(6)	Distillate (FO2) -Total	%	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(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	%	71.8	74.5	70.7	70.6	69.5	67.5	66.1	65.2	62.9	63.6	62.3	59.6
(11)	Steam	%	2.9	2.6	1.1	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(12)	CC	%	68.4	71.6	69.1	70.3	69.0	67.4	66.0	65.2	62.9	63.6	62.3	59.6
(13)	CT	%	0.5	0.4	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
(14)	Solar [2/]	%	0.5	1.5	2.1	3.4	4.5	6.2	7.8	9.2	11.0	10.9	12.4	14.5
(15)	PV	%	0.5	1.5	2.1	3.4	4.5	6.2	7.8	9.2	11.0	10.9	12.4	14.5
(16)	Solar Thermal	%	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
(17)	Other [3/]	%	(0.5)	(1.5)	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3
			100	100	100	100	100	100	100	100	100	100	100	100

1/ Source: A Schedules and Actual Data for Next Generation Solar Centers Report
2/ Represents output from FPL's PV and solar thermal facilities.
3/ Represents a forecast of energy expected to be purchased from Qualifying Facilities, etc., Independent Power Producers, net of Economy and other Power Sales. No economy or other power sales are accounted for in the forecasted values 2019-2028.

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)	(15)	(16)
August of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Summer Peak Demand MW	Total Reserve Margin Before Maintenance MW	% of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	% of Peak	Generation Only Reserve Margin After Maintenance MW	% of Peak
2019	26,570	110	0	434	27,113	24,305	1,815	22,489	4,624	20.6	0	4,624	20.6	2,809	11.6
2020	27,170	110	0	104	27,384	24,507	1,877	22,630	4,754	21.0	0	4,754	21.0	2,876	11.7
2021	27,456	110	0	4	27,570	24,668	1,912	22,756	4,814	21.2	0	4,814	21.2	2,901	11.8
2022	27,915	110	0	4	28,029	24,837	1,948	22,890	5,139	22.5	0	5,139	22.5	3,192	12.9
2023	28,258	110	0	4	28,371	25,173	1,983	23,191	5,180	22.3	0	5,180	22.3	3,198	12.7
2024	28,541	110	0	4	28,654	25,583	2,018	23,565	5,089	21.6	0	5,089	21.6	3,071	12.0
2025	28,939	110	0	4	29,052	25,939	2,053	23,886	5,166	21.6	0	5,166	21.6	3,113	12.0
2026	30,816	110	0	4	30,930	26,380	2,088	24,292	6,638	27.3	0	6,638	27.3	4,550	17.2
2027	31,155	110	0	0	31,265	26,867	2,124	24,743	6,522	26.4	0	6,522	26.4	4,399	16.4
2028	31,467	110	0	0	31,577	27,363	2,159	25,204	6,374	25.3	0	6,374	25.3	4,215	15.4

Col. (2) represents capacity additions and changes projected to be in-service by June 1st. These MW are generally considered to be available to meet Summer peak loads which are forecasted to occur during August of the year indicated.
Col. (6) = Col.(2) + Col.(3) - Col(4) + Col(5).
Col.(7) reflects the December 2018 load forecast without incremental energy efficiency or cumulative load management.
Col.(8) represents cumulative load management capability, plus incremental energy efficiency and load management, from 9/2018-on intended for use with the December 2018 load forecast.
Col.(10) = Col.(6) - Col.(9)
Col.(11) = Col.(10) / Col.(9)
Col.(12) indicates the capacity of units projected to be out-of-service for planned maintenance during the Summer peak period.
Col.(13) = Col.(10) - Col.(12)
Col.(14) = Col.(13) / Col.(9)
Col.(15) = Col.(6) - Col.(7) - Col.(12)
Col.(16) = Col.(15) / Col.(7)

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)	(15)	(16)
January of Year	Firm Installed Capacity MW	Firm Capacity Import MW	Firm Capacity Export MW	Firm QF MW	Total Firm Capacity Available MW	Total Peak Demand MW	DSM MW	Firm Winter Peak Demand MW	Total Reserve Margin Before Maintenance MW	Total Reserve Margin Before Maintenance % of Peak	Scheduled Maintenance MW	Total Reserve Margin After Maintenance MW	Total Reserve Margin After Maintenance % of Peak	Generation Only Reserve Margin After Maintenance MW	Generation Only Reserve Margin After Maintenance % of Peak
2019	25,007	110	0	404	25,521	19,530	1,374	18,156	7,365	40.6	0	7,365	40.6	5,991	30.7
2020	27,006	110	0	74	27,189	19,904	1,438	18,466	8,723	47.2	0	8,723	47.2	7,285	36.6
2021	27,026	110	0	4	27,139	20,264	1,464	18,800	8,339	44.4	0	8,339	44.4	6,875	33.9
2022	25,877	110	0	4	25,990	20,255	1,490	18,765	7,225	38.5	0	7,225	38.5	5,735	28.3
2023	27,053	110	0	4	27,166	20,528	1,516	19,012	8,154	42.9	0	8,154	42.9	6,638	32.3
2024	27,053	110	0	4	27,166	20,775	1,542	19,234	7,932	41.2	0	7,932	41.2	6,391	30.8
2025	27,053	110	0	4	27,166	20,932	1,568	19,364	7,802	40.3	0	7,802	40.3	6,234	29.8
2026	27,053	110	0	4	27,166	21,150	1,594	19,557	7,609	38.9	0	7,609	38.9	6,016	28.4
2027	28,933	110	0	0	29,043	21,374	1,619	19,755	9,288	47.0	0	9,288	47.0	7,668	35.9
2028	28,933	110	0	0	29,043	21,623	1,645	19,978	9,065	45.4	0	9,065	45.4	7,419	34.3

Col. (2) represents capacity additions and changes projected to be in-service by January 1st. These MW are generally considered to be available to meet Winter peak loads which are forecasted to occur during January of the year indicated.

Col. (6) = Col. (2) + Col. (3) - Col(4) + Col(5).

Col. (7) reflects the 2018 load forecast without incremental energy efficiency or cumulative load management. The December 2018 load is an actual load value.

Col. (8) represents cumulative load management capability, plus incremental energy efficiency and load management, from 9/2018-on intended for use with the Decemebr 2018 load forecast.

Col. (10) = Col. (6) - Col. (9)

Col. (11) = Col. (10) / Col. (9)

Col. (12) indicates the capacity of units projected to be out-of-service for planned maintenance during the Winter peak period.

Col. (13) = Col. (10) - Col. (12)

Col. (14) = Col. (13) / Col. (9)

Col. (15) = Col. (6) - Col. (7) - Col. (12)

Col. (16) = Col. (15) / Col. (7)

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.	Firm Net Capability [2]		
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														
2019														
Sunshine Gateway Solar[3]	1	Columbia County	PV	Solar	Solar	N/A	N/A	-	Jan-19	Unknown	74,500	-	41	OP
Miami Dade Solar[3]	1	Miami-Dade County	PV	Solar	Solar	N/A	N/A	-	Jan-19	Unknown	74,500	-	41	OP
Interstate Solar[3]	1	St. Lucie County	PV	Solar	Solar	N/A	N/A	-	Jan-19	Unknown	74,500	-	41	OP
Pioneer Trail Solar[3]	1	Volusia County	PV	Solar	Solar	N/A	N/A	-	Jan-19	Unknown	74,500	-	41	OP
Sanford	5	Volusia County	CC	NG	No	PL	No	-	Apr-19	Unknown	1,188,860	-	159	OP
West County	2	Palm Beach County	CC	NG	FO2	PL	TK	-	Apr-19	Unknown	1,336,800	-	22	OP
Okeechobee Clean Energy Center	1	Okeechobee County	CC	NG	FO2	PL	TK	Jun-17	Apr-19	Unknown	-	-	1,778	P
Fort Myers	2	Lee County	CC	NG	No	PL	No	-	May-19	Unknown	1,721,490	-	199	OP
Turkey Point	5	Miami Dade County	CC	NG	FO2	PL	TK	-	May-19	Unknown	1,224,510	-	23	OP
West County	2	Palm Beach County	CC	NG	FO2	PL	TK	-	May-19	Unknown	1,336,800	-	43	OP
Sanford	4	Volusia County	CC	NG	No	PL	No	-	Jun-19	Unknown	1,188,860	-	148	OP
Turkey Point	5	Miami Dade County	CC	NG	FO2	PL	TK	-	Jun-19	Unknown	1,224,510	-	23	OP
Fort Myers	2	Lee County	CC	NG	No	PL	No	-	Aug-19	Unknown	1,721,490	-	40	OP
									2019 Changes/Additions Total:			**0**	**2,600**	
2020														
Sanford	5	Volusia County	CC	NG	No	PL	No	-	Apr-19	Unknown	1,188,860	54	-	OP
West County	2	Palm Beach County	CC	NG	FO2	PL	TK	-	Apr-19	Unknown	1,336,800	20	-	OP
Okeechobee Clean Energy Center	1	Okeechobee County	CC	NG	FO2	PL	TK	Jun-17	Apr-19	Unknown	-	1,752	-	P
Fort Myers	2	Lee County	CC	NG	No	PL	No	-	May-19	Unknown	1,721,490	35	-	OP
West County	2	Palm Beach County	CC	NG	FO2	PL	TK	-	May-19	Unknown	1,336,800	40	-	OP
Sanford	4	Volusia County	CC	NG	No	PL	No	-	Dec-19	Unknown	1,188,860	41	-	OP
Fort Myers	2	Lee County	CC	NG	No	PL	No	-	Aug-19	Unknown	1,721,490	7	-	OP
Cape Canaveral Energy Center	3	Brevard County	CC	NG	FO2	PL	TK	-	Nov-19	Unknown	1,295,400	15	33	OP
Manatee	3	Manatee County	CC	NG	No	PL	No	-	Nov-19	Unknown	612,000	-	116	OP
Turkey Point	5	Miami Dade County	CC	NG	FO2	PL	TK	-	Dec-19	Unknown	1,224,510	34	40	OP
Northern Preserve Solar[3]	1	Baker County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Twin Lakes Solar[3]	1	Putnam County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Cattle Ranch Solar[3]	1	Desoto County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Sweetbay Solar[3]	1	Martin County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Babcock Preserve Solar[3]	1	Charlotte County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Blue Heron Solar[3]	1	Hendry County	PV	Solar	Solar	N/A	N/A	-	Jan-20	Unknown	74,500	-	41	P
Hibiscus Solar[3]	1	Palm Beach County	PV	Solar	Solar	N/A	N/A	-	Apr-20	Unknown	74,500	-	41	P
Southfork Solar[3]	1	Manatee County	PV	Solar	Solar	N/A	N/A	-	Apr-20	Unknown	74,500	-	41	P
Echo River Solar[3]	1	Suwannee County	PV	Solar	Solar	N/A	N/A	-	Apr-20	Unknown	74,500	-	41	P
Okeechobee Solar[3]	1	Okeechobee Manatee County	PV	Solar	Solar	N/A	N/A	-	Apr-20	Unknown	74,500	-	41	P
Solar Degradation[3]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(2)	OT
									2020 Changes/Additions Total:			**1,998**	**600**	

(1) Schedule 8 shows only planned and prospective changes to FPL generating facilities and does not reflect changes to purchases. Changes to purchases are reflected on Tables ES-1, I.B.1 and I.B.2.

(2) 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 August. All MW additions/changes occurring after August each year will be acounted for in reserve margin calculations in the following year. MW Difference in Changes/Additions Total due to rounding.

(3) Solar MW values reflect firm capacity only values, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output. Solar degredation for existing solar facilities is accounted for in

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						Firm		
				Fuel		Transport		Const.	Comm.	Expected	Gen. Max.	Net Capability (2)		
	Unit		Unit					Start	In-Service	Retirement	Nameplate	Winter	Summer	
Plant Name	No.	Location	Type	Pri.	Alt.	Pri.	Alt.	Mo./Yr.	Mo./Yr.	Mo./Yr.	KW	MW	MW	Status
ADDITIONS/ CHANGES														
2021														
Turkey Point	4	Miami Dade County	ST	Nuc	No	TK	No	-	Oct-20	Unknown	877,200	20	20	OP
Solar PV(3)(4)		Unknown	PV	Solar	Solar	N/A	N/A		4th Q 2020			-	248	P
West County	3	Palm Beach County	CC	NG	FO2	PL	TK	-	May-21	Unknown	1,336,800	-	22	OP
Solar Degradation(3)	NA	NA	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(3)	OT
											2020 Changes/Additions TOPal:	**20**	**286**	
2022														
West County	3	Palm Beach County	CC	NG	FO2	PL	TK	-	May-21	Unknown	1,336,800	20	-	OP
Manatee Retirement	1	Manatee County	ST	NG	FO6	PL	WA	-	Oct-76	4th Q 2021	863,300	(819)	(809)	P
Manatee Retirement	2	Manatee County	ST	NG	FO6	PL	WA	-	Dec-77	4th Q 2021	863,300	(819)	(809)	P
Battery Storage	1	Manatee County	BS	N/A	N/A	N/A	N/A		4th Q 2021	Unknown		469	469	P
Solar PV(3)(4)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2022	Unknown		-	449	P
Dania Beach Clean Energy Center	7	Broward County	CC	NG	FO2	PL	WA		Jun-22	Unknown		-	1,163	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(4)	OT
											2021 Changes/Additions Total:	**(1,149)**	**459**	
2023														
Dania Beach Clean Energy Center	7	Broward County	CC	NG	FO2	PL	WA		Jun-22	Unknown		1,176	-	P
Solar PV(3)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2023	Unknown		-	347	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(5)	OT
											2022 Changes/Additions Total:	**1,176**	**342**	
2024														
Solar PV(3)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2024	Unknown		-	289	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(6)	OT
											2023 Changes/Additions Total:	**0**	**283**	
2025														
Solar PV(3)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2025	Unknown		-	405	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(7)	OT
											2024 Changes/Additions Total:	**0**	**398**	
2026														
Unsited Combined Cycle		Unknown	CC	NG	FO2	PL	WA		Jun-25	Unknown		-	1,886	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(8)	OT
											2025 Changes/Additions Total:	**0**	**1,878**	
2027														
Unsited Combined Cycle		Unknown	CC	NG	FO2	PL	WA		Jun-25	Unknown		1,880	-	
Solar PV(3)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2027			-	347	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(8)	OT
											2026 Changes/Additions Total:	**1,880**	**339**	
2028														
Solar PV(3)		Unknown	PV	Solar	Solar	N/A	N/A		1st Q 2028	Unknown		-	321	P
Solar Degradation(3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(9)	OT
											2026 Changes/Additions Total:	**0**	**312**	

(1) Schedule 8 shows only planned and prospective changes to generating facilities and does not reflect changes to expisting purchases. Those changes are reflected on Tables ES-1, I.B.1 and I.B.2.
(2) 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 MW additions/changes occurring after August each year will be accounted for in reserve margin calculations in the following year. MW Difference in Changes/Additions Total due to rounding.
(3) Solar values reflect firm capacity only values, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.
(4) Solar PV MW values, and timing of those MW, presented in this table are subject to change based on the outcome of FPL's petition for FPSC approval of FPL's SolarTogether Program. Please see Chapter III for more information.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Babcock Preserve Solar Energy Center (Charlotte County)

(2) **Capacity**

a. Nameplate (AC) 74.5 MW

b. Summer Firm (AC)[1/] 41 MW (Approximately)

c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date: 2019

b. Commercial In-service date: 2020

(5) **Fuel**

a. Primary Fuel Solar

b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 430 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	27.1% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable Btu/kWh
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable Btu/kWh

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

Book Life (Years):	30 years
Total Installed Cost (2020 $/kW):	1,249
Direct Construction Cost ($/kW):	1,210
AFUDC Amount (2020 $/kW):	39
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2020 $)	6.57 (First Full Year Operation)
Variable O&M ($/MWH): (2020 $)	0.00
K Factor:	1.01

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value show n represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL w ill continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning w ork.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Blue Heron Solar Energy Center (Hendry County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	628	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	27.1%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,267	
	Direct Construction Cost ($/kW):	1,228	
	AFUDC Amount (2020 $/kW):	39	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.57	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	0.99	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Cattle Ranch Solar Energy Center (DeSoto County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	1,050	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	27.2%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,135	
	Direct Construction Cost ($/kW):	1,098	
	AFUDC Amount (2020 $/kW):	37	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.92	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	1.02	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Northern Preserve Solar Energy Center (Baker County)

(2) **Capacity**

a. Nameplate (AC)	74.5	MW
b. Summer Firm (AC)[1/]	41	MW (Approximately)
c. Winter Firm (AC)	-	

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date:	2019
b. Commercial In-service date:	2020

(5) **Fuel**

a. Primary Fuel	Solar
b. Alternate Fuel	Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 558 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	23.6% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable

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

Book Life (Years):	30 years
Total Installed Cost (2020 $/kW):	1,097
Direct Construction Cost ($/kW):	1,063
AFUDC Amount (2020 $/kW):	34
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2020 $)	6.57 (First Full Year Operation)
Variable O&M ($/MWH): (2020 $)	0.00
K Factor:	1.00

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value show n represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL w ill continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning w ork.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Sweetbay Solar Energy Center (Martin County)

(2) **Capacity**

a. Nameplate (AC)	74.5	MW
b. Summer Firm (AC)[1/]	41	MW (Approximately)
c. Winter Firm (AC)	-	

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date:	2019
b. Commercial In-service date:	2020

(5) **Fuel**

a. Primary Fuel	Solar
b. Alternate Fuel	Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 566 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	24.0% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable Btu/kWh
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable Btu/kWh

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

Book Life (Years):	30 years
Total Installed Cost (2020 $/kW):	1,161
Direct Construction Cost ($/kW):	1,125
AFUDC Amount (2020 $/kW):	35
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2020 $)	6.57 (First Full Year Operation)
Variable O&M ($/MWH) (2020 $)	0.00
K Factor:	0.99

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Twin Lakes Solar Energy Center (Putnam County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	873	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.4%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,212	
	Direct Construction Cost ($/kW):	1,173	
	AFUDC Amount (2020 $/kW):	39	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.92	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	1.01	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value show n represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL w ill continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning w ork.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Echo River Solar Energy Center (Suwannee County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	802	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	30.4%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,394	
	Direct Construction Cost ($/kW):	1,330	
	AFUDC Amount (2020 $/kW):	63	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	7.06	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	1.03	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Hibiscus Solar Energy Center (Palm Beach County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	402	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.2%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR):	Not applicable	Btu/kWh
	Base Operation 75F,100%		
	Average Net Incremental Heat Rate (ANIHR):	Not applicable	Btu/kWh
	Peak Operation 75F,100%		
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,373	
	Direct Construction Cost ($/kW):	1,341	
	AFUDC Amount (2020 $/kW):	32	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.27	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	0.98	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Okeechobee Solar Energy Center (Okeechobee County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	471	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	27.1%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,339	
	Direct Construction Cost ($/kW):	1,298	
	AFUDC Amount (2020 $/kW):	41	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.41	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	1.04	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Southfork Solar Energy Center (Manatee County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019	
	b. Commercial In-service date:	2020	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	548	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	31.1%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2020 $/kW):	1,407	
	Direct Construction Cost ($/kW):	1,339	
	AFUDC Amount (2020 $/kW):	68	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2020 $)	6.70	(First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)	0.00	
	K Factor:	1.03	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Egret Solar Energy Center (Baker County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019 or 2020 [2/]	
	b. Commercial In-service date:	2020 or 2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	676	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		26.4% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2020 $/kW):		1,151
	Direct Construction Cost ($/kW):		1,114
	AFUDC Amount (2020 $/kW):		37
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2020 $)		6.92 (First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)		0.00
	K Factor:		1.08

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Lakeside Solar Energy Center (Okeechobee County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019 or 2020 [2/]	
	b. Commercial In-service date:	2020 or 2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	692	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		26.8% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2020 $/kW):		1,205
	Direct Construction Cost ($/kW):		1,169
	AFUDC Amount (2020 $/kW):		36
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2020 $)		6.57 (First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)		0.00
	K Factor:		1.06

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Magnolia Springs Solar Energy Center (Clay County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019 or 2020 [2/]	
	b. Commercial In-service date:	2020 or 2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	850	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		26.5% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2020 $/kW):		1,197
	Direct Construction Cost ($/kW):		1,160
	AFUDC Amount (2020 $/kW):		36
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2020 $)		6.92 (First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)		0.00
	K Factor:		1.07

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Pelican Solar Energy Center (St. Lucie County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:** Photovoltaic (PV)		
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019 or 2020 [2/]	
	b. Commercial In-service date:	2020 or 2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	955	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		26.7% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2020 $/kW):		1,265
	Direct Construction Cost ($/kW):		1,227
	AFUDC Amount (2020 $/kW):		38
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2020 $)		6.57 (First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)		0.00
	K Factor:		1.06

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Rodeo Solar Energy Center (DeSoto County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	41	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2019 or 2020 [2/]	
	b. Commercial In-service date:	2020 or 2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	1,040	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		27.6% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2020 $/kW):		1,113
	Direct Construction Cost ($/kW):		1,076
	AFUDC Amount (2020 $/kW):		36
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2020 $)		6.92 (First Full Year Operation)
	Variable O&M ($/MWH): (2020 $)		0.00
	K Factor:		1.11

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Discovery Solar Energy Center (Brevard County)

(2) **Capacity**
a. Nameplate (AC) 74.5 MW
b. Summer Firm (AC)[1/] 41 MW (Approximately)
c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2019 or 2020 [2/]
b. Commercial In-service date: 2020 or 2021 [2/]

(5) **Fuel**
a. Primary Fuel Solar
b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 491 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	24.3% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable Btu/kWh
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable Btu/kWh

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

Book Life (Years):	30 years
Total Installed Cost (2020 $/kW):	1,087
Direct Construction Cost ($/kW):	1,052
AFUDC Amount (2020 $/kW):	35
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2020 $)	6.57 (First Full Year Operation)
Variable O&M ($/MWH): (2020 $)	0.00
K Factor:	1.07

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 and Schedule 7.1 as 2021. However, if the SolarTogether Program is approved as filed, the in-service date will accelerate to 2020.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Manatee County Site (Manatee County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing** [2/]		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	1,454	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		26.8% (First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		Not applicable Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%		Not applicable Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):		30 years
	Total Installed Cost (2021 $/kW):		1,186
	Direct Construction Cost ($/kW):		1,149
	AFUDC Amount (2021 $/kW):		37
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.): (2021 $)		7.10 (First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)		0.00
	K Factor:		1.10

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Nassau Solar Energy Center (Nassau County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	1,310	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.2%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2021 $/kW):	1,300	
	Direct Construction Cost ($/kW):	1,261	
	AFUDC Amount (2021 $/kW):	38	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2021 $)	7.10	(First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)	0.00	
	K Factor:	1.07	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**		Orange Blossom Solar Energy Center (Indian River County)
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:** Photovoltaic (PV)		
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	607	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.7%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2021 $/kW):	1,217	
	Direct Construction Cost ($/kW):	1,179	
	AFUDC Amount (2021 $/kW):	38	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2021 $)	6.74	(First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)	0.00	
	K Factor:	1.09	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Palm Bay Solar Energy Center (Brevard County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel		Solar
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	486	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.8%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2021 $/kW):	1,229	
	Direct Construction Cost ($/kW):	1,191	
	AFUDC Amount (2021 $/kW):	38	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2021 $)	6.74	(First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)	0.00	
	K Factor:	1.09	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Putnam County Site (Putnam County)

(2) **Capacity**
a. Nameplate (AC) 74.5 MW
b. Summer Firm (AC)[1/] 37 MW (Approximately)
c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2020
b. Commercial In-service date: 2021 [2/]

(5) **Fuel**
a. Primary Fuel Solar
b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 395 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	23.8% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable Btu/kWh
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable Btu/kWh

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

Book Life (Years):	30 years
Total Installed Cost (2021 $/kW):	1,137
Direct Construction Cost ($/kW):	1,102
AFUDC Amount (2021 $/kW):	35
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2021 $)	6.74 (First Full Year Operation)
Variable O&M ($/MWH): (2021 $)	0.00
K Factor:	1.09

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Sabal Palm Solar Energy Center (Palm Beach County)

(2) **Capacity**

a. Nameplate (AC)	74.5	MW
b. Summer Firm (AC)[1/]	37	MW (Approximately)
c. Winter Firm (AC)	-	

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date:	2020
b. Commercial In-service date:	2021 [2/]

(5) **Fuel**

a. Primary Fuel	Solar
b. Alternate Fuel	Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** 1,288 Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	26.8% (First Full Year Operation)
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable Btu/kWh
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable Btu/kWh

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

Book Life (Years):	30 years
Total Installed Cost (2021 $/kW):	1,345
Direct Construction Cost ($/kW):	1,306
AFUDC Amount (2021 $/kW):	40
Escalation ($/kW):	Accounted for in Direct Construction Cost
Fixed O&M ($/kW-Yr.): (2021 $)	6.74 (First Full Year Operation)
Variable O&M ($/MWH): (2021 $)	0.00
K Factor:	1.07

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Trailside Solar Energy Center (St. Johns County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	846	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.8%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2021 $/kW):	1,245	
	Direct Construction Cost ($/kW):	1,207	
	AFUDC Amount (2021 $/kW):	38	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2021 $)	7.10	(First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)	0.00	
	K Factor:	1.09	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Union Springs Solar Energy Center (Union County)	
(2)	**Capacity**		
	a. Nameplate (AC)	74.5	MW
	b. Summer Firm (AC)[1/]	37	MW (Approximately)
	c. Winter Firm (AC)	-	
(3)	**Technology Type:**	Photovoltaic (PV)	
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	2021 [2/]	
(5)	**Fuel**		
	a. Primary Fuel	Solar	
	b. Alternate Fuel	Not applicable	
(6)	**Air Pollution and Control Strategy:**	Not applicable	
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	1,233	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):	Not applicable	
	Forced Outage Factor (FOF):	Not applicable	
	Equivalent Availability Factor (EAF):	Not applicable	
	Resulting Capacity Factor (%):	26.5%	(First Full Year Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable	Btu/kWh
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable	Btu/kWh
(13)	**Projected Unit Financial Data ***		
	Book Life (Years):	30	years
	Total Installed Cost (2021 $/kW):	1,242	
	Direct Construction Cost ($/kW):	1,205	
	AFUDC Amount (2021 $/kW):	38	
	Escalation ($/kW):	Accounted for in Direct Construction Cost	
	Fixed O&M ($/kW-Yr.): (2021 $)	7.10	(First Full Year Operation)
	Variable O&M ($/MWH): (2021 $)	0.00	
	K Factor:	1.09	

* $/kW values are based on nameplate capacity.

Note: Total installed cost includes transmission interconnection and AFUDC.

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is not reflected in table ES-1 or Schedule 7.1. This PV addition is contingent upon FPSC approval of the SolarTogether Program as filed. If SolarTogether as filed is approved by the FPSC, then solar MW values in Table ES-1 and numerous schedules will change.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Battery Storage	
(2)	**Capacity**		
	a. Summer	469 MW	
	b. Winter	469 MW	
(3)	**Technology Type:** Battery		
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	Late 2021 or Early 2022	
(5)	**Fuel**		
	a. Primary Fuel		Not applicable
	b. Alternate Fuel		Not applicable
(6)	**Air Pollution and Control Strategy:**		Not applicable
(7)	**Cooling Method:**	Not applicable	
(8)	**Total Site Area:**	Existing Site 40 Acres	
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		Not applicable
	Forced Outage Factor (FOF):		Not applicable
	Equivalent Availability Factor (EAF):		Not applicable
	Resulting Capacity Factor (%):		Not applicable
	Average Net Operating Heat Rate (ANOHR):		Not applicable
	Base Operation 75F,100%		
	Average Net Incremental Heat Rate (ANIHR):		Not applicable
	Peak Operation 75F,100%		
(13)	**Projected Unit Financial Data *,****		
	Book Life (Years):		40 years
	Total Installed Cost (2022 $/kW):		TBD
	Direct Construction Cost (2022 $/kW):		TBD
	AFUDC Amount (2022 $/kW):		TBD
	Escalation ($/kW):		TBD
	Fixed O&M ($/kW-Yr.):		TBD
	Long Term Capital Replenishment ($/kW)		TBD
	Variable O&M (2022 $/MWH):		TBD
	K Factor:		TBD

* $/kW values are based on Summer capacity.
** Levelized value for Fixed O&M also includes Capital Replacement and annual capital replenishment

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

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Lauderdale Modernization (Dania Beach Clean Energy Center Unit 7)	
(2)	**Capacity**		
	a. Summer	1,163 MW	
	b. Winter	1,176 MW	
(3)	Technology Type:	Combined Cycle	
(4)	Anticipated Construction Timing		
	a. Field construction start-date:	2020	
	b. Commercial In-service date:	June, 2022	
(5)	Fuel		
	a. Primary Fuel		Natural Gas
	b. Alternate Fuel		Ultra-low sulfur distillate
(6)	Air Pollution and Control Strategy:		Dry Low NOx Burners, SCR, Natural Gas, 0.0015% S. Distillate and Water Injection
(7)	Cooling Method:	Once through cooling water	
(8)	**Total Site Area:**	Existing Site	392 Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		3.5%
	Forced Outage Factor (FOF):		1%
	Equivalent Availability Factor (EAF):		95.5%
	Resulting Capacity Factor (%):		90.0% (First Full Year Base Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		6,119 Btu/kWh on Gas
	Average Net Incremental Heat Rate (ANIHR): Peak Firing and Wet Compression 75F,100%		7,592 Btu/kWh on Gas
(13)	Projected Unit Financial Data *,**		
	Book Life (Years):		40 years
	Total Installed Cost (2022 $/kW):		764
	Direct Construction Cost (2022 $/kW):		675
	AFUDC Amount (2022 $/kW):		89
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M ($/kW-Yr.):		19.73
	Variable O&M (2022 $/MWH):		0.23
	K Factor:		1.55

* $/kW values are based on Summer capacity.

** Levelized value for Fixed O&M also includes Capital Replacement

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

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Unsited PV
(2)	**Capacity**	
	a. Nameplate (AC)	894 MW (in twelve 74.5 MW increments)
	b. Summer Firm (AC)[1/]	449 MW (Approximately)
	c. Winter Firm (AC)	-
(3)	**Technology Type:**	Photovoltaic (PV)
(4)	**Anticipated Construction Timing** [2/]	
	a. Field construction start-date:	2021
	b. Commercial In-service date:	1st Q, 2022 [2/]
(5)	**Fuel**	
	a. Primary Fuel	Solar
	b. Alternate Fuel	Not applicable
(6)	**Air Pollution and Control Strategy:**	Not applicable
(7)	**Cooling Method:**	Not applicable
(8)	**Total Site Area:**	Not applicable
(9)	**Construction Status:**	P (Planned Unit)
(10)	**Certification Status:**	---
(11)	**Status with Federal Agencies:**	---
(12)	**Projected Unit Performance Data:**	
	Planned Outage Factor (POF):	Not applicable
	Forced Outage Factor (FOF):	Not applicable
	Equivalent Availability Factor (EAF):	Not applicable
	Resulting Capacity Factor (%):	TBD
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable
(13)	**Projected Unit Financial Data**	
	Book Life (Years):	30 years
	Total Installed Cost (2022 $/kW):	TBD
	Direct Construction Cost ($/kW):	TBD
	AFUDC Amount (2022 $/kW):	TBD
	Escalation ($/kW):	TBD
	Fixed O&M ($/kW-Yr.): (2022 $)	TBD
	Variable O&M ($/MWH): (2022 $)	TBD
	K Factor:	TBD

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Unsited PV
(2)	**Capacity**	
	a. Nameplate (AC)	894 MW (in twelve 74.5 MW increments)
	b. Summer Firm (AC)[1/]	347 MW (Approximately)
	c. Winter Firm (AC)	-
(3)	**Technology Type:**	Photovoltaic (PV)
(4)	**Anticipated Construction Timing**	
	a. Field construction start-date:	2022
	b. Commercial In-service date:	1st Q, 2023 [2/]
(5)	**Fuel**	
	a. Primary Fuel	Solar
	b. Alternate Fuel	Not applicable
(6)	**Air Pollution and Control Strategy:**	Not applicable
(7)	**Cooling Method:**	Not applicable
(8)	**Total Site Area:**	Not applicable
(9)	**Construction Status:**	P (Planned Unit)
(10)	**Certification Status:**	---
(11)	**Status with Federal Agencies:**	---
(12)	**Projected Unit Performance Data:**	
	Planned Outage Factor (POF):	Not applicable
	Forced Outage Factor (FOF):	Not applicable
	Equivalent Availability Factor (EAF):	Not applicable
	Resulting Capacity Factor (%):	TBD
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable
	Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable
(13)	**Projected Unit Financial Data**	
	Book Life (Years):	30 years
	Total Installed Cost (2023 $/kW):	TBD
	Direct Construction Cost ($/kW):	TBD
	AFUDC Amount (2023 $/kW):	TBD
	Escalation ($/kW):	TBD
	Fixed O&M ($/kW-Yr.): (2023 $)	TBD
	Variable O&M ($/MWH) (2023 $)	TBD
	K Factor:	TBD

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Unsited PV

(2) **Capacity**
a. Nameplate (AC) 745 MW (in ten 74.5 MW increments)
b. Summer Firm (AC)[1/] 289 MW (Approximately)
c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2023
b. Commercial In-service date: 1st Q, 2024 [2/]

(5) **Fuel**
a. Primary Fuel Solar
b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** Not applica Acres

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	TBD
Average Net Operating Heat Rate (ANOHR):	Not applicable
Base Operation 75F,100%	
Average Net Incremental Heat Rate (ANIHR):	Not applicable
Peak Operation 75F,100%	

(13) **Projected Unit Financial Data**

Book Life (Years):	30 years
Total Installed Cost (2024 $/kW):	TBD
Direct Construction Cost ($/kW):	TBD
AFUDC Amount (2024 $/kW):	TBD
Escalation ($/kW):	TBD
Fixed O&M ($/kW-Yr.): (2024 $)	TBD
Variable O&M ($/MWH): (2024 $)	TBD
K Factor:	TBD

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Unsited PV

(2) **Capacity**

a. Nameplate (AC) 1,043 MW (in four teen 74.5 MW increments)

b. Summer Firm (AC)[1/] 405 MW (Approximately)

c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date: 2024

b. Commercial In-service date: 1st Q, 2025

(5) **Fuel**

a. Primary Fuel Solar

b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** Not applicable

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	TBD
Average Net Operating Heat Rate (ANOHR):	Not applicable
Base Operation 75F,100%	
Average Net Incremental Heat Rate (ANIHR):	Not applicable
Peak Operation 75F,100%	

(13) **Projected Unit Financial Data**

Book Life (Years):	30 years
Total Installed Cost (2025 $/kW):	TBD
Direct Construction Cost ($/kW):	TBD
AFUDC Amount (2025 $/kW):	TBD
Escalation ($/kW):	TBD
Fixed O&M ($/kW-Yr.): (2025 $)	TBD
Variable O&M ($/MWH): (2025 $)	TBD
K Factor:	TBD

1/ The value show n represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL w ill continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning w ork.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1)	**Plant Name and Unit Number:**	Unsited 3x1 Combined Cycle	
(2)	**Capacity**		
	a. Summer	1,886 MW	
	b. Winter	1,880 MW	
(3)	Technology Type: Combined Cycle		
(4)	**Anticipated Construction Timing**		
	a. Field construction start-date:	2024	
	b. Commercial In-service date:	2026	
(5)	**Fuel**		
	a. Primary Fuel		Natural Gas
	b. Alternate Fuel		Ultra-low sulfur distillate
(6)	**Air Pollution and Control Strategy:**		Dry Low NO_x Burners, SCR, Natural Gas, 0.0015% S. Distillate and Water Injection
(7)	**Cooling Method:**		Mechanical Draft Cooling Towers
(8)	**Total Site Area:**	TBD	Acres
(9)	**Construction Status:**	P	(Planned Unit)
(10)	**Certification Status:**	---	
(11)	**Status with Federal Agencies:**	---	
(12)	**Projected Unit Performance Data:**		
	Planned Outage Factor (POF):		3.5%
	Forced Outage Factor (FOF):		1.0%
	Equivalent Availability Factor (EAF):		95.5%
	Resulting Capacity Factor (%):		Approx. 80% (First Full Year Base Operation)
	Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%		6,134
	Average Net Incremental Heat Rate (ANIHR): Wet Compression 75F,100%		8,045
(13)	**Projected Unit Financial Data *,****		
	Book Life (Years):		30 years
	Total Installed Cost (2026 $/kW):		674
	Direct Construction Cost (2026 $/kW):		606
	AFUDC Amount (2026 $/kW):		68
	Escalation ($/kW):		Accounted for in Direct Construction Cost
	Fixed O&M (2026 $/kW-Yr.):		23.04
	Variable O&M (2026 $/MWH):		0.17
	K Factor:		1.53

* $/kW values are based on Summer capacity.

** Levelized value for Fixed O&M also includes Capital Replacement

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

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Unsited PV

(2) **Capacity**
a. Nameplate (AC) 894 MW (in twelve 74.5 MW increments)
b. Summer Firm (AC)[1/] 347 MW (Approximately)
c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**
a. Field construction start-date: 2026
b. Commercial In-service date: 1^{st} Q, 2027 [2/]

(5) **Fuel**
a. Primary Fuel Solar
b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** Not applicable

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	TBD
Average Net Operating Heat Rate (ANOHR): Base Operation 75F,100%	Not applicable
Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%	Not applicable

(13) **Projected Unit Financial Data**

Book Life (Years):	30 years
Total Installed Cost (2027 $/kW):	TBD
Direct Construction Cost ($/kW):	TBD
AFUDC Amount (2027 $/kW):	TBD
Escalation ($/kW):	TBD
Fixed O&M ($/kW-Yr.): (2027 $)	TBD
Variable O&M ($/MWH): (2027 $)	TBD
K Factor:	TBD

1/ The value show n represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL w ill continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning w ork.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 9

Status Report and Specifications of Proposed Generating Facilities

(1) **Plant Name and Unit Number:** Unsited PV

(2) **Capacity**

a. Nameplate (AC) 1,192 MW (in sixteen 74.5 MW increments)

b. Summer Firm (AC)[1/] 321 MW (Approximately)

c. Winter Firm (AC) -

(3) **Technology Type:** Photovoltaic (PV)

(4) **Anticipated Construction Timing**

a. Field construction start-date: 2027

b. Commercial In-service date: 1st Q, 2028 [2/]

(5) **Fuel**

a. Primary Fuel Solar

b. Alternate Fuel Not applicable

(6) **Air Pollution and Control Strategy:** Not applicable

(7) **Cooling Method:** Not applicable

(8) **Total Site Area:** Not applicable

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

(10) **Certification Status:** ---

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

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

Planned Outage Factor (POF):	Not applicable
Forced Outage Factor (FOF):	Not applicable
Equivalent Availability Factor (EAF):	Not applicable
Resulting Capacity Factor (%):	TBD
Average Net Operating Heat Rate (ANOHR):	Not applicable
Base Operation 75F,100%	
Average Net Incremental Heat Rate (ANIHR):	Not applicable
Peak Operation 75F,100%	

(13) **Projected Unit Financial Data**

Book Life (Years):	30 years
Total Installed Cost (2028 $/kW):	TBD
Direct Construction Cost ($/kW):	TBD
AFUDC Amount (2028 $/kW):	TBD
Escalation ($/kW):	TBD
Fixed O&M ($/kW-Yr.): (2028 $)	TBD
Variable O&M ($/MWH) (2028 $)	TBD
K Factor:	TBD

1/ The value shown represents FPL's current projection of the firm capacity of this amount of incremental PV assuming the planned PV additions in prior years. As the amount of PV on FPL's system increases, the remaining Summer load not served by solar is altered so that the remaining Summer peak load moves to later in the day. Because the amount of solar energy diminishes in these later hours, the firm capacity value of the incremental solar is decreased. FPL will continue to analyze the projected impacts of increasing amounts of PV in its on-going resource planning work.

2/ The in-service date of this PV addition is reflected in table ES-1 or Schedule 7.1.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Babcock Preserve Solar Energy Center (Charlotte County)

The Babcock Preserve Solar Energy Center will require a 230 kV transmission line extending from FPL's existing Tuckers substation approximately 1 mile east to a new Curry substation.

(1) Point of Origin and Termination:	Tuckers 230 kV substation to new Curry Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1 mile (string-bus)
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Curry Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Blue Heron Solar Energy Center (Hendry County)

The Blue Heron Solar Energy Center will require bifurcating the existing FPL Athens-McCarthy 138 kV transmission line section and extending two parallel sections approximately 0.05 mile north to loop the new Citron substation.

(1) Point of Origin and Termination:	Athens-McCarthy 138 kV line to Citron Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.05 mile
(5) Voltage:	138 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Citron Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Cattle Ranch Solar Energy Center (DeSoto County)

The Cattle Ranch Solar Energy Center require a 230 kV transmission line extending from FPL's existing Solaris substation approximately 1.5 miles to a new Gleam Substation.

(1) Point of Origin and Termination:	Solaris 230 kV substation to new Gleam Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1.5 miles
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Gleam Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Northern Preserve Solar Energy Center (Baker County)

The Northern Preserve Solar Energy Center will require removing the Wiremill Tap on the existing FPL Raven-Macedonia (Georgia Transmission Company, GTC) 115 kV transmission tie line between the Raven-Wiremill Tap section and extending a line section approximately 0.7 mile north to loop the new Timber 115 kV substation.

(1) Point of Origin and Termination:	Wiremill Tap 115 kV line to Timber Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.7 mile
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Timber Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Sweetbay Solar Energy Center (Martin County)

The Sweetbay Solar Energy Center will require bifurcating the existing FPL Martin-Indiantown 230 kV transmission line between the Platt-Indiantown section and extending two parallel sections approximately 0.05 mile to loop the new Holstein Substation.

(1) Point of Origin and Termination:	Platt-Indiantown 230 kV line section to Holstein Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.05 mile
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Holstein Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Twin Lakes Solar Energy Center (Putnam County)

The Twin Lakes Solar Energy Center will require bifurcating the existing FPL Putnam-Bradford 115 kV transmission line between the Manville-Francis section and extending two parallel sections approximately 1 mile south to loop the new Steer Substation.

(1) Point of Origin and Termination:	Manville-Francis 115 kV line section to Steer Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1 mile (double-circuit)
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Steer Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Echo River Solar Energy Center (Suwannee County)

The Echo River Solar Energy Center will require bifurcating the existing Suwannee (Duke Energy Florida, DEF) – Columbia (FPL) 115 kV tie line between FPL's Wellborn-Live Oak section, looping the new Hogan Substation.

(1) Point of Origin and Termination:	Wellborn-Live Oak 115 kV line section to Hogan Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.05 miles
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Hogan Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Hibiscus Solar Energy Center (Palm Beach County)

The Hibiscus Solar Energy Center will require bifurcating the FPL Ranch-Corbett 230 kV line approximately 1-mile west of FPL's Westlake substation to loop into the new Minto Substation.

(1) Point of Origin and Termination:	Westlake-Corbett 230 kV line section to Minto Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.07 miles
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Minto Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Okeechobee Solar Energy Center (Okeechobee County)

The Okeechobee Solar Energy Center will connect to the new Okeechobee Next Generation Clean Energy Center project and does not require any new transmission lines.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Southfork Solar Energy Center (Manatee County)

The Southfork Solar Energy Center will require bifurcating the existing FPL Manatee-Keentown 230 kV transmission line looping the new Duette substation.

(1) Point of Origin and Termination:	Manatee-Keentown 230 kV line to Duette Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.15 mile
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2019 End date: 2019
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Duette Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Egret Solar Energy Center (Baker County)

The Egret Solar Energy Center will require bifurcating the existing FPL Duval-Raven 230 kV transmission line and extending two parallel sections approximately 2 miles to loop the new Claude Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	Duval-Raven 230 kV line to Claude Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	2 miles (double-circuit)
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: Early 2020 End date: Late 2020
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Claude Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Lakeside Solar Energy Center (Okeechobee County)

The Lakeside Solar Energy Center will require bifurcating the existing FPL Martin-Sherman 230 kV transmission line and looping the new Nubbin Substation adjacent to the existing line.

(1) Point of Origin and Termination:	Martin-Sherman 230 kV line to Nubbin Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	300 feet
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: Early 2020 End date: Late 2020
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Nubbin Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Magnolia Springs Solar Energy Center (Clay County)

The Magnolia Springs Solar Energy Center will require bifurcating the existing Seminole Plant-Springbank 230 kV transmission line between the Titanium-Green Cove Springs section and extending two parallel sections approximately 0.1 mile to loop a new Leno substation.

(1) Point of Origin and Termination:	Titanium-Green Cove Springs 230 kV line section to Leno substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.1 mile
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: Early 2020 End date: Late 2020
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Leno Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Pelican Solar Energy Center (St. Lucie County)

The Pelican Solar Energy Center will require extending a 230 kV transmission line from Eldora Substation to the new Morrow Substation to connect the solar PV inverter array.

(1) Point of Origin and Termination:	Eldora 230 kV Substation to Morrow Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1.25 miles
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: Early 2020 End date: Late 2020
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Morrow Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Rodeo Solar Energy Center (DeSoto County)

The Rodeo Solar Energy Center will connect to the Gleam substation at the new Cattle Ranch Solar Energy Center and does not require any new transmission lines.

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Discovery Solar Energy Center (Brevard County)

The Discovery Solar Energy Center will require bifurcating the existing FPL C5-Barna 115 kV transmission line and looping the new Rocket Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	C5-Barna kV line to Rocket Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	300 feet
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: Early 2020 End date: Late 2020
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Rocket Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Manatee County Site (Manatee County)

The Manatee County Site will require bifurcating the existing FPL Keentown-Manatee 230 kV transmission line to connect a new substation (TBD) and the solar PV inverter array.

(1) Point of Origin and Termination:	Keentown-Manatee 230 kV line to new (TBD) Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	TBD
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: TBD
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	(TBD) Substation
(9) Participation with Other Utilities:	None

Schedule 10

Status Report and Specifications of Proposed Transmission Lines

Nassau Solar Energy Center (Nassau County)

The Nassau Solar Energy Center will require bifurcating the existing FPL Duval-Yulee 230 kV transmission line between the Duval-West Nassau (GTC) section and extending two parallel sections approximately 1 mile to loop the new Crawford Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	Duval-West Nassau (GTC) 230 kV line to Crawford Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1 mile (double-circuit)
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Crawford Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Orange Blossom Solar Energy Center (Indian River County)

The Orange Blossom Solar Energy Center will connect to the existing FPL Eldora-Heritage 230 kV transmission line via a line switch to connect the new Finca Substation and the solar PV inverter array.

(1) Point of Origin and Termination:	None
(2) Number of Lines:	0
(3) Right-of-way	N/A
(4) Line Length:	0
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Finca Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Palm Bay Solar Energy Center (Brevard County)

The Palm Bay Solar Energy Center will require bifurcating the existing FPL Midway-Malabar 230 kV transmission line between the Glendale-Hield section and extending two parallel sections approximately 2.5 miles to loop the new Hayward Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	Glendale-Hield 230 kV line to Hayward Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	2.5 miles (double-circuit)
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Hayward Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Putnam County Site (Putnam County)

The Putnam County Site will require bifurcating the existing FPL Bradford-Rice 230 kV transmission line to connect a new substation (TBD) and the solar PV inverter array.

(1) Point of Origin and Termination:	Bradford-Rice 230 kV line to (TBD) Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	TBD
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	(TBD) Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Sabal Palm Solar Energy Center (Palm Beach County)

The Sabal Palm Solar Energy Center will require extending a transmission line from the Minto Substation approximately 1.5 miles to connect the new Costa Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	Minto Substation to Costa Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1.5 miles
(5) Voltage:	230 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Costa Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Trailside Solar Energy Center (St. Johns County)

The Trailside Solar Energy Center will require bifurcating the existing FPL Putnam-St. Johns 115 kV transmission line between the Elkton-St. Johns section and extending two parallel sections approximately 1 mile to loop the new Moccasin Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination:	Elkton-St. Johns 115 kV line to Moccasin Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	1 mile (double-circuit)
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: Early 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Moccasin Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Union Springs Solar Energy Center (Union County)

The Union Springs Solar Energy Center will require bifurcating the existing FPL Raven-Bradford 115 kV transmission line between the Bradford-Lake Butler section and extending two parallel sections approximately 0.1 mile to loop the new Plum Substation.

(1) Point of Origin and Termination:	Bradford-Lake Butler 115 kV line section to Plum Substation
(2) Number of Lines:	1
(3) Right-of-way	FPL – Owned
(4) Line Length:	0.1 mile
(5) Voltage:	115 kV
(6) Anticipated Construction Timing:	Start date: 2020 End date: 2021
(7) Anticipated Capital Investment: (Trans. and Sub.)	Included in total installed cost on Schedule 9
(8) Substations:	Plum Substation
(9) Participation with Other Utilities:	None

Schedule 10
Status Report and Specifications of Proposed Transmission Lines

Lauderdale Modernization (Dania Beach Clean Energy Center Unit 7)

The Lauderdale Modernization (Dania Beach Clean Energy Center Unit 7) does not require any new transmission lines.

Schedule 11.1

Existing Firm and Non-Firm Capacity and Energy by Primary Fuel Type
Actuals for the Year 2018

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Net (MW) Capability				NEL	Fuel Mix
	Generation by Primary Fuel	**Summer (MW)**	**Summer (%)**	**Winter (MW)**	**Winter (%)**	**GWh (2)**	**%**
(1)	Coal	634	2.6%	635	2.4%	2,586	2.1%
(2)	Nuclear	3,479	14.0%	3,570	13.6%	28,176	23.0%
(3)	Residual	0	0.0%	0	0.0%	248	0.2%
(4)	Distillate	108	0.4%	123	0.5%	129	0.1%
(5)	Natural Gas	19,297	77.8%	20,680	78.6%	91,213	74.5%
(6)	Solar (Firm & Non-Firm)	855	3.4%	855	3.2%	1,887	1.5%
(7)	***FPL Existing Units Total (1) :***	***24,373***	***98.2%***	***25,862***	***98.3%***	***124,240***	***101.5%***
(8)	Renewables (Purchases)- Firm	114.0	0.5%	114.0	0.5%	892	0.7%
(9)	Renewables (Purchases)- Non-Firm	Not Applicable	---	Not Applicable	---	161	0.1%
(10)	***Renewable Total:***	114.0	0.5%	114.0	0.5%	1,053	0.86%
(11)	***Purchases Other / (Sales) :***	330.0	1.3%	330.0	1.3%	(2,846)	-2.3%
(12)	***Total :***	*24,816.7*	*100.0%*	*26,306.1*	*100.0%*	*122,447*	*100.0%*

Note:

(1) FPL Existing Units Total values on row (7), columns (2) and (4), match the Total System Generating Capacity values found on Schedule 1 for Summer and Winter.

(2) Net Energy for Load GWh values on row (12), column (6), matches Schedule 6.1 value for 2018.

Schedule 11.2

Existing Non-Firm Self-Service Renewable Generation Facilities
Actuals for the Year 2018 [1/]

(1)	(2)	(3)	(4)	(5)	(6) = (3)+(4)-(5)
Type of Facility	Installed Capacity DC (MW)	Renewable Projected Annual Output (MWh) [2/]	Annual Energy Purchased from FPL (MWh) [3/]	Annual Energy Sold to FPL - Total (MWh) [4/]	Projected Annual Energy Used by Customers [6/]
Customer-Owned Renewable Generation (0 kW to 10 kW)	72.23	99,671	370,004	31,954	437,721
Customer-Owned Renewable Generation (> 10 kW to 100 kW)	24.96	34,096	274,284	8,337	300,043
Customer-Owned Renewable Generation (> 100 kW - 2 MW)	25.47	78,070	299,144	6,701	370,513
Totals	122.66	211,837	943,432	46,992	1,108,277

1/ There w ere approximately 11,212 customers w ith renew able generation facilities interconnected w ith FPL on December 31, 2018, and a total of 11,580 customers throughout 2018.

2/ The Projected Annual Output value is based on NREL's PV Watts 1 program and uses the Installed Capacity value in column (2), adjusted for the date w hen each facility w as installed and assuming each facility operated as planned.

3/ The Annual Energy Purchased from FPL is an actual value from FPL's metered data for 2018.

4/ The Annual Energy Sold to FPL - Total is an actual value from FPL's metered data for 2018. These are the total MWh that w ere "overproduced" by the customer each month-throughout 2018.

5/ The Projected Annual Energy Used by Customers is a projected value that equals:
(Renew able Projected Annual output + Annual Energy Purchased) minus the Annual Energy Sold to FPL - Total).

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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

Clean, affordable energy is the lifeblood of Florida's growing population, expanding economy, and environmental resource restoration and management. Through its commitment to environmental excellence, FPL is helping to solve Florida's energy challenges sustainably and responsibly. With one of the cleanest, most efficient power-generation fleets in the nation, FPL has reduced its use of oil, including foreign oil, by approximately 98 percent – from approximately 40 million barrels annually in 2001 to 0.6 million barrels in 2018. FPL is also the largest producer of solar energy-generated electricity in Florida. At the end of 2018, FPL had approximately 930 MW of solar generation capability on its system which consists of approximately 855 MW of universal solar PV and 75 MW of solar thermal. In this 2019 Site Plan, FPL projects it will have approximately 8,128 MW of solar on its system by the end of the 10-year reporting period (2028) for this Site Plan.

FPL maintains its commitment to environmental stewardship through proactive collaboration with communities and organizations working to preserve Florida's unique habitat and natural resources. The many projects and programs in which FPL actively participates include the creation and management of the Manatee Lagoon – An FPL Eco-Discovery Center, Everglades Mitigation Bank, Crocodile Management Program, and preservation of the Barley Barber Swamp.

FPL and its parent company, NextEra Energy, Inc., have continuously been recognized as leaders among electric utilities for their commitment to the environment – a commitment that is ingrained in their corporate culture. FPL has one of the lowest emissions profiles among U.S. utilities, and its carbon dioxide (CO_2) emission rate in 2018 was approximately 31% lower (cleaner) than the industry national average.

In 2018, Fortune ranked NextEra Energy, Inc. among the top 57 companies globally that "Change the World". The annual list recognizes companies that have had a positive social impact through activities that are part of their core business strategy. NextEra Energy is the only energy company from the Americas named to the 2018 list and one of only two electric companies in the world to be included.

NextEra Energy's Juno Beach, Florida, campus, which includes FPL's headquarters, has achieved the prestigious Leadership in Energy and Environmental Design (LEED) Gold certification for existing buildings. LEED is the U.S. Green Building Council's leading rating system for designating the world's greenest, most energy-efficient, and high-performing buildings. Key achievements that led to the certification include heating, ventilation and air conditioning improvements, lighting upgrades, water management and recycling programs, and changes to specifications for paper, carpet, and other materials.

FPL is committed to environmentally sustainable water use. Nearly 98 percent of the water FPL uses is returned to its original source. Pursuing alternate water sources, such as the use of 27 million gallons per day of treated wastewater for cooling the FPL West County Energy Center, reduces the need to access ground- or surface water resources. Additionally, FPL and Miami-Dade County are in the early stages of collaboration on a potential advanced wastewater treatment facility that would both enable the reuse of up to 60 million gallons per day of county wastewater and clean it further for productive reuse at the FPL Turkey Point Nuclear Generating Station and Turkey Point Unit 5.

In 2018, FPL supported a broad base of environmental organizations with donations, event sponsorships, and memberships. Those organizations include, but were not limited to: Everglades Foundation, The Nature Conservancy, Conservancy of Southwest Florida, Loggerhead Marinelife Center, Inc., Florida Wildflower Foundation, South Florida National Parks Trust, and Audubon state and local chapters.

FPL and NextEra, Inc., employees serve in board and leadership positions for many organizations that focus on environmental restoration, preservation, and stewardship. A partial list of these organizations includes: Florida Fish and Wildlife Conservation Commission, Nature Conservancy in Florida, Grassy Waters Conservancy, Sustainable Florida, Loggerhead Marinelife Center, Everglades Foundation Board and Audubon Florida.

IV.B FPL's Environmental Policy

FPL and its parent company, NextEra Energy, Inc., are committed to remaining an industry leader in environmental protection and stewardship, not only because it makes business sense, but because it is the right thing to do. This commitment to compliance, conservation, communication, and continuous improvement fosters a culture of environmental excellence and drives the sustainable management of its business planning, operations, and daily work.

In accordance with commitments to environmental protection and stewardship, FPL and NextEra Energy, Inc. endeavor to:

Comply:

- Comply with all applicable environmental laws, regulations, and permits
- Proactively identify environmental risks and take action to mitigate those risks

- Pursue opportunities to exceed environmental standards
- Participate in the legislative and regulatory process to develop environmental laws, regulations, and policies that are technically sound and economically feasible
- Design, construct, operate, and maintain facilities in an environmentally sound and responsible manner

Conserve:

- Prevent pollution, minimize waste, and conserve natural resources
- Avoid, minimize, and/or mitigate impacts to habitat and wildlife
- Promote the efficient use of energy, both within our company and in our communities

Communicate:

- Invest in environmental training and awareness to achieve a corporate culture of environmental excellence
- Maintain an open dialogue with stakeholders on environmental matters and performance
- Communicate this policy to all employees and publish it on the corporate website

Continuously Improve:

- Establish, monitor, and report progress toward environmental targets
- Review and update this policy on a regular basis
- Drive continuous improvement through ongoing evaluations of our environmental management system to incorporate lessons learned and best practices.

FPL's parent company, NextEra Energy, Inc., updated this policy in 2013 to reflect changing expectations and ensure that employees are doing the utmost to protect the environment. FPL complies with all environmental laws, regulations, and permit requirements, and it designs, constructs, and operates its facilities in an environmentally sound and responsible manner. FPL also responds immediately and effectively to any known environmental hazards or non-compliance situations. The company's commitment to the environment does not end there. FPL proactively pursues opportunities to perform better than current environmental standards require, including reducing waste and emission of pollutants, recycling materials, and conserving natural resources throughout its operations and day-to-day work activities. FPL also encourages cost-effective, efficient uses of energy, both within the Company and by its customers. These actions are just a few examples of how FPL is committed to the environment.

To ensure FPL is adhering to its environmental commitment, it has developed rigorous environmental governance procedures and programs. These include its Environmental Assurance

Program and Corporate Environmental Governance Council. Through these programs, FPL conducts periodic environmental self-evaluations to verify that its operations comply with environmental laws, regulations, and permit requirements. Regular evaluations also help identify best practices and opportunities for improvement.

IV.C Environmental Management

In order to successfully implement the Environmental Policy, FPL has developed a robust 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, which is described in section IV.D below. Other system components include: executive management support and commitment, dedicated environmental corporate governance program, 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 and/or emergency response, environmental risk assessment/management, environmental regulatory development and tracking, and environmental management information systems.

As part of its commitment, FPL created an enhanced Environmental Data Management Information System (EDMIS). Environmental data management software systems are increasingly viewed as an industry best-management practice to ensure environmental compliance. FPL's top goals for this system are to improve: 1) the flow of environmental data between site operations and corporate services to ensure compliance, and 2) operating efficiencies. In addition, the EDMIS helps to standardize environmental data collection, thus improving external reporting to the public.

IV.D Environmental Assurance Program

FPL's Environmental Assurance Program consists of activities that are designed to evaluate environmental performance, verify compliance with corporate policy as well as legal and regulatory requirements, and communicate results to corporate management. The principal mechanism for pursuing environmental assurance is an environmental audit. An environmental audit is defined as a management tool comprised of a systematic, documented, periodic, and objective evaluation of the performance of the organization and its specific management systems and equipment designed to protect the environment. An environmental audit's primary objective is to facilitate management control of environmental practices and assess compliance with existing environmental regulatory requirements and FPL policies. In addition to FPL facility audits, through the Environmental Assurance Program, the company performs audits of third-party vendors used for recycling and/or disposal of waste generated by FPL operations. Vendor audits provide information used for selecting candidate or incumbent vendors for disposal and recycling needs.

FPL has also implemented a Corporate Environmental Governance System in which quarterly reviews are performed of each business unit deemed to have potential for significant environmental exposure. Quarterly reviews evaluate operations for potential environmental risks and consistency with the company's Environmental Policy. Items tracked during the quarterly reviews include processes for the identification and management of environmental risks, metrics, and indicators and progress / changes since the most recent review.

In addition to periodic environmental audits, FPL's Environmental Construction Compliance Assurance Program provides routine onsite inspections during construction and site-specific environmental training to everyone anticipated to be onsite during construction. Similar to an environmental audit, these inspections are performed to ensure compliance with the requirements of environmental permits, licenses, and FPL policies.

IV.E Environmental Communication and Facilitation

FPL is involved in many efforts to enhance environmental protection through the facilitation of energy efficiency, environmental awareness, and through public education. Some of FPL's 2018 environmental outreach activities are summarized in Table IV.E.1.

Table IV.E.1: 2018 FPL Environmental Outreach Activities

Activity	Count (#)
Visitors to Manatee Lagoon - An FPL Eco-Discovery Center	>153,856
Number of website visits to the Manatee Lagoon website	671,219
Visitors to Manatee Park, Ft. Myers	253,070
Number of website visits to FPL's Environmental & Corporate Responsibility Websites	>67,000
Visitors to Barley Barber Swamp (Treasured Lands Partnership)	441
Visitors to FPL Living Lab, Martin Energy Center Solar & DeSoto Solar Tours	1128
Environmental Brochures Distributed	>70,575
Home Energy Surveys	Field Visits: 20,878 Phone: 17,936 Online:30,369 **Total: 69,183**

IV.F Preferred and Potential Sites

Based upon its projection of future resource needs, FPL has currently identified 27 Preferred Sites and 4 Potential Sites for adding future generation. Some of these sites currently have existing generation. Preferred Sites are those locations where FPL has conducted significant reviews and has either taken action, is committed to take action, or is likely to take action to site new generation. Potential Sites are those with attributes that would support the siting of generation and are under consideration as a location for future generation. The identification of a Potential Site does not necessarily indicate that FPL has made a definitive decision to pursue new generation (or generation expansion or modernization in the case of an existing generation site) at that location, nor does this designation necessarily indicate the that size or technology of a generating resource has been determined. The Preferred Sites and Potential Sites are discussed in separate sections below.

IV.F.1 Preferred Sites

For the 2019 Ten Year Site Plan, FPL has identified 27 Preferred Sites. These include a combination of existing and new sites for the development of solar generation facilities, natural gas combined cycle units, and/or nuclear generation. Sites for a number of solar additions in 2020 have been selected, and these sites are described in this section. Potential sites for possible 2021-on solar additions, plus other types of generation for which sites have been selected, are discussed in the Potential Site section later in this chapter.

These 27 Preferred Sites are presented on the following pages in general chronological order of when resources are projected to be added to the FPL system. In regard to the solar sites discussed below, the first four sites are associated with the Solar Base Rate Adjustment (SoBRA) recovery mechanism approved in FPL's last base rate case. The remaining solar sites are associated with the new SolarTogether program. FPL filed for FPSC approval for the SolarTogether program shortly before this 2019 Site Plan was filed.

In the discussion of each site, the geological features of each site and adjacent area maps are provided as the first two Figures at the end of this chapter. These two Figures are titled Relationship of Regional Hydrogeologic Units to Major Stratigraphic Units, and Florida Regions, respectively.

Preferred Site # 1: Babcock Preserve Solar Energy Center, Charlotte County

	Facility Acerage	**430**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Agricultural production, forested uplands, and prairie wetlands
	Adjacent Areas	Agricultural production, electric generating facility, conservation, forested and non-forested uplands
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately agricultural with some forested uplands and wet prairie.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	The Babcock Preserve Solar site is adjacent to the Babcock Ranch Preserve.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use designation includes agricultural production and power generation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning:Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Permit received: NA Florida Environmental Resources Permit (ERP) received: Pending (12/13/18) County Site Plan Approval: Pending

Preferred Site # 2: Blue Heron Solar Energy Center, Hendry County

	Facility Acerage	**628**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Agricultural production
	Adjacent Areas	Agricultural production and low density residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately agricultural with some forested/shrub wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government land use change from Agriculture to Electrical Generating Facility (EGF).
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning:Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE NW Permit received: November 16, 2018 Florida Environmental Resources Permit (ERP) received: September 12, 2018 Hendry County Comp Plan and PUD Approval: December 11, 2018

Preferred Site # 3: Cattle Ranch Solar Energy Center, DeSoto County

	Facility Acerage	**1,050**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Agricultural production
	Adjacent Areas	Agricultural production, forested and non-forested uplands
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately agricultural with some herbaceous wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use designation: Electrical Generation Facility (EGF).
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning:Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: NA Florida Environmental Resources Permit (ERP) received: November 16, 2018 DeSoto County Comp Plan Amendment Approval: November 27, 2018 DeSoto County Improvement Plan Approval: November 29, 2018

Preferred Site # 4: Northern Preserve Solar Energy Center, Baker County

	Facility Acerage	**558**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pastureland, timber nursery, and field crop
	Adjacent Areas	Pastureland, field crop, and timber nursery
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pastureland with drainage ditches, timber nursery, and field crops. Forested, herbaceous, and shrub marsh wetland areas are also present.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agriculture A, Agriculture B.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) issued: March 28, 2018 USACE Section 404 Permit received: December 12, 2017

Preferred Site # 5: Sweetbay Solar Energy Center, Martin County

	Facility Acerage	**566**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Fixed**
		Reference Maps
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.		**Existing Land Uses**
	Site	Pastureland
	Adjacent Areas	Pastureland and residential
f.		**General Environment Features On and In the Site Vicinity**
1.	Natural Environment	Site is predominantly pastureland with sporadic depressional wetlands. Minimial tree coverage.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Solar power generation is allowed within exisitng Agricultural land use designation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: September 21, 2018 USACE Section 404 received: Pending Martin County Site Plan Approval: Pending

Preferred Site # 6: Twin Lakes Solar Energy Center, Putnam County

	Facility Acerage	**873**
	COD	**January-20**
	For PV facilities: tracking or fixed	**Tracking**
		Reference Maps
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.		**Existing Land Uses**
	Site	Pine plantation
	Adjacent Areas	Pine plantation, pastureland, low density residential
f.		**General Environment Features On and In the Site Vicinity**
1.	Natural Environment	Site is predominately pine plantation with forested and herbaceous wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	Portions of Sweetwater Creek and Alligator Creek are located on the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Planned Unit Development.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: October 17, 2018 Putnam County Rezoning Approval: July 24, 2018

Preferred Site # 7: Echo River Solar Energy Center, Suwannee Country

	Facility Acerage	**802**
	COD	**April-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine plantation and pastureland
	Adjacent Areas	Pine plantation and pastureland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pine plantation and pasture with forested and herbaceous wetland areas.
2.	Listed Species	Listed species known to occur include gopher tortoise. No adverse impacts are anticipated to listed species.
3.	Natural Resources of Regional Significance Status	Rocky Creek runs through the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use designation includes agricultural production and power generation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: N/A Florida Environmental Resources Permit (ERP) received: September 14, 2018 Suwannee County Development Approval: May 15, 2018

Preferred Site # 8: Hibiscus Solar Energy Center, Palm Beach County

	Facility Acerage	**402**
	COD	**April-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Abandoned citrus and pastureland
	Adjacent Areas	Residential, abandoned citrus, and pastureland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site has minimal trees and is mostly comprised of herbaceous grasses. An existing network of irrigation canals is present.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Solar power generation is allowed within exisitng Agricultural land use designation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: August 22, 2018 Florida Environmental Resources Permit (ERP) received: February 13, 2018

Preferred Site # 9: Okeechobee Solar Energy Center, Okeechobee County

	Facility Acerage	**471**
	COD	**April-20**
	For PV facilities: tracking or fixed	**Fixed**
		Reference Maps
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.		**Existing Land Uses**
	Site	Pastureland and fallow crop land
	Adjacent Areas	Pastureland, conservation, and existing electrical transmission
f.		**General Environment Features On and In the Site Vicinity**
1.	Natural Environment	The site is comprised of pastureland, fallow citrus, pine flatwoods, mixed forested wetlands, saw palmetto prairie, and freshwater marsh.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	The Okeechobee Solar site is adjacent to the Ft. Drum Marsh Conservation Area.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use designation includes agricultural production and power generation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning:Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: October 18, 2018 Florida Environmental Resources Permit (ERP) received: September 21, 2018 Okeechobee County Development Approval: July 24, 2018

Preferred Site # 10: Southfork Solar Energy Center, Manatee County

	Facility Acerage	**548**
	COD	**April-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Agricultural production and fallow crop land
	Adjacent Areas	Agricultural production, forested and non-forested uplands
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately agricultural with some forested wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Solar power generation is allowed within exisitng Agricultural land use designation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the SCentral Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning:Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: November 13, 2018 Florida Environmental Resources Permit (ERP) received: September 21, 2018 Manatee County Site Plan Approval: Pending

Preferred Site # 11: Egret Solar Energy Center, Baker County

	Facility Acerage	**676**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine plantation
	Adjacent Areas	Pine plantation and low density residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pine plantation with forested and herbaceous wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agricultural.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: pending USACE Section 404 received: pending Baker County Special Use Approval: pending

Preferred Site # 12: Lakeside Solar Energy Center, Okeechobee County

	Facility Acerage	**692**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pastureland, low density residential
	Adjacent Areas	Pastureland, low density residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly comprised of pastureland with herbaceous wetlands, drainage ditches, and a retention pond.
2.	Listed Species	Listed species known to occur onsite include Audubon's crested caracara, bald eagle, gopher tortoise and Florida burrowing owl. No adverse impacts are anticipated to listed species.
3.	Natural Resources of Regional Significance Status	The Lakeside Solar site is adjacent to the Nubbin Slough and the Nubbin Slough Stormwater Treatment Area.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Rural Estate.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: N/A Florida Environmental Resources Permit (ERP) received: February 15, 2019 Okeechobee County Development Approval: November 9, 2018

Preferred Site # 13: Magnolia Springs Solar Energy Center, Clay County

	Facility Acerage	**850**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine plantation
	Adjacent Areas	Pine plantation and low density residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pine plantation with forested wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agricultural and Conservation.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: February 18, 2019 USACE Section 404 received: N/A Clay County County Comprehensive Plan Amendment Approval: October 23, 2018 Clay County Site Plan Approval: Pending

Preferred Site # 14: Pelican Solar Energy Center, St. Lucie County

	Facility Acerage	**955**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Citrus groves
	Adjacent Areas	Citrus groves, fallow cropland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly citrus groves with levees, forested wetlands, spoil area and retention pond.
2.	Listed Species	Listed species known to forage within surrounding area include Audubon's crested caracara. No adverse impacts are anticipated to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agricultural.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: N/A Florida Environmental Resources Permit (ERP) received: Pending St. Lucie County Development Approval: Pending

Preferred Site # 15: Rodeo Solar Energy Center, DeSoto County

	Facility Acerage	**1,040**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pastureland
	Adjacent Areas	Utilities (solar), cropland and pastureland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is comprised of pastureland, cropland, herbaceous wetlands, forested wetlands, pine flatwoods, shrub and brushland, and other open land.
2.	Listed Species	Listed species known to occur onsite include Audubon's crested caracara and gopher tortoise. No adverse impacts are anticipated to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Rural/Agricultural.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: Pending DeSoto County Development Approval: Pending

Preferred Site # 16: Discovery Solar Energy Center, Brevard County

	Facility Acerage	**491**
	COD	**November-20**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Undeveloped former citrus grove
	Adjacent Areas	Undeveloped and industrial
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately abandoned citrus groves, ditches and scattered forested and herbaceous are now dominated by exotic vegetation
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	The site is adjacent to the Merritt Island National Refuge and adjacent to the Indian River Lagoon.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Site is federal land and therefore exempt from local zoning.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: pending USACE Section 404 received: pending Brevard County Site Plan Approval: N/A

Preferred Site # 17: Manatee County Site, Manatee County

	Facility Acerage	**1,454**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Abandoned agricultural
	Adjacent Areas	Cropland and pastureland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately fallow cropland with drainage ditches/canals. Forested, herbaceous, and shrub marsh wetland areas are also present.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agriculture.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: Pending

Preferred Site # 18: Nassau Solar Energy Center, Nassau County

	Facility Acerage	**1,310**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine plantation
	Adjacent Areas	Pine plantation and low density residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pine plantation with forested wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Industrial.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: pending USACE Section 404 received: pending Nassau County Site Plan Approval: pending

Preferred Site # 19: Orange Blossom Solar Energy Center, Indian River County

	Facility Acerage	**607**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Citrus grove
	Adjacent Areas	Citrus groves, fallow cropland
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly a citrus grove with canals/ditches. The site likely contains no jurisdictional wetlands.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is citrus, plant crops, and grazing.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	0
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: N/A Florida Environmental Resources Permit (ERP) received: Pending Indian River County Approval: Pending

Preferred Site # 20: Palm Bay Solar Energy Center, Brevard County

	Facility Acerage	**486**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Cleared citrus grove that is currently in use as cattle pasture
	Adjacent Areas	Agricultural, forested uplands and wetlands, and single-family residential
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly comprised of agricultural land with herbaceous wetlands and drainage ditches.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Rural Residential.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: Pending City of Palm Bay Development Approval: Pending

Preferred Site # 21: Putnam County Site, Putnam County

	Facility Acerage	**395**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Row Crops
	Adjacent Areas	Low density residential, agricultural, forested uplands and wetlands
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly comprised of row crops with ditches/canals. The site likely contains no jurisdictional wetlands.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agriculture.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the North Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: Pending

Preferred Site # 22: Sabal Palm Solar Energy Center, Palm Beach County

	Facility Acerage	**1,288**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Fixed**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Agricultural Production
	Adjacent Areas	Agriculture, single-family residential, vacant land,
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly comprised of agricultural land with herbaceous wetlands and drainage ditches.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar fixed panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Rural Residential.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: Pending Florida Environmental Resources Permit (ERP) received: Pending Palm Beach County Development Approval: Pending

Preferred Site # 23: Trailside Solar Energy Center, St. Johns County

	Facility Acerage	**846**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine Plantation
	Adjacent Areas	Open Rural
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site is predominantly comprised of pine plantation with freshwater forested wetlands.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	Florida Forever BOT project Matanzas to Ocala Conservation Corridor is located to the site at the southeast corner.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agriculture.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall.
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: January 31, 2019 Florida Environmental Resources Permit (ERP) received: February 7, 2019 St. John's County Development Approval: November 15, 2018 (SUP) and December 12, 2018 (NZV)

Preferred Site # 24: Union Springs Solar Energy Center, Union County

	Facility Acerage	**1,233**
	COD	**March-21**
	For PV facilities: tracking or fixed	**Tracking**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Pine plantation
	Adjacent Areas	Pine plantaton and pine processing facility
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is predominately pine plantation with forested and herbaceous wetland areas.
2.	Listed Species	Due to the existing disturbed nature of the site and lack of suitable onsite habitat, minimal, if any, impacts will occur to listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 74.5 MW solar tracking panel PV facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use for this site is Agricultural.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Existing onsite water resources will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Panhandle Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not applicable for PV Process: Not applicable for PV Potable: Minimal, existing permitted supply Panel Cleaning: Minimal and only in absence of sufficient rainfall
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Solar Process: Not Applicable for Solar Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Solar (PV) does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Solar does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - PV Solar energy generation does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	PV Solar energy generation does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	Florida Environmental Resources Permit (ERP) received: December 19, 2018 USACE Section 404 received: N/A Union County Site Plan Approval: Pending Union County Special Use Exception received: July 16, 2018

Preferred Site # 25: Battery Storage

The battery storage addition/s is projected to be approximately 469 MW. Approximately 409 MW of this storage capacity will be located in Manatee County. It is expected that the battery will, at least in part, be charged by solar energy.

	Facility Acerage	**40**
	COD	**Late 2021**
	For PV facilities: tracking or fixed	**N/A**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Utility power generation
	Adjacent Areas	Utility power generation and agricultural production
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is primarily wooded without improvements.
2.	Listed Species	No adverse impacts are expected due to previous development and lack of suitable onsite habitat for listed species.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The design includes an approximately 400MW, 2.5 hour Battery Storage facility, on-site transmission substation, and site stormwater system. Mitigation for unavoidable impacts, if required, may occur through a combination of on- and off-site mitigation.
h.	**Local Government Future Land Use Designations**	Local government future land use designation is Utilities, requiring modification to include Battery Storage.
i.	**Site Selection Criteria Factors**	The site selection criteria included system load, transmission interconnection, economics, and environmental compatibility (e.g., wetlands, wildlife, threatened and endangered species, etc.).
j.	**Water Resources**	Groundwater will be used to meet water requirements.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter site is located in the Central Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: Not Applicable for Battery Storage Process: Not Applicable for Battery Storage Potable: Minimal, existing permitted supply
m.	**Water Supply Sources by Type**	Cooling: Not Applicable for Battery Storage Process: Not Applicable for Battery Storage Potable and Panel Cleaning: Delivered to Site by Truck or via existing permitted supply.
n.	**Water Conservation Strategies Under Consideration**	Battery Storage does not require a permanent water source. Additional water conservation strategies include selection and planting of low-to-no irrigation grass or groundcover.
o.	**Water Discharges and Pollution Control**	Best Management Practices (BMPs) will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Battery Storage does not require fuel and no waste products will be generated at the site.
q.	**Air Emissions and Control Systems**	Fuel - Battery Storage energy does not use any type of combustion fuel, therefore there will be no air emissions or need for Control Systems. Combustion Control - Not Applicable Combustor Design - Not Applicable
r.	**Noise Emissions and Control Systems**	Battery Storage energy does not emit noise therefore there will be no need for noise control systems.
s	**Status of Applications**	USACE Section 404 Permit received: NA Florida Environmental Resources Permit (ERP) received: Not yet filed, ETA TBD Mantee County PUD Zoning amendment: Not yet filed, ETA TBD

Preferred Site # 26: Lauderdale Modernization (Dania Beach Clean Energy Center Unit 7), Broward County

	Facility Acerage	**134**
	COD	**June-22**
	For PV facilities: tracking or fixed	**N/A**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Electrical generating facilities
	Adjacent Areas	Low to high density urban, transportation, communication, utilities, commercial, water, and conservation
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	Site is comprised of facilities related to power generation.
2.	Listed Species	Listed species known to occur within the cooling pond at the site include the West Indian manatee. No adverse impacts are anticipated to other listed species due to previous development.
3.	Natural Resources of Regional Significance Status	No natural resources of regional significance status at or adjacent to the site.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The project includes dismantlement of existing Units 4 & 5 and replacement with one new approximately 1,163 MW combined cycle unit consisting of two combustion turbines (CTs), two heat recovery steam generators (HRSGs), and a steam turbine. The CTs will operate using natural gas and Ultra-Low Sulfur Distillate.
h.	**Local Government Future Land Use Designations**	The site is zoned General Industrial.
i.	**Site Selection Criteria Factors**	The Lauderdale Plant has been selected as a preferred site for a site modernization 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. However, there are environmental benefits of replacing the existing, outdated combined cycle units with a new highly efficient combined cycle unit, including a significant reduction in system air emissions. In addition, the modernization project at this existing site will not require a new gas pipeline and will make use of the existing transmission facilities and water supply.
j.	**Water Resources**	Condenser cooling for the steam cycle portion of the new combined cycle unit and auxiliary cooling will come from the existing cooling water intake system. Process and potable water for the new unit will come from the existing water supply sources (Broward County and City of Hollywood).
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: No additional water required. Process: No additional water required. Potable: No additional water required. Panel Cleaning: Not Applicable
m.	**Water Supply Sources by Type**	Cooling: As existing, Dania Cut-Off Canal Process: As existing, Broward County Utilities Potable: As existing, City of Hollywood
n.	**Water Conservation Strategies Under Consideration**	No additional water resources are required beyond current usage.
o.	**Water Discharges and Pollution Control**	Continued discharge to the existing cooling pond is anticipated. No increase in water discharge is expected. Best Management Practices will be employed to prevent and control inadvertent release of pollutants.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	Natural gas will be transported via an existing pipeline. ULSD will be trucked to the facility and stored in existing ULSD tanks.
q.	**Air Emissions and Control Systems**	Fuel - Use of cleaner natural gas and Ultra-Low Sulfur Distillate • Natural Gas - Dry-low NOx combustion technology and Selective Catalytic Reduction will control NOx emissions, Greenhouse gas emissions will be substantially lower than the Environmental Protection Agency's proposed new source performance standard. • ULSD - Water injection and selective catalytic reduction will be used to reduce NOx emissions Combustion Control - will minimize formation of sulfur dioxide, particulate matter, nitrogen oxides (NOx), and other fuel-bound contaminate Combustor Design - will limit formation of carbon monoxide and volatile organic compounds
r.	**Noise Emissions and Control Systems**	Noise from the operation of the new unit will be within allowable levels.
s	**Status of Applications**	Need Determination Issued: March 19, 2018 FL Site Certification Recieved: December 13, 2018 PSD Permit Received: December 4, 2017 USACE Section 404 Permit Received: January 7, 2019 IWW Received: December 3, 2018

Preferred Site # 27: Turkey Point Plant, Miami-Dade County

	Facility Acerage	**N/A**
	COD	**N/A**
	For PV facilities: tracking or fixed	**N/A**
	Reference Maps	
a.	**USGS Map**	See Figures at the end of this chapter
b.	**Proposed Facilities Layout**	
c.	**Map of Site and Adjacent Areas**	
d.	**Land Use Map of site and Adjacent Areas**	
e.	**Existing Land Uses**	
	Site	Electrical generating facilities
	Adjacent Areas	Undeveloped, the Everglades Mitigation Bank, South Florida Water Management District Canal L-31E, Biscayne Bay, and state-owned land on Card Sound
f.	**General Environment Features On and In the Site Vicinity**	
1.	Natural Environment	The site includes hypersaline mud flats, man-made active cooling canals and remnant canals, previously filled areas / roadways, mangrove heads associated with historical tidal channels, dwarf mangroves, open water / discharge canal associated with the cooling canals on the western portion of the site, wet spoil berms associated with remnant canals, and upland spoil areas.
2.	Listed Species	Listed species known to occur at the site or associated linear features include the peregrine falcon, wood stork, American crocodile, roseate spoonbill, little blue heron, snowy egret, American oystercatcher, least tern, white ibis, Florida manatee, eastern indigo snake, snail kite, white-crowned pigeon, and bald eagle. Some listed flora species likely to occur include pine pink, Florida brickell-bush, Florida lantana, mullein nightshade, and Lamarck's trema. The construction and operation of Turkey Point Units 6 & 7 are not expected to adversely affect any listed species.
3.	Natural Resources of Regional Significance Status	Significant features in the vicinity of the site include Biscayne Bay, Biscayne National Park, Biscayne Bay Aquatic Preserve, Miami-Dade County Homestead Bayfront Park, and Everglades National Park.
4.	Other Significant Features	FPL is not aware of any other significant features of the site.
g.	**Design Features and Mitigation Options**	The technology proposed is the Westinghouse AP1000 pressurized water reactor. This design is certified by the Nuclear Regulatory Commission under 10 CFR 52. The Westinghouse AP1000 consists of the reactor, steam generators, pressurizer, and steam turbine / electric generator. The projected generating capacity from each unit is 1,100 MW. Condenser cooling will use six circulating water cooling towers. The structures to be constructed include the containment building, shield building, auxiliary building, turbine building, annex building, diesel generator building, and radwaste building. The plant area will also contain the Clear Sky substation (switchyard) that will connect to FPL's transmission system.
h.	**Local Government Future Land Use Designations**	Current future land use designations include Industrial, Utilities, Communications, and Unlimited Manufacturing with a dual designation of Mangrove Protection Area. There are also areas of the site designated Interim District.
i.	**Site Selection Criteria Factors**	Site selection included the following criteria: existing transmission and transportation infrastructure to support new generation, the size and seclusion of the site while being relatively close to the load center, economics, and the long-standing record of safe and secure operation of nuclear generation at the site since the early 1970s.
j.	**Water Resources**	Water requirements will be met by reclaimed water from Miami-Dade County and a back-up supply of saline groundwater from below the marine environment of Biscayne Bay.
k.	**Geological Features of Site and Adjacent Areas**	See Figure at the end of this Chapter. The site is located in the South Florida region.
l.	**Project Water Quantities for Various Uses**	Cooling: 55.3 million gallons per day (mgd) Process: 1.3 mgd Potable: .05 mgd Panel Cleaning: Not Applicable
m.	**Water Supply Sources by Type**	Cooling: Miami-Dade reclaimed water and saline groundwater from Biscayne Bay via radial collector wells Process: Miami-Dade Water and Sewer Department Potable: Miami-Dade Water and Sewer Department
n.	**Water Conservation Strategies Under Consideration**	Turkey Point Units 6 & 7 will use reclaimed water 24 hours per day, 365 days per year when operating and when the reclaimed water is available in sufficient quantity and quality.
o.	**Water Discharges and Pollution Control**	Blowdown water or discharge from the cooling towers, along with other waste streams, 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 released to the closed-loop cooling canal system.
p.	**Fuel Delivery, Storage, Waste Disposal, and Pollution Control**	The Turkey Point Units 6 & 7 reactors will contain enriched uranium fuel assemblies. New fuel assemblies will be transported to Turkey Point for use in Units 6 & 7 by truck from a fuel fabrication facility in accordance with U.S. Department of Transportation (DOT) and NRC regulations. Spent fuel assemblies being discharged will remain in the permitted spent fuel pool while short half-life isotopes decay. After a sufficient decay period, the fuel would be transferred to a permitted on-site independent spent fuel storage installation facility or a permitted off-site disposal facility. Packaging of the fuel for off-site shipment will comply with the applicable DOT and NRC regulations for transportation of radioactive material. The U.S. Department of Energy (DOE) is responsible for spent fuel transportation from reactor sites to a repository under the Nuclear Waste Policy Act of 1982, as amended. FPL has executed a standard spent nuclear fuel disposal contract with DOE for fuel used in Units 6 & 7.

Preferred Site # 27: Turkey Point Plant, Miami-Dade County (cont.)

q.	**Air Emissions and Control Systems**	Fuel - The units will minimize FPL system air pollutant emissions by using nuclear fuel to generate electric power. Combustion Control / Combustor Design - Not Applicable Note: The diesel engines necessary to support Turkey Point Units 6 & 7 and fire pump engines will be purchased from manufacturers whose engines meet the EPA's New Source Performance Standards Subpart IIII emission limits.
r.	**Noise Emissions and Control Systems**	Predicted noise levels associated with these projects are not expected to result in adverse noise impacts in the vicinity of the site.
s	**Status of Applications**	Need Determination Issued: April 2008 FL Site Certification Received: May 14, 2014 USACE Section 404 Permit: Pending COL received: April 5, 2018 Miami-Dade County Unusual Use approvals: issued in 2007 and 2013 Land Use Consistency Determination: issued in 2013 Prevention of Significant Deterioration: issued in 2009

IV.F.2 Potential Sites

Four (4) counties are currently identified as Potential Sites for future generation and storage additions to meet FPL's projected capacity and energy needs.[11] Each of these Potential Sites offers 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 would require further definition and attention. Unless otherwise noted, the water quantities discussed below are in reference to universal solar PV generation rather than for gas-fired generation.

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

Potential Site # 1: Hendry County

FPL is currently evaluating potential sites in Hendry County for future PV facilities. No specific locations have been selected at this time. The site is also a potential site for new gas-fired generation.

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

See Figures at the end of this chapter.

[11] As has been described in previous FPL Site Plans, FPL also considers a number of other locations as possible sites for future generation additions. These include the remainder of FPL's existing generation sites and other greenfield sites. Specific greenfield sites may not be specifically identified as Potential Sites in order to protect the economic interests of FPL and its customers.

b. Existing Land Uses of Site and Adjacent Areas

This information is not available at the time of publication of this report because specific sites have not been definitively selected.

c. Environmental Features

This information is not available at the time of publication of this report because specific sites have not been definitively selected.

d. Water Quantities Required

Cooling: Not Applicable for PV. To be determined (TBD) for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal and only in absence of sufficient rainfall. TBD for new gas-fired generation.

e. Supply Sources

Cooling: Not Applicable for PV. TBD for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal, trucked in if and when needed. TBD for new gas-fired generation.

Potential Site # 2: Martin County

FPL is currently evaluating potential sites in Martin County for a future PV facility. The site is also a potential site for new gas-fired generation. No specific locations have been selected at this time.

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

See Figures at the end of this chapter.

b. Existing Land Uses of Site and Adjacent Areas

This information is not available at the time of publication of this report because a specific site has not been definitively selected.

c. Environmental Features

This information is not available at the time of publication of this report because a specific site has not been definitively selected.

d. Water Quantities Required

Cooling: Not Applicable for PV. TBD for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal and only in absence of sufficient rainfall. TBD for new gas-fired generation.

e. Supply Sources

Cooling: Not Applicable for PV. TBD for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal, trucked in if and when needed. TBD for new gas-fired generation.

Potential Site # 3: Miami-Dade County

FPL is currently evaluating other potential sites in Miami-Dade County for a future PV facility. No specific locations have been selected at this time.

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

See Figures at the end of this chapter.

b. Existing Land Uses of Site and Adjacent Areas

This information is not available at the time of publication of this report because a specific site has not been definitively selected.

c. Environmental Features

This information is not available at the time of publication of this report because a specific site has not been definitively selected.

d. Water Quantities Required

Cooling: Not Applicable for PV

Process: Not Applicable for PV

Potable: Minimal

Panel Cleaning: Minimal and only in absence of sufficient rainfall

e. Supply Sources

Cooling: Not Applicable for PV

Process: Not Applicable for PV

Potable: Minimal

Panel Cleaning: Minimal, trucked in if and when needed

Potential Site # 4: Okeechobee County

FPL is currently evaluating potential sites in Okeechobee County for future PV facilities. The site is also a potential site for new gas-fired generation. No specific locations have been selected at this time.

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

See Figures at the end of this chapter.

b. Existing Land Uses of Site and Adjacent Areas

This information is not available at the time of publication of this report because specific sites have not been definitively selected.

c. Environmental Features

This information is not available at the time of publication of this report because specific sites have not been definitively selected.

d. Water Quantities Required

Cooling: Not Applicable for PV. TBD for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal and only in absence of sufficient rainfall. TBD for new gas-fired generation.

e. Supply Sources

Cooling: Not Applicable for PV. TBD for new gas-fired generation.

Process: Not Applicable for PV. TBD for new gas-fired generation.

Potable: Minimal. TBD for new gas-fired generation.

Panel Cleaning: Minimal, trucked in if and when needed. TBD for new gas-fired generation.

***Environmental and Land Use Information*:**

Supplemental Information

Relationship of Regional Hydrogeologic Units

to Major Stratigraphic Units

and

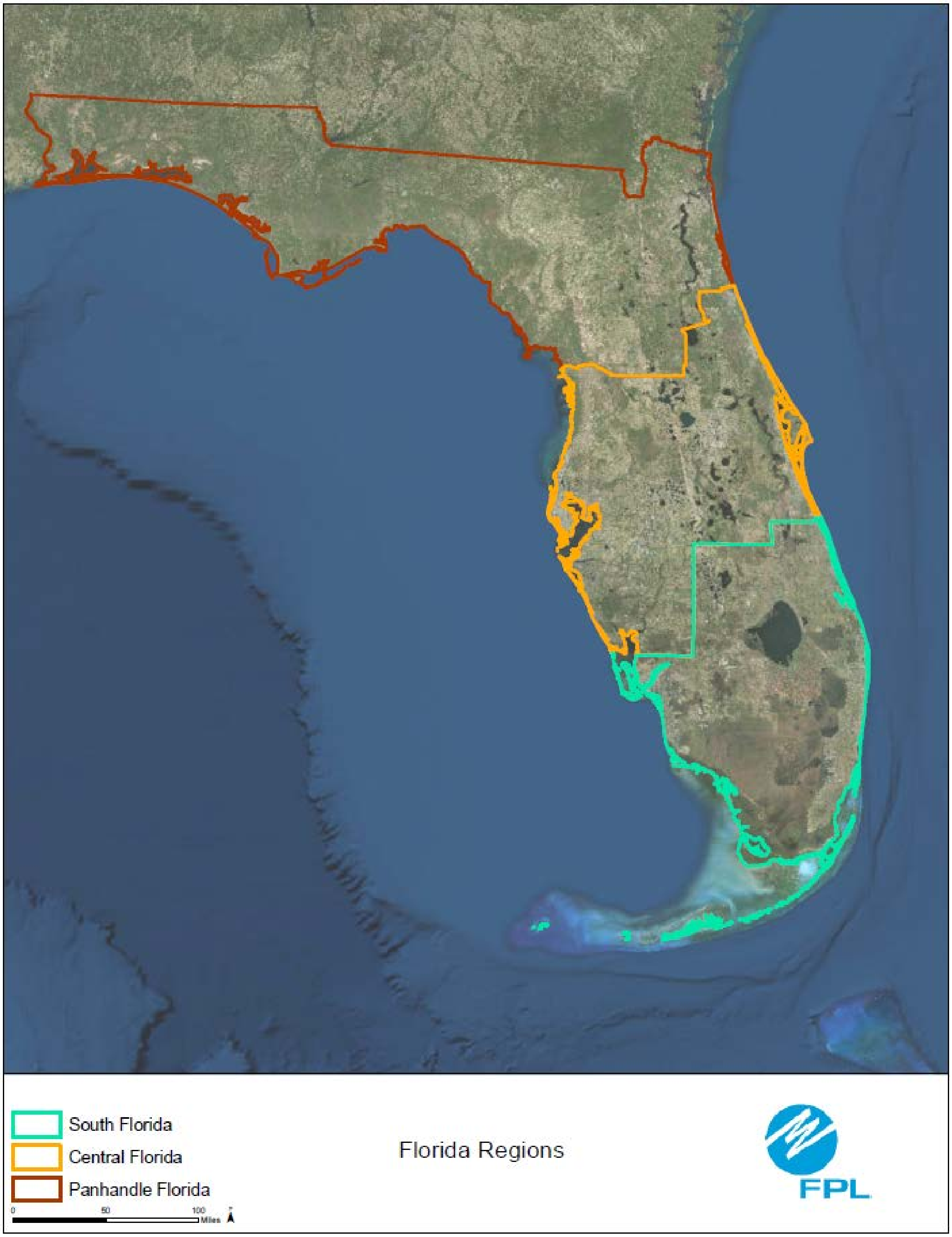
Florida Regions

Relationship of Regional Hydrogeologic Units to Major Stratigraphic Units

		Panhandle Florida		North Florida		South Florida	
System	Series	Stratigraphic Unit	Hydrogeologic Unit	Stratigraphic Unit	Hydrogeologic Unit	Stratigraphic Unit	Hydrogeologic Unit
Quaternary	Holocene	Undifferentiated terrace marine and fluvial deposits	Surficial aquifer system (Sand and Gravel aquifer)	Undifferentiated terrace marine and fluvial deposits	Surficial aquifer system	Terrace Deposits Miami Limestone Key Largo Limestone Anastasia Formation Fort Thompson Formation Caloosahatchee Marl	Surficial aquifer system (Biscayne aquifer)
	Pleistocene						
Tertiary	Pilocene	Citronelle Formation Undifferentiated coarse sand and gravel		Miccosukee Formation Alachua Formation		Tamiami Formation	
	Miocene	Alum Bluff Group Pensacola Clay Intracoastal Formation Hawthorn Group Chipola Formation Bruce Creek Limestone St. Marks Formation Chattahoochee Formation	Intermediate confining unit	Hawthorn Group St. Marks Formation	Intermediate aquifer system or intermediate confining unit	Hawthorn Group	Intermediate aquifer system or intermediate confining unit
	Oligocene	Chickasawhay Limestone Suwannee Limestone Marianna Limestone Bucatunna Clay	Floridan aquifer system	Suwannee Limestone	Floridan aquifer system	Suwannee Limestone	Floridan aquifer system
	Eocene	Ocala Limestone Lisbon Formation Tallahatta Formation Undifferentiated older Rocks		Ocala Limestone Avon Park Formation Oldsmar Formation		Ocala Limestone Avon Park Formation Oldsmar Formation	
	Paleocene	Undifferentiated	Sub-Floridan confining unit	Cedar Keys Formation		Cedar Keys Formation	Sub-Floridan confining unit
Cretaceous and older		Undifferentiated		Undifferentiated	Sub-Floridan confining unit		

Note: This information is referred to in subsection k, Geological Features of Site and Adjacent Areas, for each of the Preferred Sites.

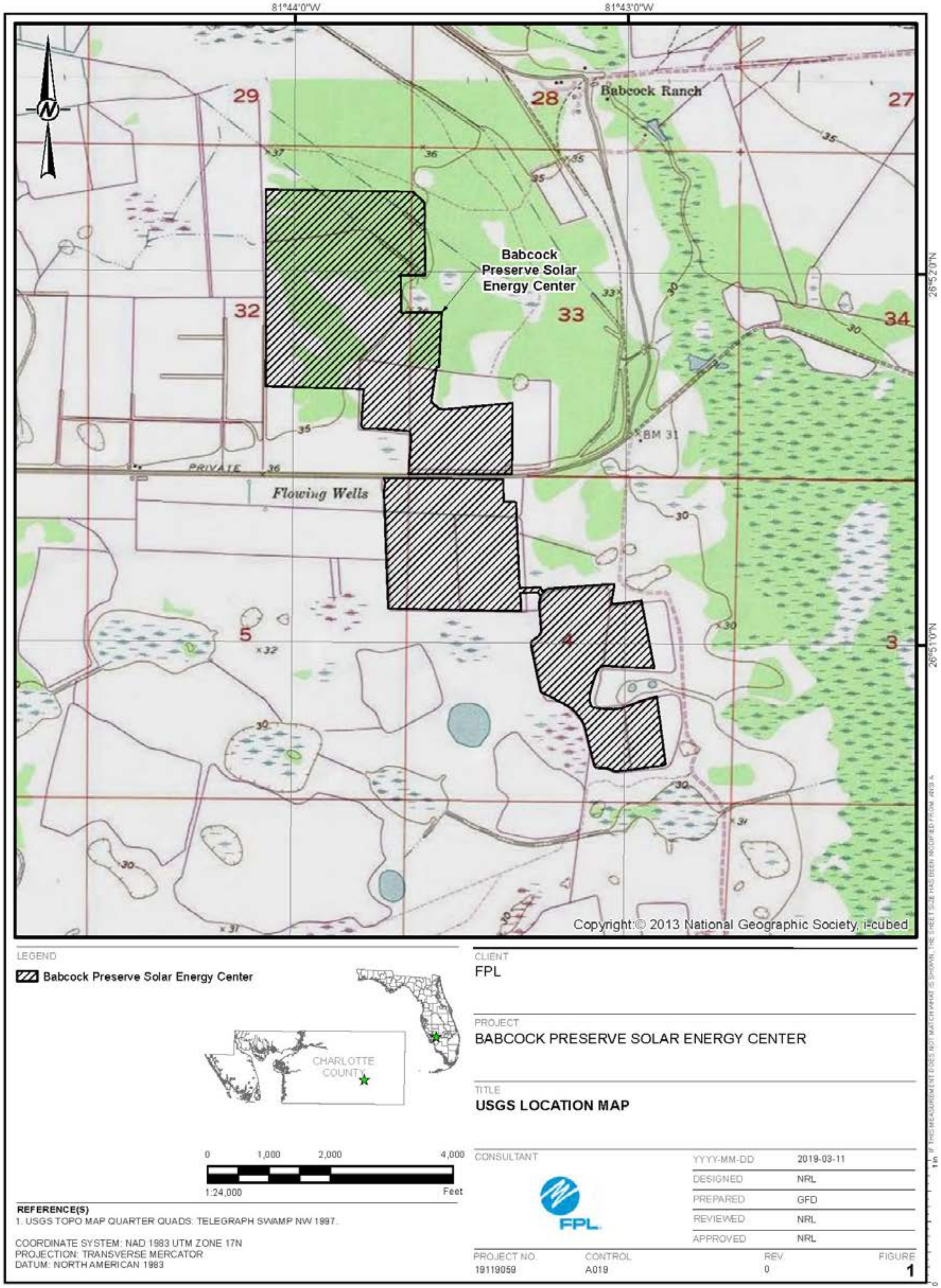
Florida Regions Map



Note: This information is referred to in subsection k, Geological Features of Site and Adjacent Areas, for each of the Preferred Sites.

Environmental and Land Use Information: Supplemental Information

Preferred Site # 1: Babcock Preserve Solar Energy Center, Charlotte County



81°44'0"W
81°43'0"W
26°52'0"N
26°51'0"N
29
28
27
32
33
34
5
3
Babcock Ranch
Babcock Preserve Solar Energy Center
Flowing Wells
PRIVATE
BM 31
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Babcock Preserve Solar Energy Center
CHARLOTTE COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
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COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
BABCOCK PRESERVE SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A019
REV. 0
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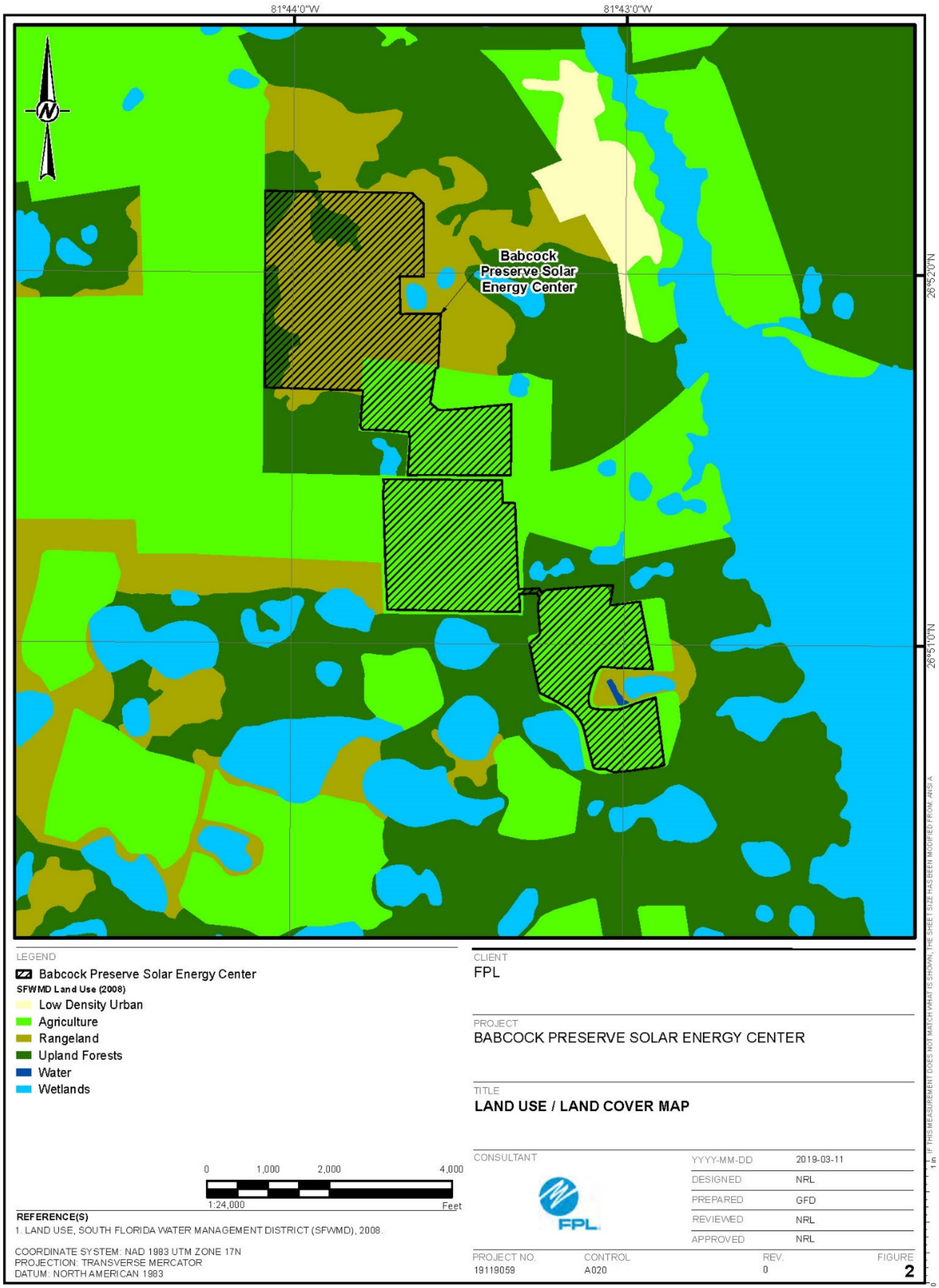
81°44'0"W
81°43'0"W
26°52'0"N
26°51'0"N
N
Babcock Preserve Solar Energy Center
LEGEND
Babcock Preserve Solar Energy Center
SFWMD Land Use (2008)
Low Density Urban
Agriculture
Rangeland
Upland Forests
Water
Wetlands
0 1,000 2,000 4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
BABCOCK PRESERVE SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A020
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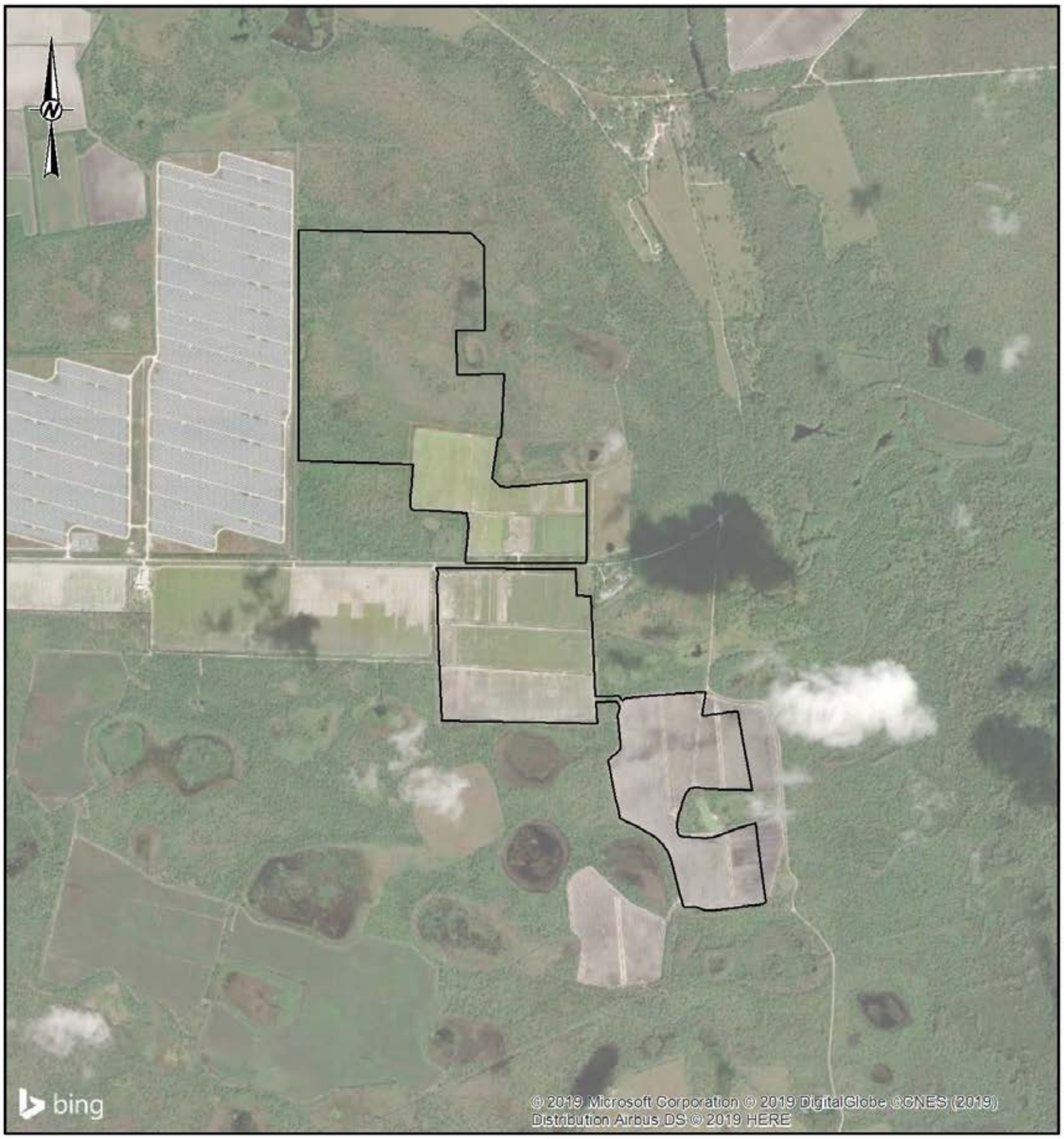
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Babcock Preserve Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
BABCOCK PRESERVE SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

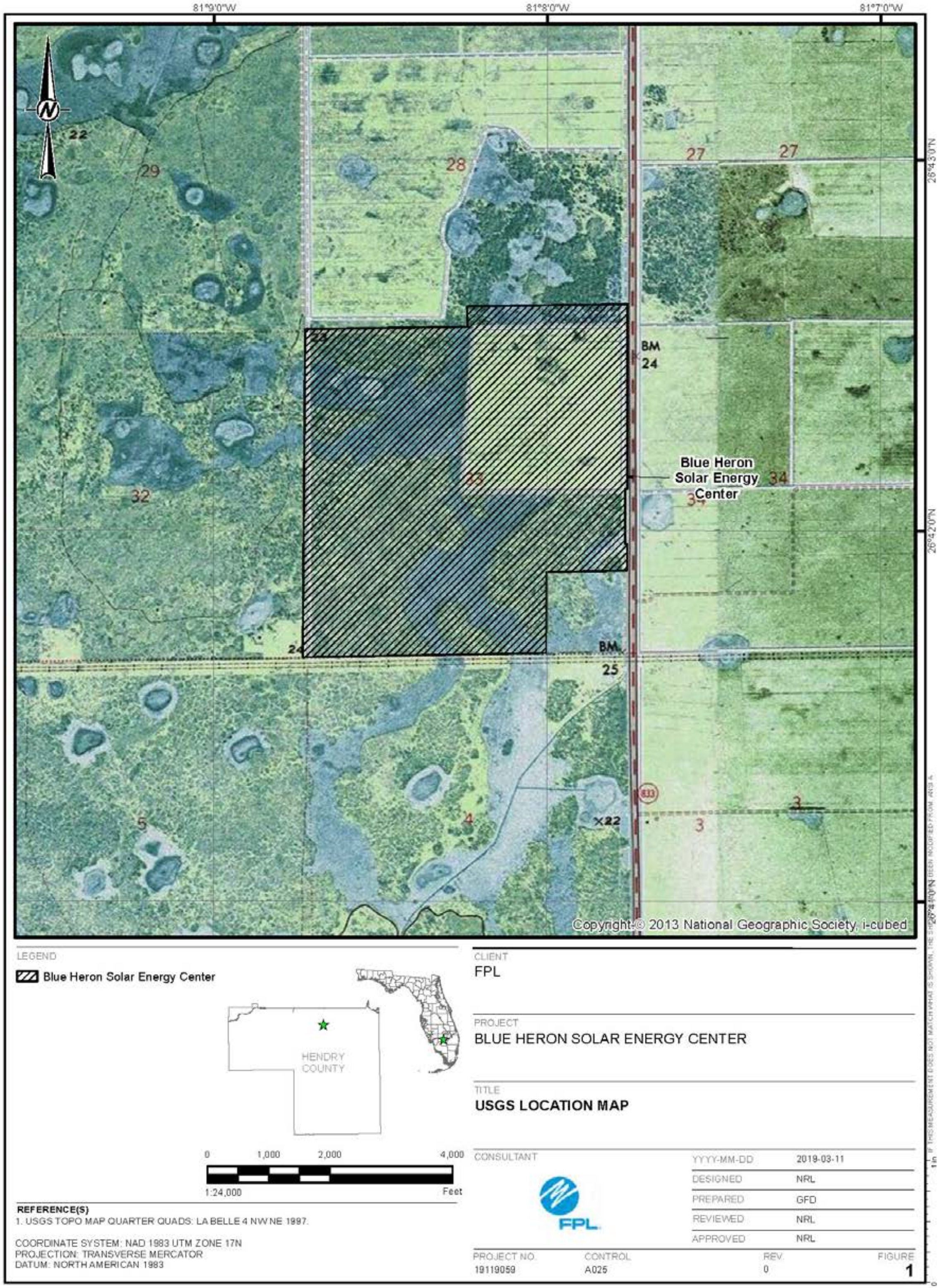
FPL

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A021	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 2: Blue Heron Solar Energy Center, Hendry County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81°8'0"W
81°7'0"W
26°43'0"N
26°42'0"N
22
29
28
27
27
BM
24
Blue Heron
Solar Energy
Center
34
32
33
24
BM
25
5
4
x22
833
3
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Blue Heron Solar Energy Center
HENDRY
COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: LA BELLE 4 NW NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
BLUE HERON SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A025
REV. 0
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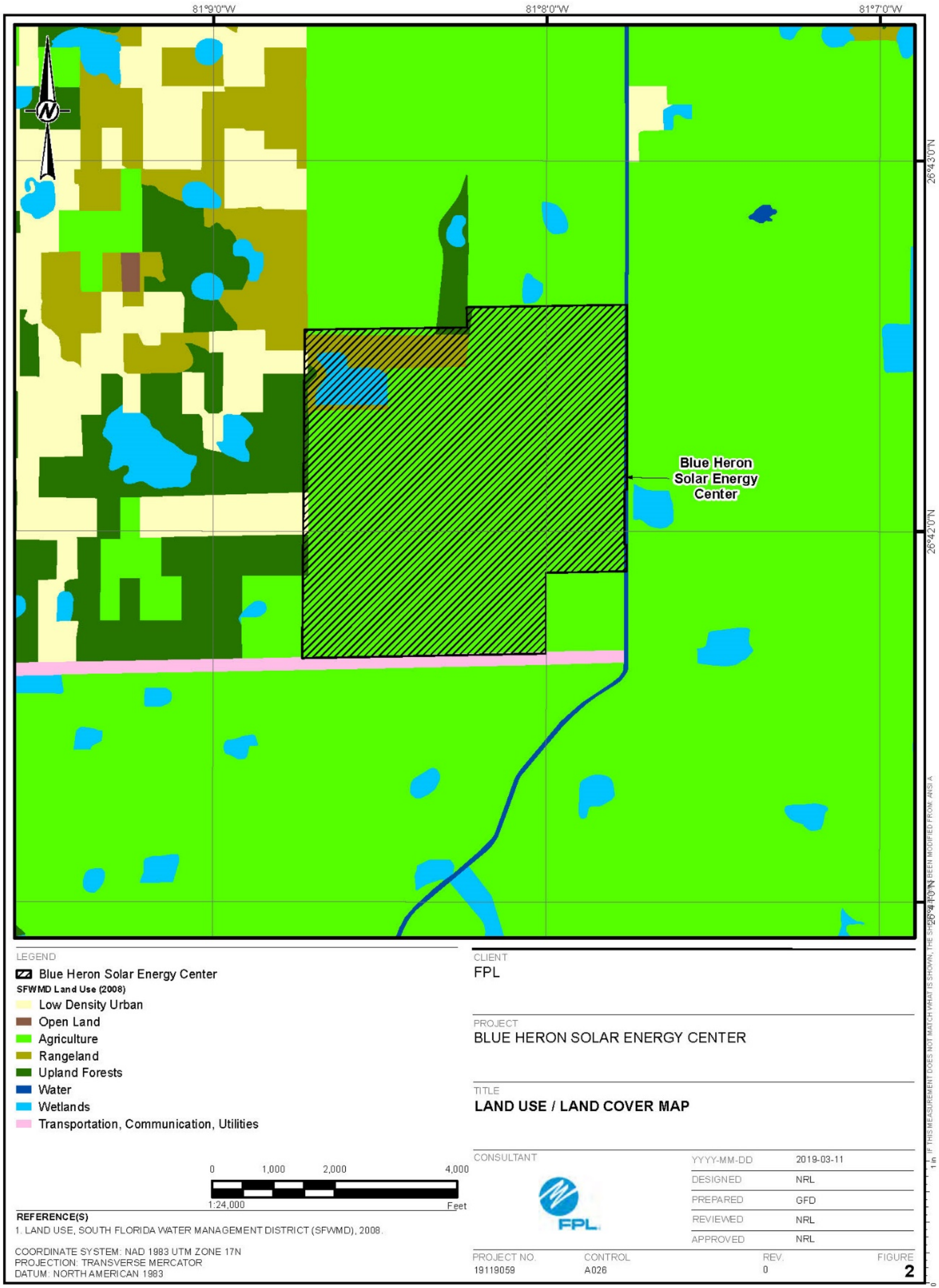

81°9'0"W
81°8'0"W
81°7'0"W
26°43'0"N
26°42'0"N
26°41'0"N
N
Blue Heron Solar Energy Center
LEGEND
Blue Heron Solar Energy Center
SFWMD Land Use (2008)
Low Density Urban
Open Land
Agriculture
Rangeland
Upland Forests
Water
Wetlands
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
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PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
BLUE HERON SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A026
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

LEGEND

Blue Heron Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
BLUE HERON SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

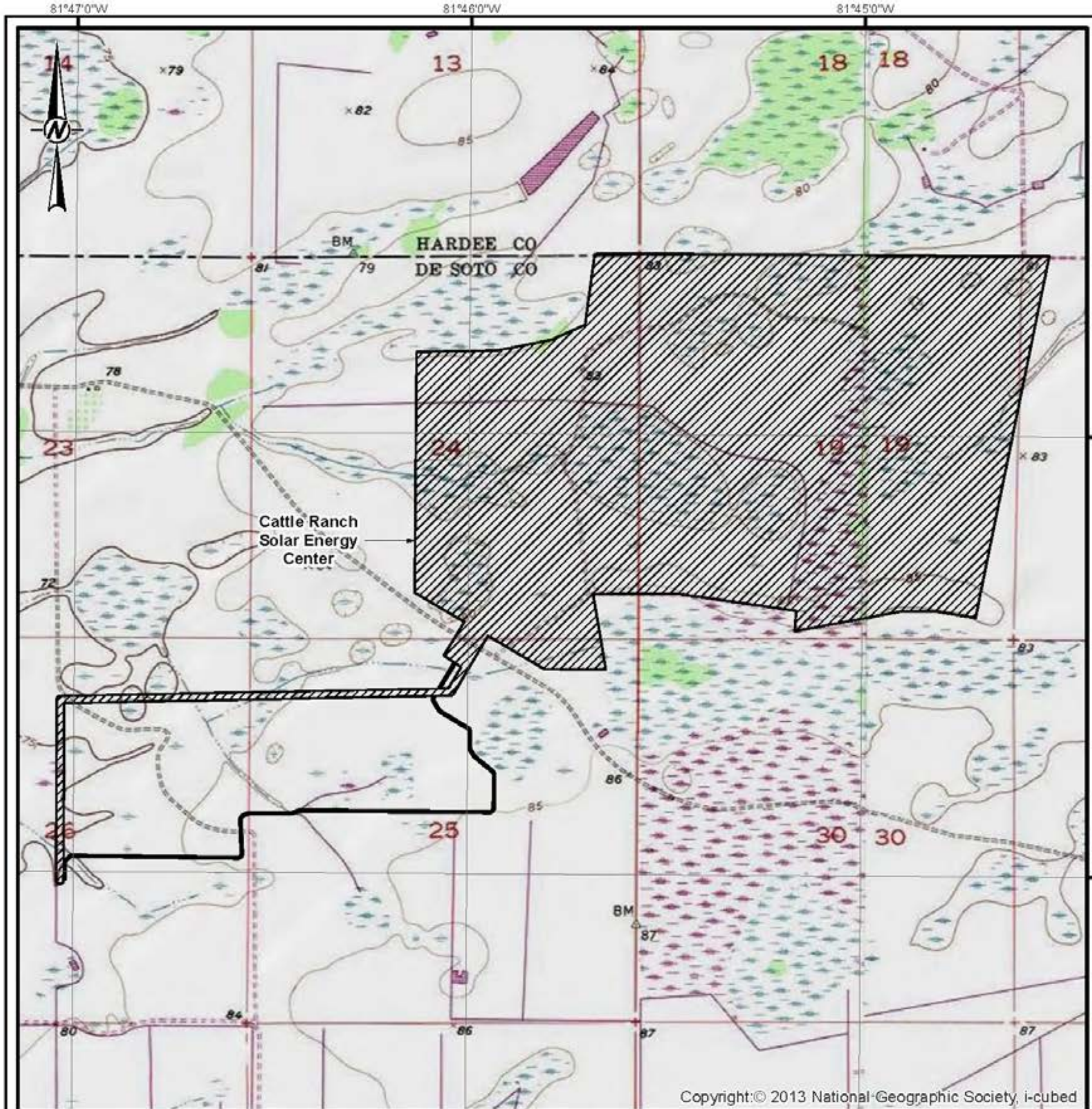
FPL

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A027	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 3: Cattle Ranch Solar Energy Center, DeSoto County



LEGEND

Cattle Ranch Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: GARDNER NE AND CREWSVILLE SW NW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
CATTLE RANCH SOLAR ENERGY CENTER

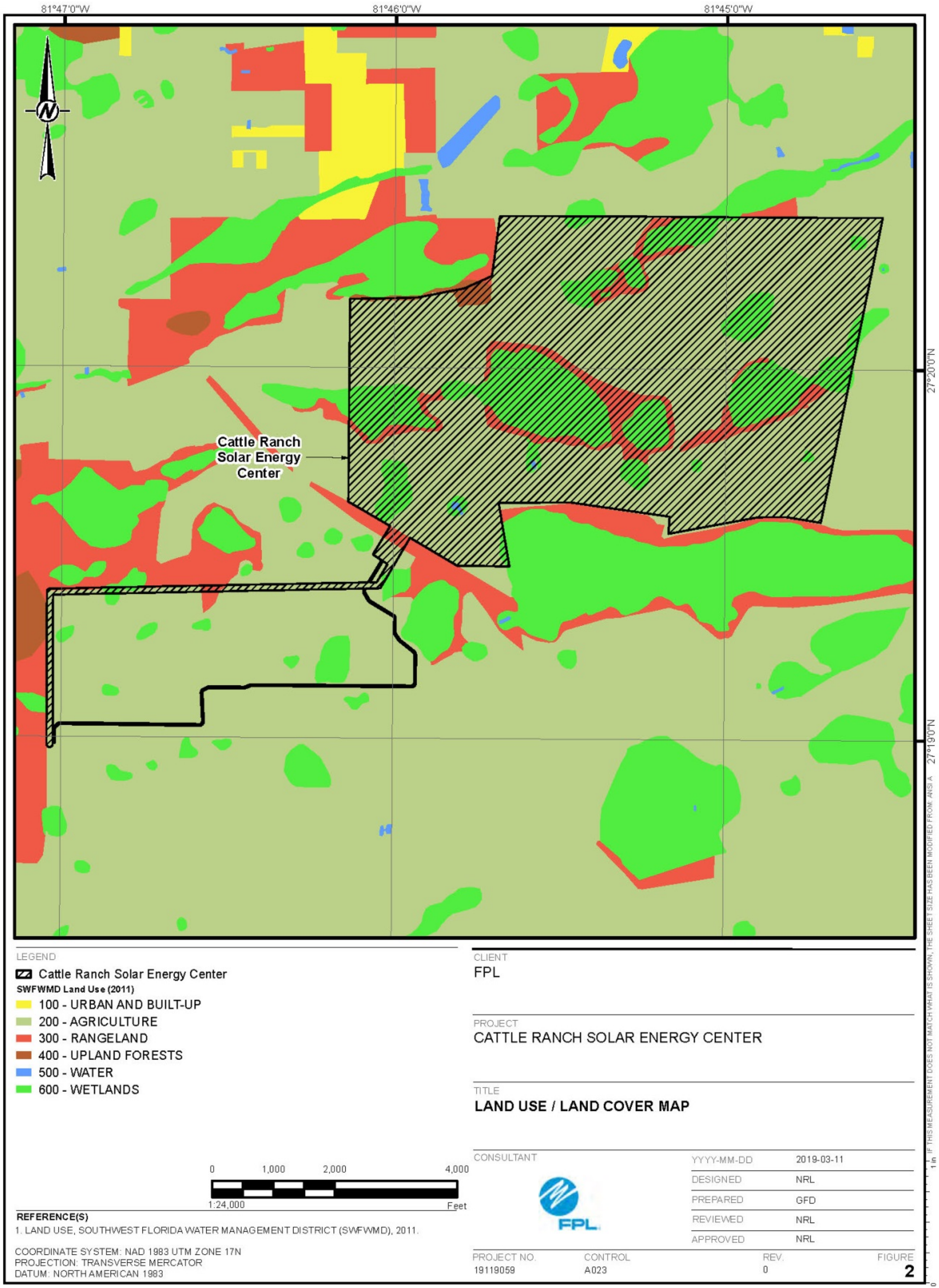
TITLE
USGS LOCATION MAP

CONSULTANT

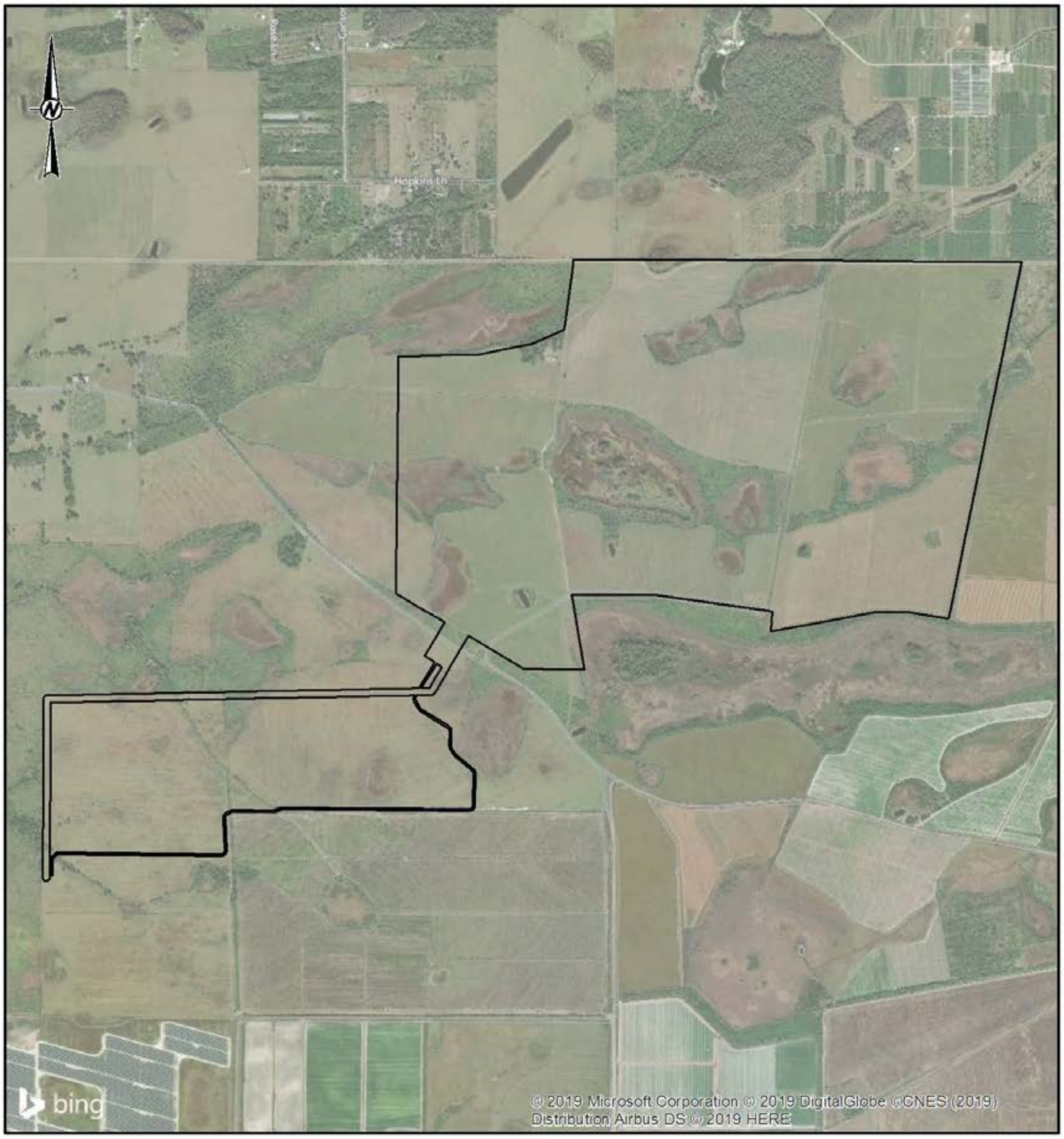
YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

FPL

PROJECT NO.	CONTROL	REV	FIGURE
19119059	A022	0	1



81°47'0"W
81°46'0"W
81°45'0"W
27°20'0"N
27°19'0"N
N
Cattle Ranch Solar Energy Center
LEGEND
Cattle Ranch Solar Energy Center
SWFWMD Land Use (2011)
100 - URBAN AND BUILT-UP
200 - AGRICULTURE
300 - RANGELAND
400 - UPLAND FORESTS
500 - WATER
600 - WETLANDS
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD), 2011.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
CATTLE RANCH SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A023
REV. 0
FIGURE 2



LEGEND

Cattle Ranch Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
CATTLE RANCH SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

FPL

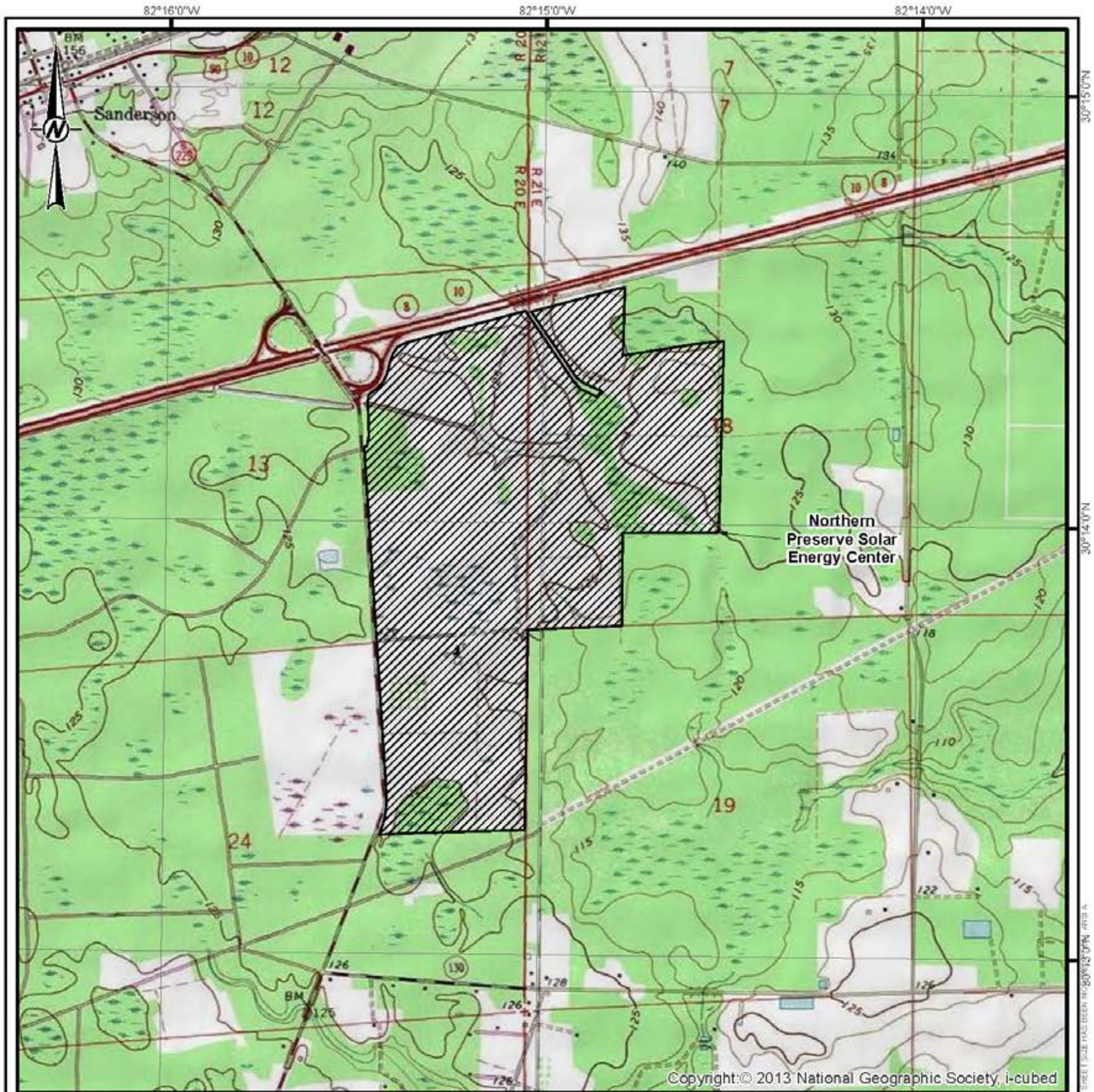
YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV	FIGURE
19119059	A024	0	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information: Supplemental Information

Preferred Site # 4: Northern Preserve Solar Energy Center, Baker County



LEGEND

Northern Preserve Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: SANDERSON SOUTH NE AND MANNING NW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
NORTHERN PRESERVE SOLAR ENERGY CENTER

TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
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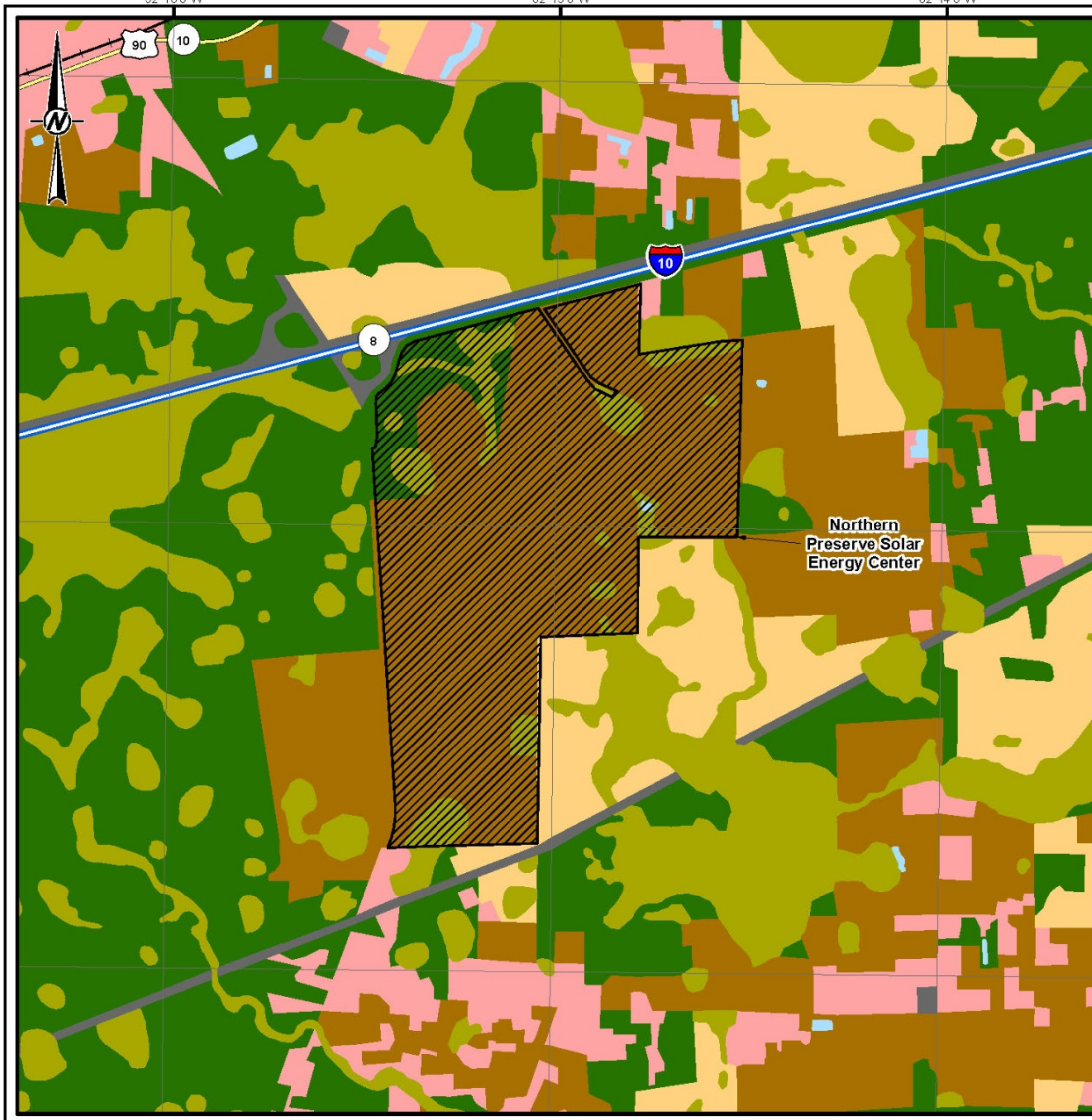

LEGEND

Northern Preserve Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
NORTHERN PRESERVE SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
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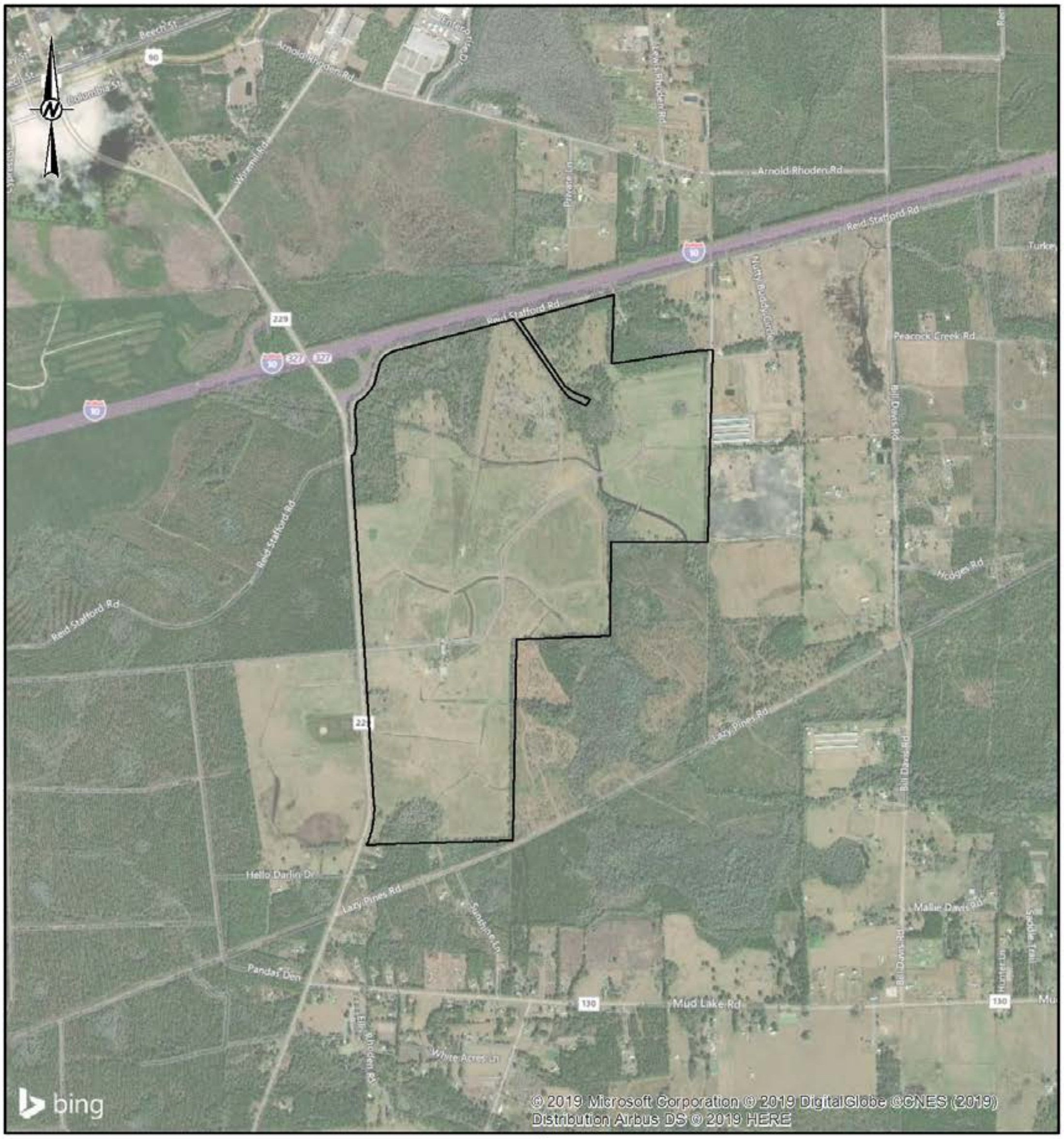


LEGEND

Northern Preserve Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
NORTHERN PRESERVE SOLAR ENERGY CENTER

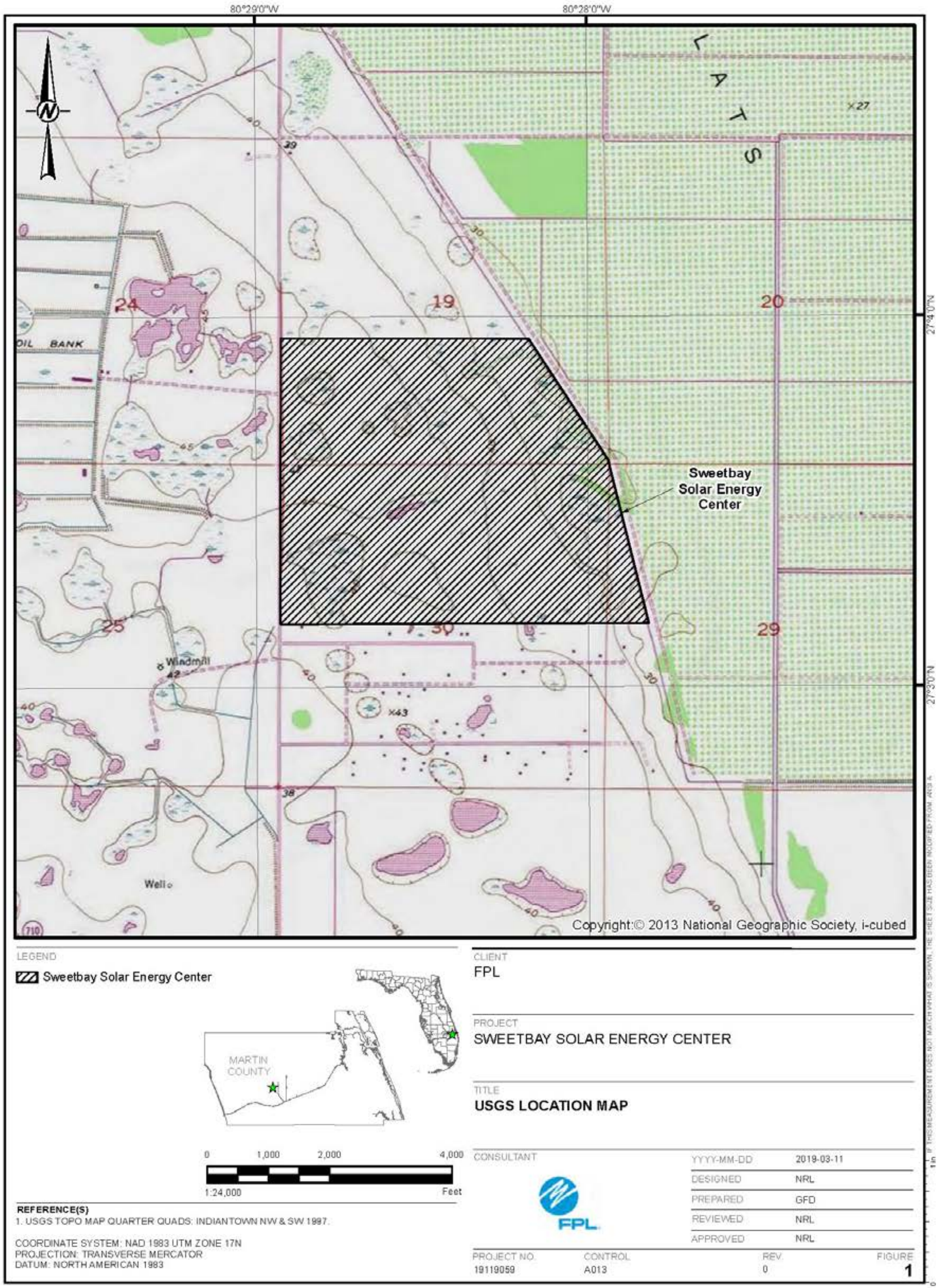
TITLE
FACILITY LAYOUT MAP

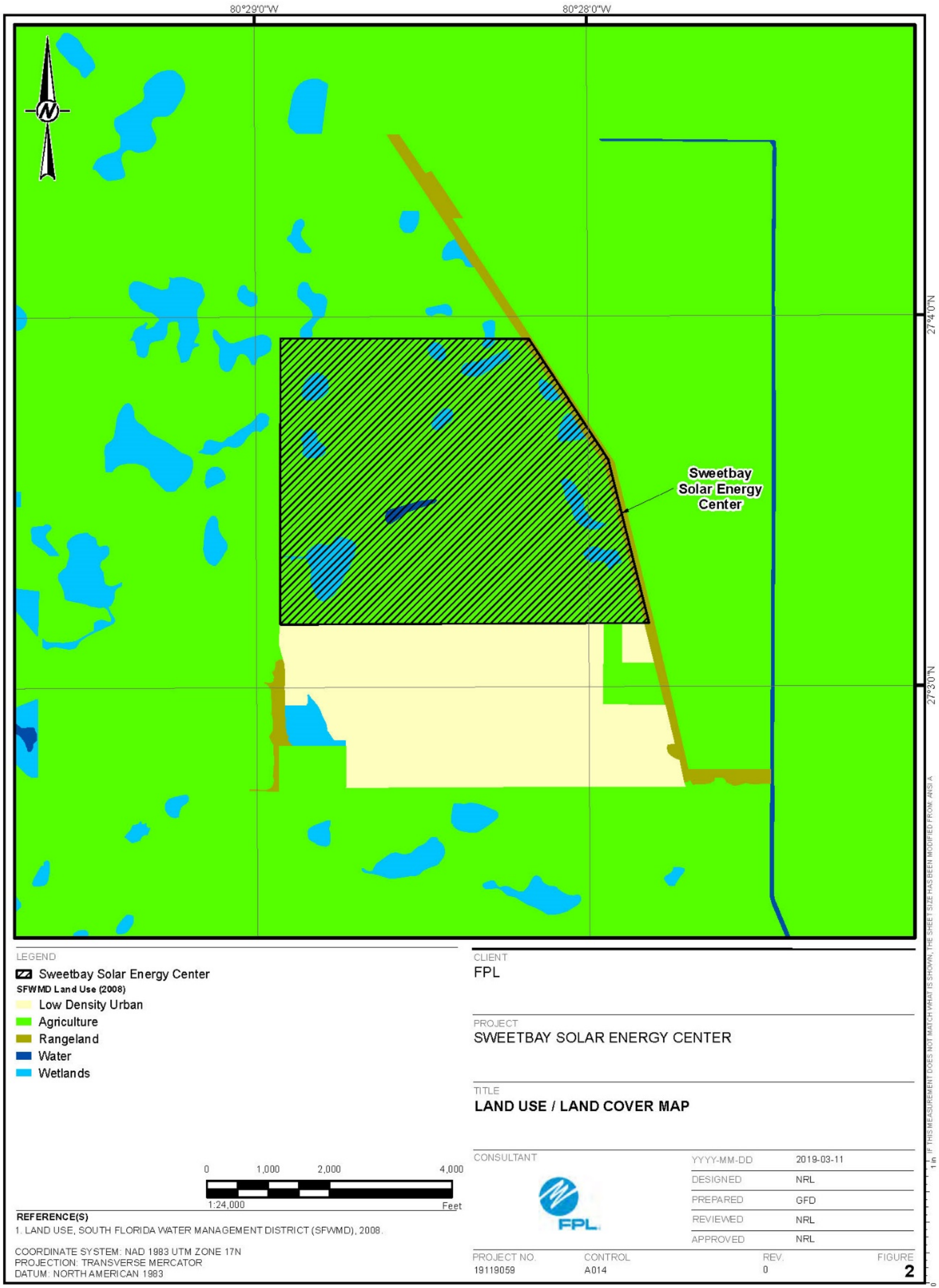
CONSULTANT	YYYY-MM-DD	2019-03-11
FPL	DESIGNED	NRL
	PREPARED	GFD
	REVIEWED	NRL
	APPROVED	NRL

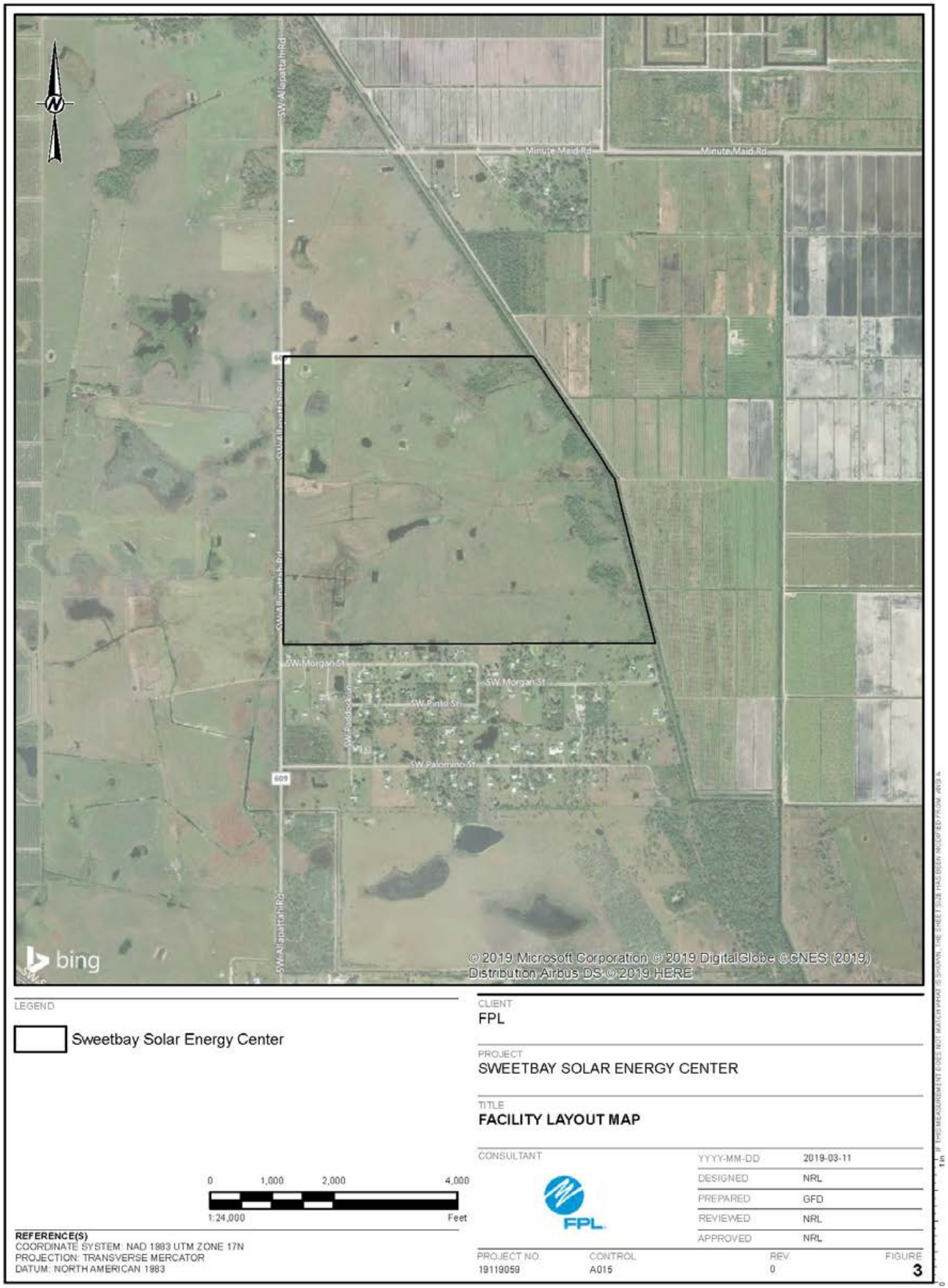
PROJECT NO.	CONTROL	REV	FIGURE
19119059	A012	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 5: Sweetbay Solar Energy Center, Martin County

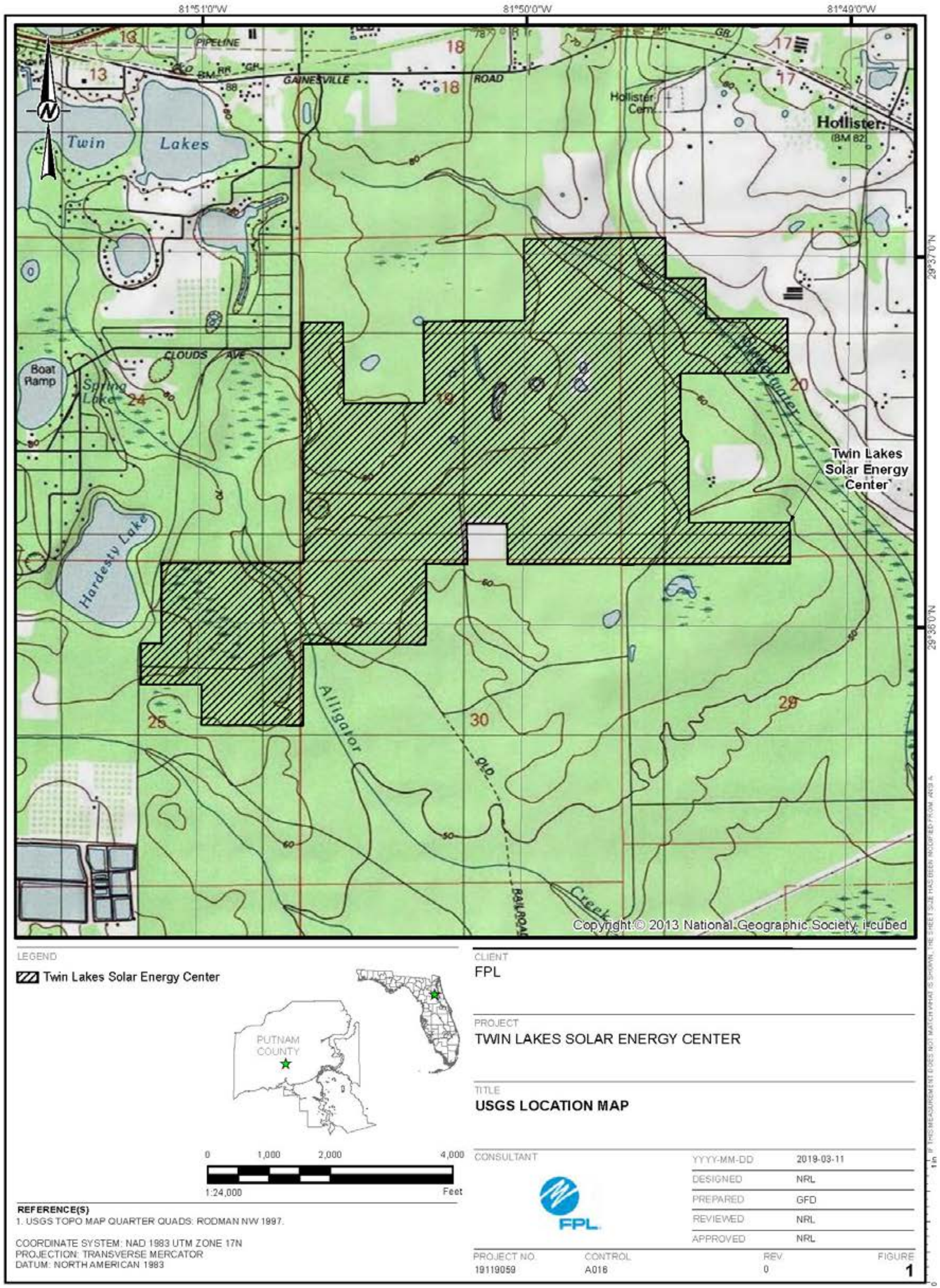

80°29'0"W
80°28'0"W
27°4'0"N
27°3'0"N
N
19
20
24
25
29
30
BANK
Windmill
Well
Sweetbay Solar Energy Center
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Sweetbay Solar Energy Center
MARTIN COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: INDIANTOWN NW & SW 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
SWEETBAY SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A013
REV. 0
FIGURE 1

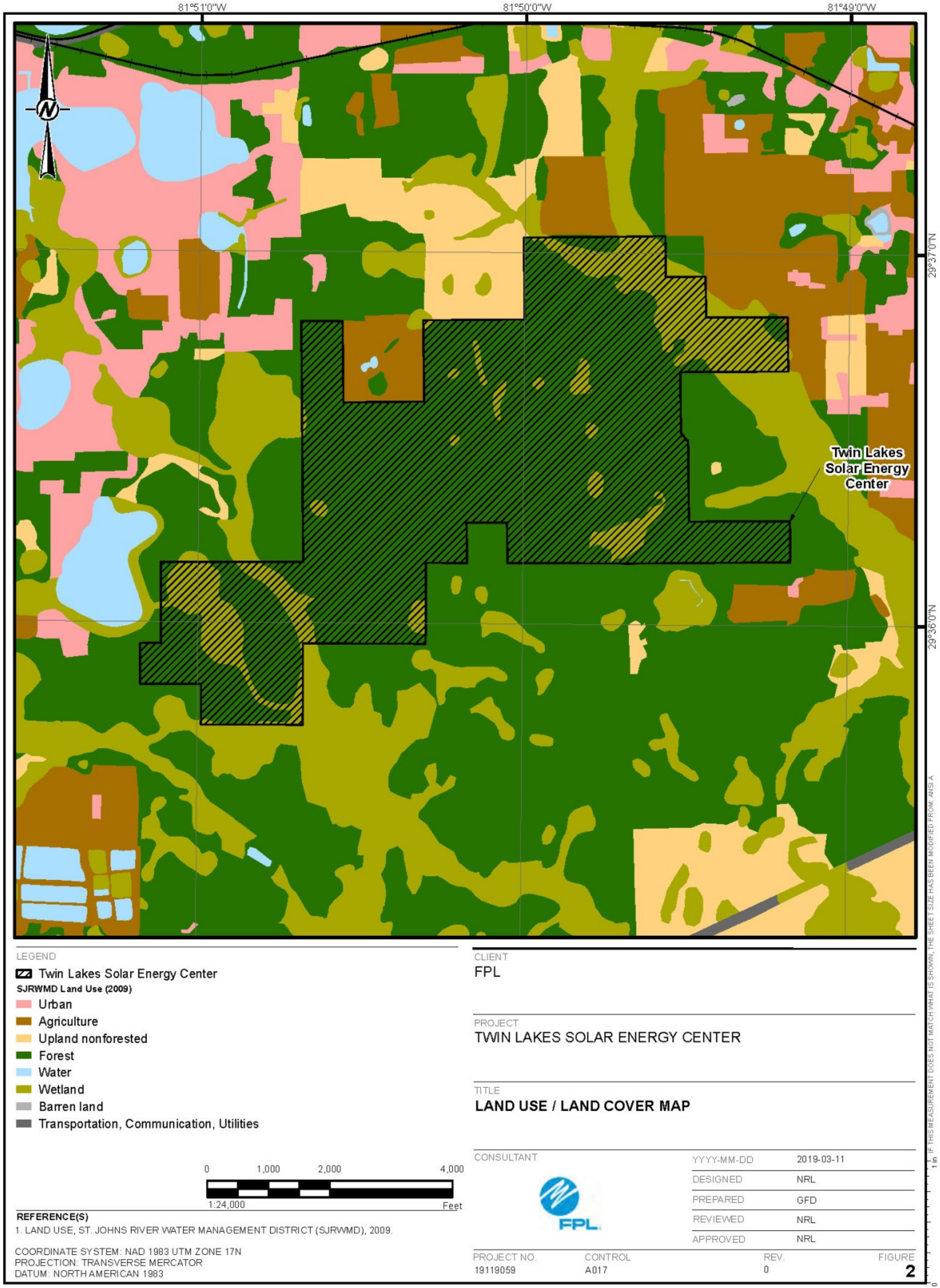

80°29'0"W
80°28'0"W
27°4'0"N
27°3'0"N
Sweetbay Solar Energy Center
LEGEND
Sweetbay Solar Energy Center
SFWMD Land Use (2008)
Low Density Urban
Agriculture
Rangeland
Water
Wetlands
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
SWEETBAY SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A014
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A


SW Allapattah Rd
Minute Maid Rd
Minute Maid Rd
SW Morgan St
SW Morgan St
SW Pinto St
SW Palomino St
609
bing
© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS © 2019 HERE
LEGEND
Sweetbay Solar Energy Center
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
SWEETBAY SOLAR ENERGY CENTER
TITLE
FACILITY LAYOUT MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A015
REV. 0
FIGURE 3

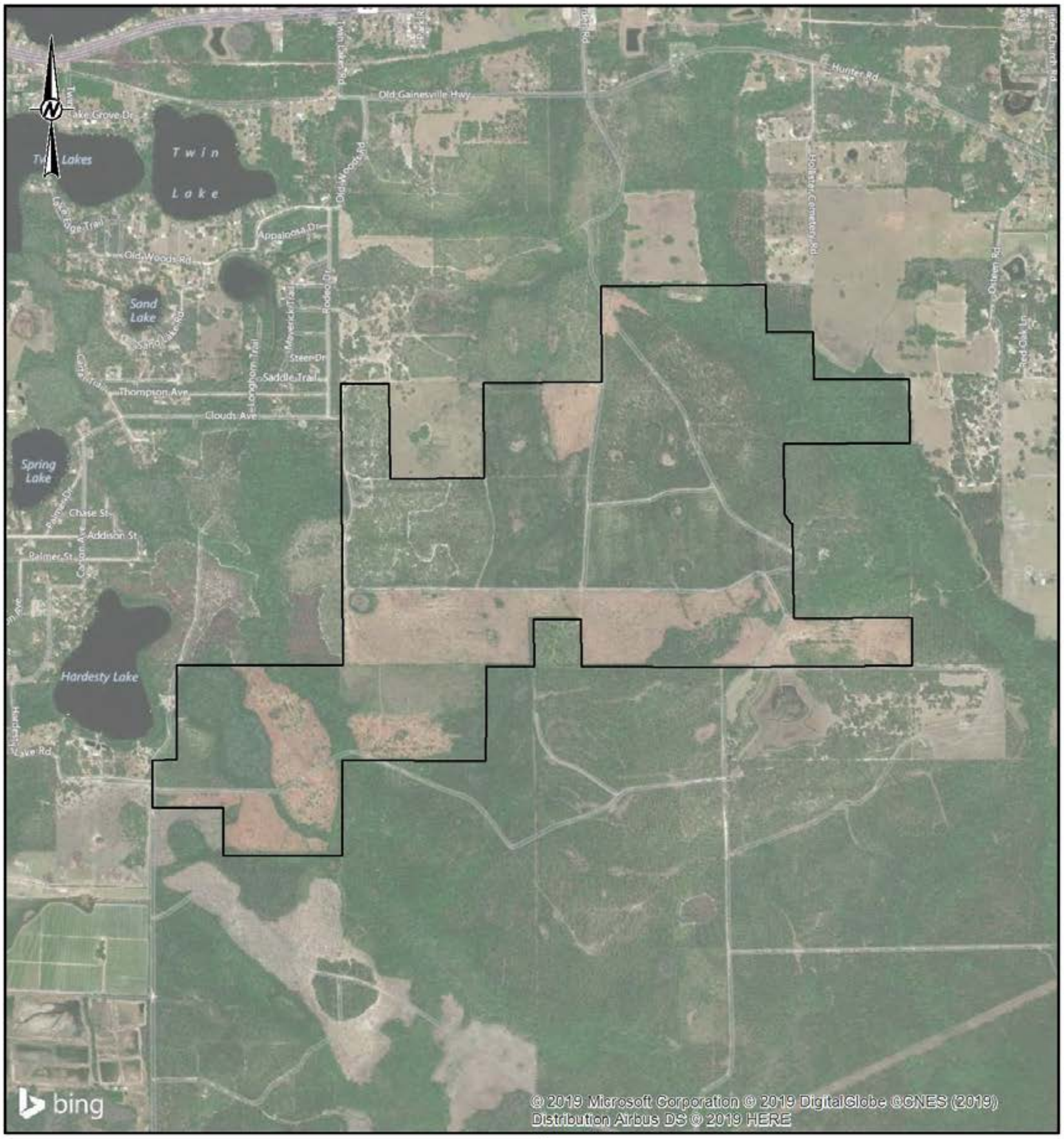
Environmental and Land Use Information: Supplemental Information

Preferred Site # 6: Twin Lakes Solar Energy Center, Putnam County


81°51'0"W
81°50'0"W
81°49'0"W
29°37'0"N
29°36'0"N
Twin Lakes
Hollister
Hollister Cem.
GAINESVILLE
ROAD
PIPELINE
CLOUDS AVE
Boat Ramp
Spring Lake
Hardesty Lake
Alligator
Creek
OLD
RAILROAD
Twin Lakes Solar Energy Center
Copyright: © 2013 National Geographic Society, i-cubed
LEGEND
Twin Lakes Solar Energy Center
PUTNAM COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: RODMAN NW 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
TWIN LAKES SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A016
REV 0
FIGURE 1



81°51'0"W
81°50'0"W
81°49'0"W
29°37'0"N
29°36'0"N
N
Twin Lakes Solar Energy Center
LEGEND
Twin Lakes Solar Energy Center
SJRWMD Land Use (2009)
Urban
Agriculture
Upland nonforested
Forest
Water
Wetland
Barren land
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
TWIN LAKES SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A017
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Twin Lakes Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
TWIN LAKES SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

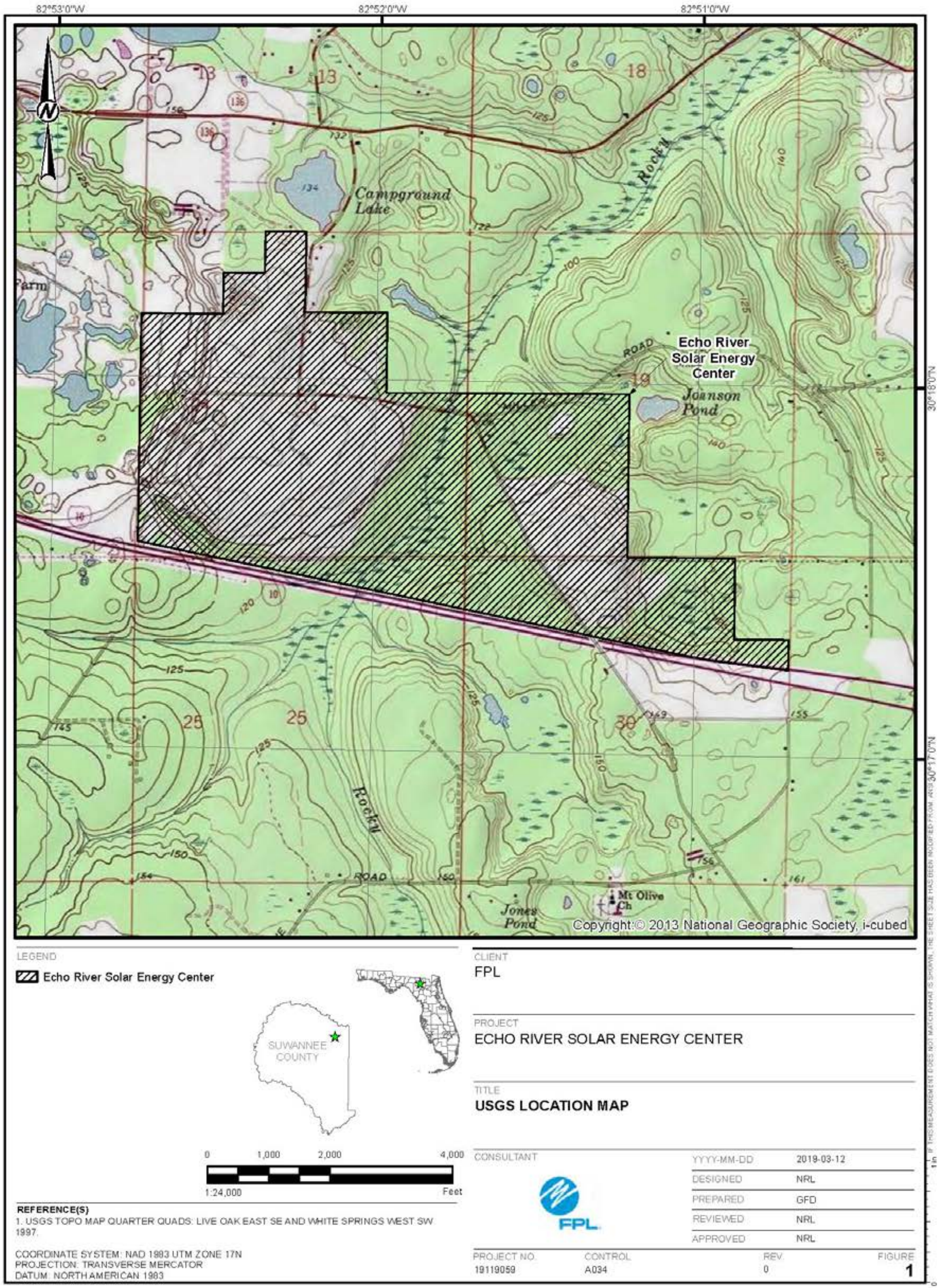
FPL

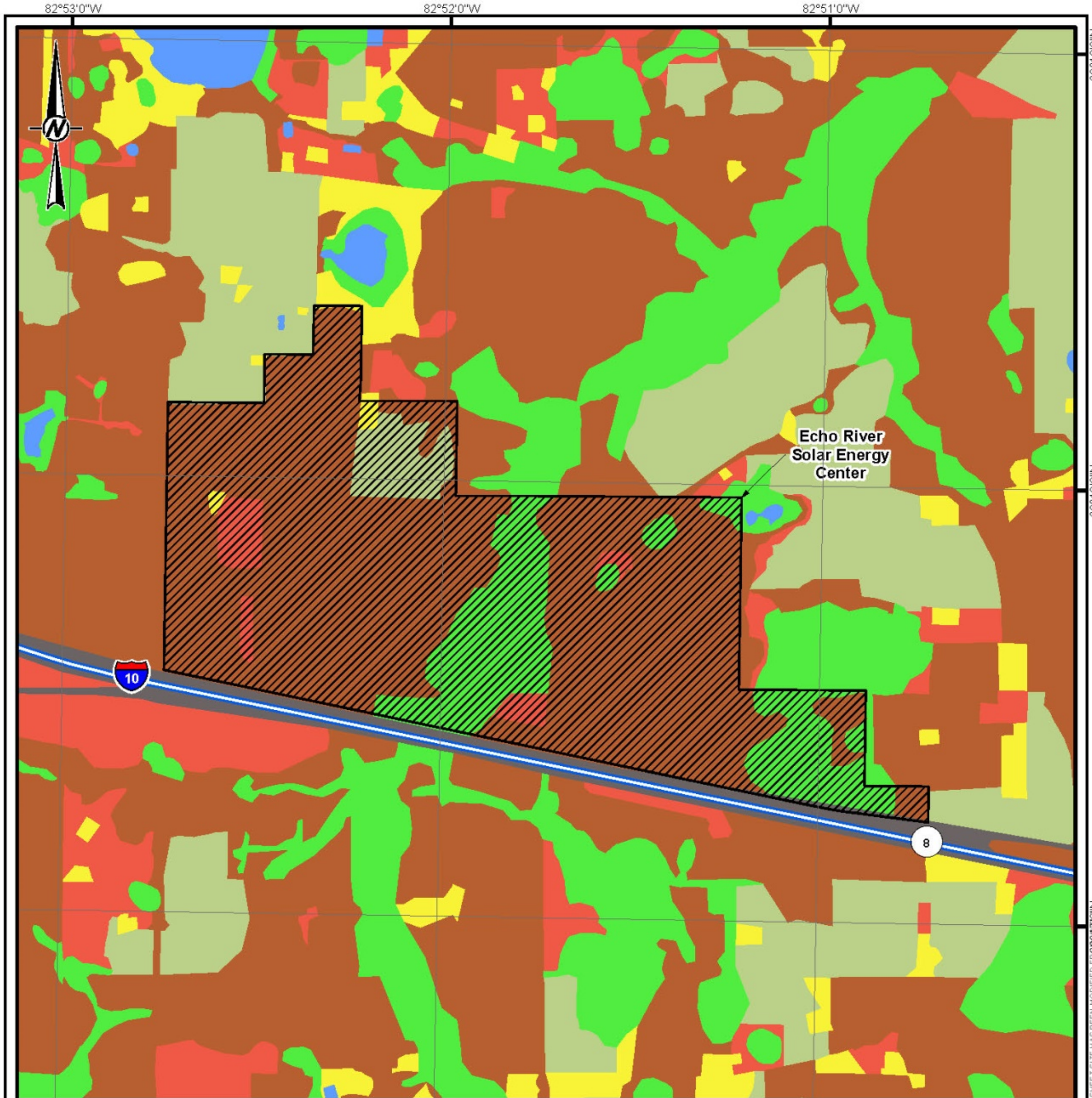
YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A018	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 7: Echo River Solar Energy Center, Suwannee County


82°53'0"W
82°52'0"W
82°51'0"W
30°18'0"N
30°17'0"N
Campground Lake
Echo River Solar Energy Center
Johnson Pond
Rocky
Jones Pond
Mt Olive Ch
Copyright: © 2013 National Geographic Society, i-cubed
LEGEND
Echo River Solar Energy Center
SUWANNEE COUNTY
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: LIVE OAK EAST SE AND WHITE SPRINGS WEST SW 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
ECHO RIVER SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A034
REV. 0
FIGURE 1



LEGEND

Echo River Solar Energy Center

SRWMD Land Use (2011)

- 100 - URBAN AND BUILT-UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD), 2011.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
ECHO RIVER SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

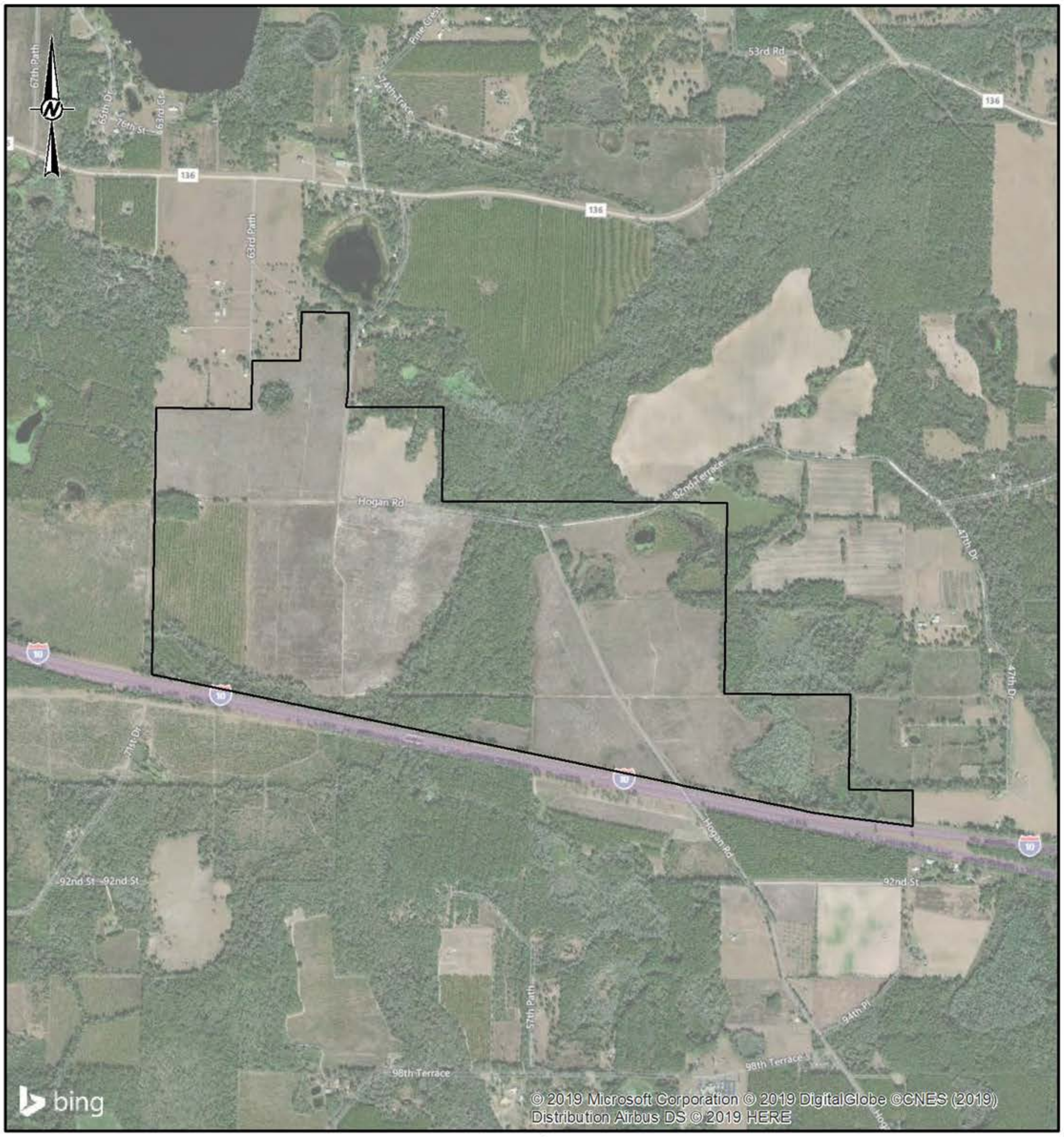
CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A035	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM



LEGEND

Echo River Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
ECHO RIVER SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A036	0	3

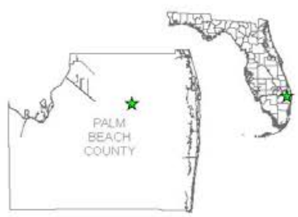
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information: Supplemental Information

Preferred Site # 8: Hibiscus Solar Energy Center, Palm Beach County

LEGEND

Hibiscus Solar Energy Center



0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: WEST PALM BEACH 2 SE SW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

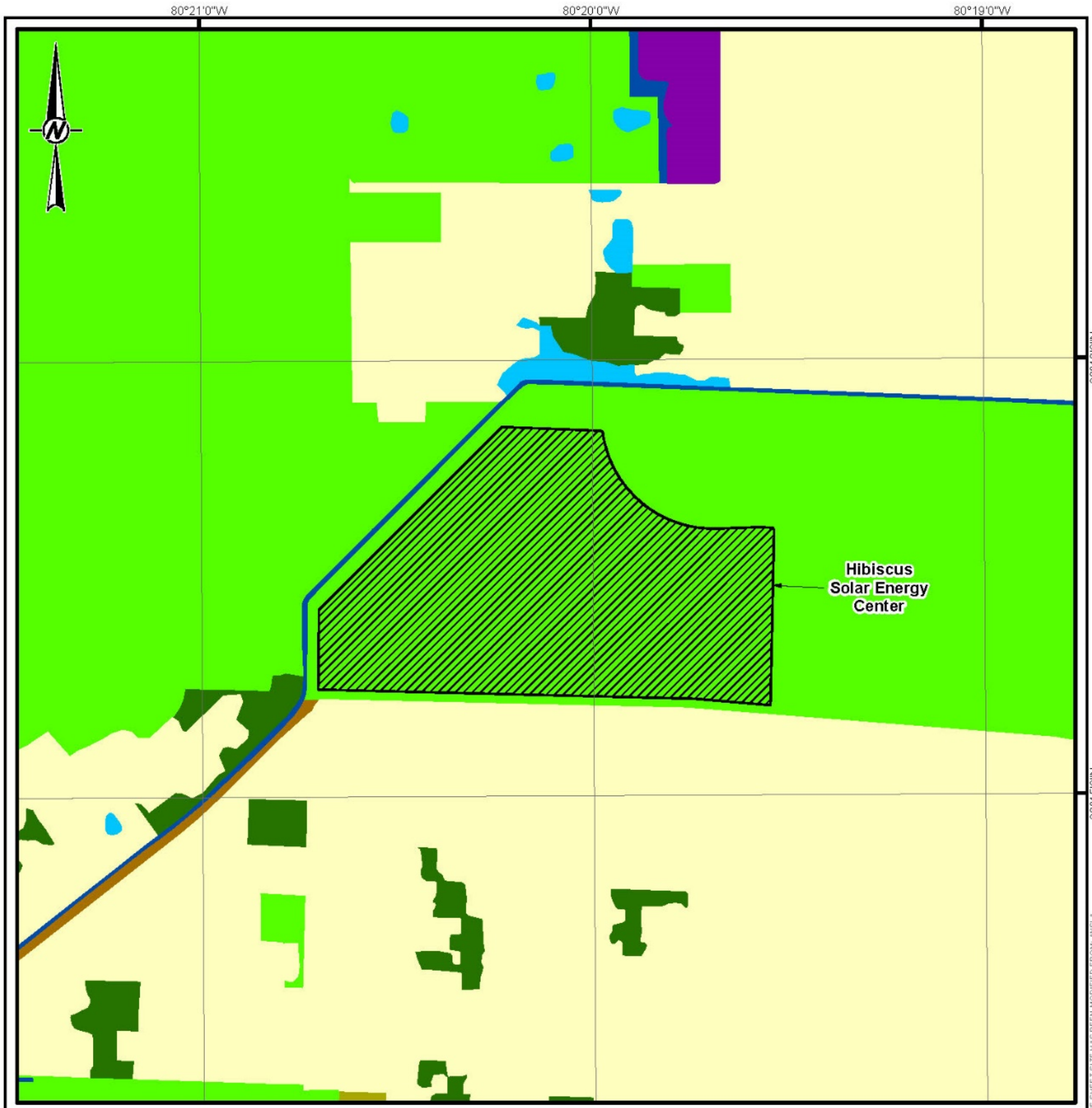
CLIENT
FPL

PROJECT
HIBISCUS SOLAR ENERGY CENTER

TITLE
USGS LOCATION MAP

CONSULTANT	YYYY-MM-DD	2019-03-12
FPL	DESIGNED	NRL
	PREPARED	GFD
	REVIEWED	NRL
	APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A031	0	1



LEGEND

Hibiscus Solar Energy Center

SFWMD Land Use (2008)

- Low Density Urban
- Institutional
- Agriculture
- Rangeland
- Upland Forests
- Water
- Wetlands
- Barren Land

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
HIBISCUS SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A032	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

LEGEND

Hibiscus Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
HIBISCUS SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

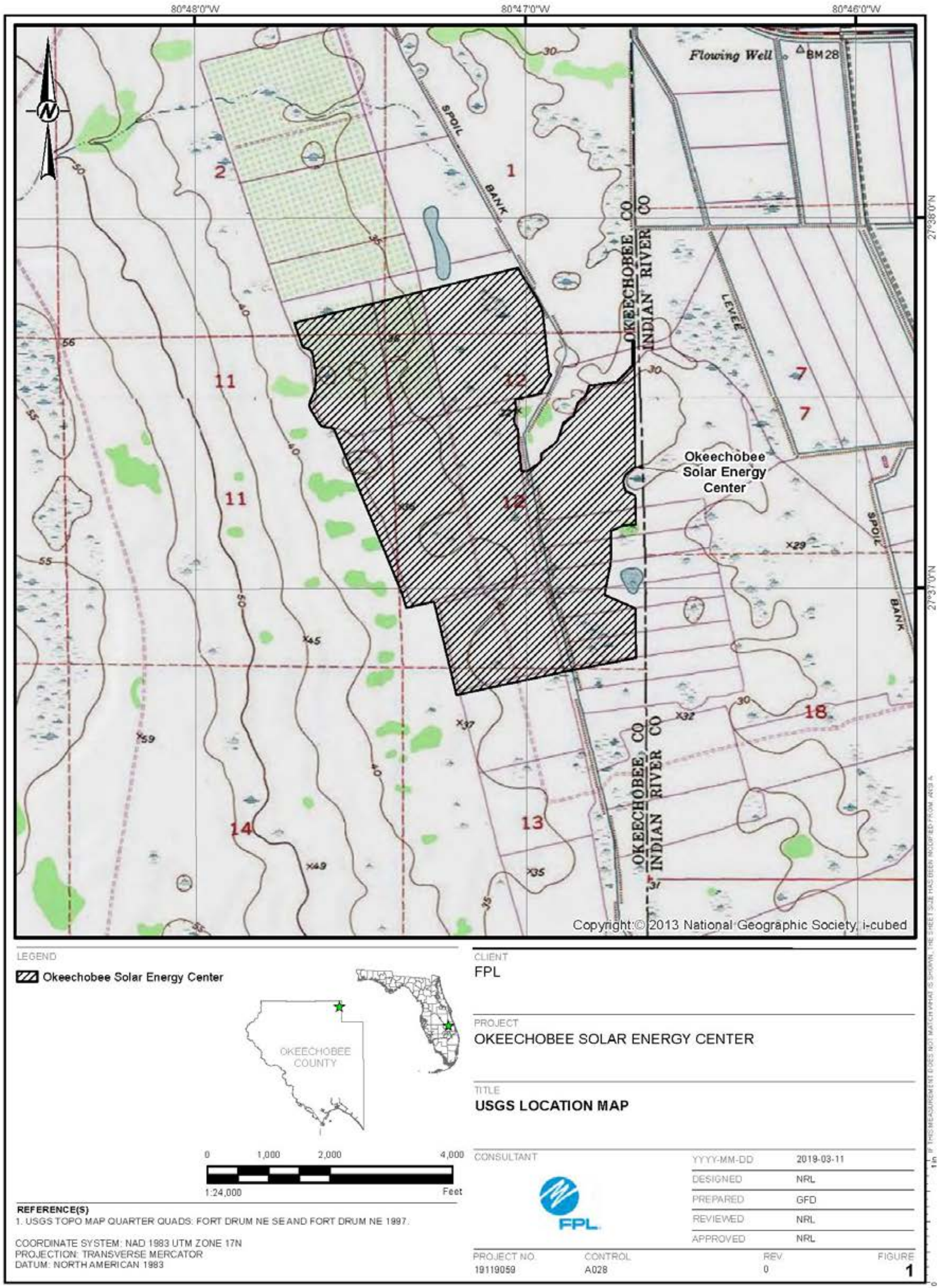
FPL

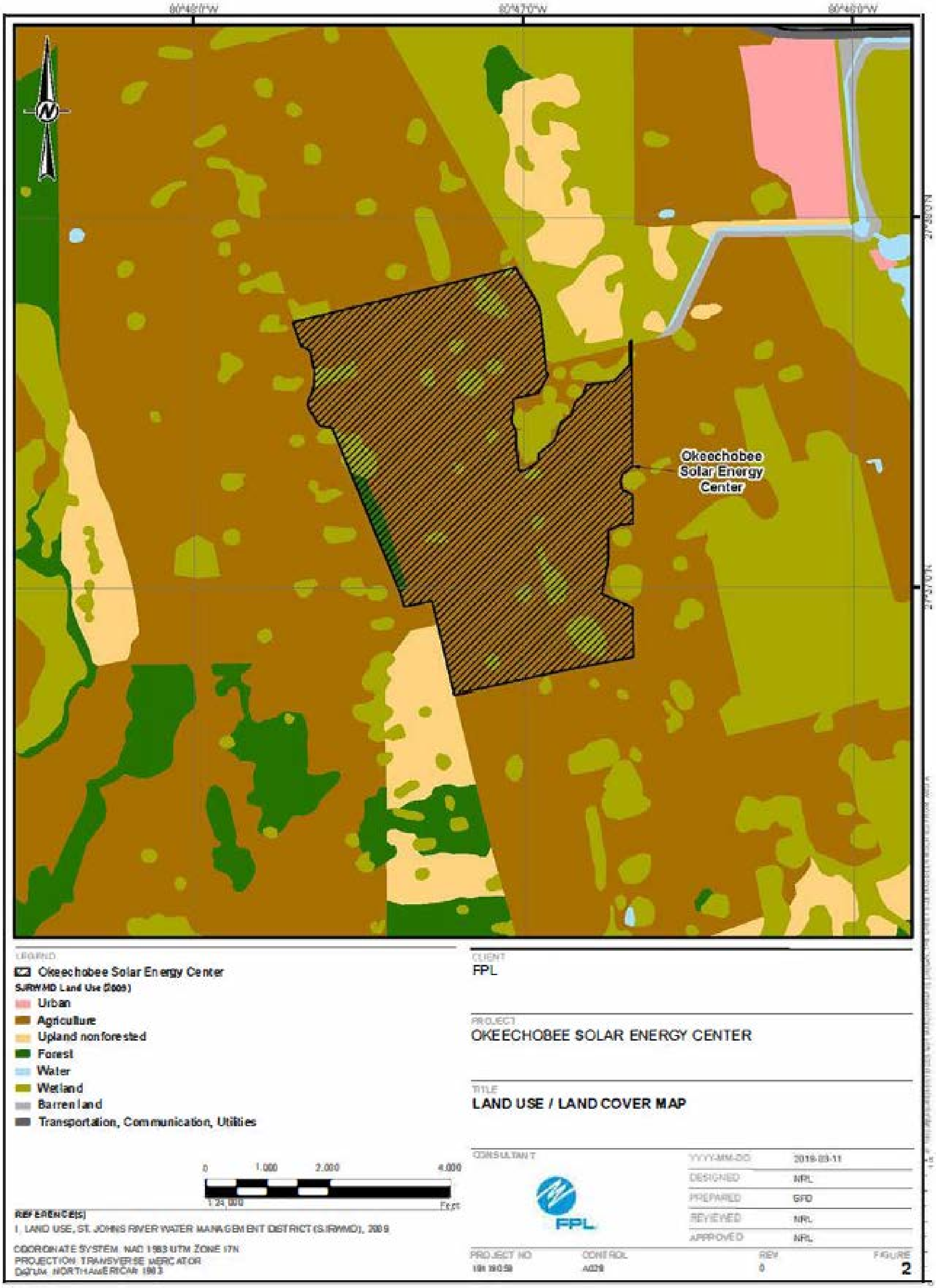
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

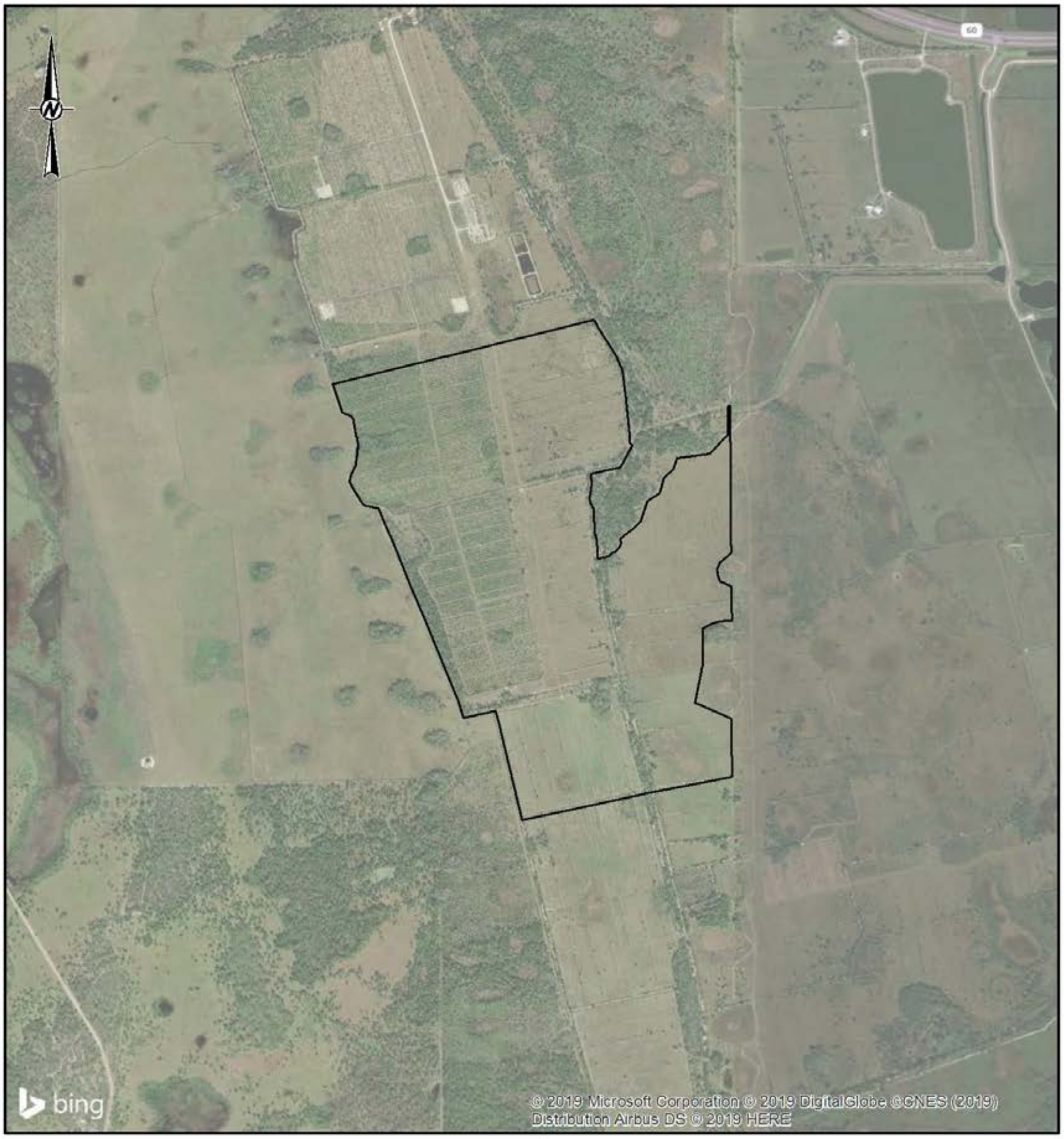
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A033	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 9: Okeechobee Solar Energy Center, Okeechobee County


80°48'0"W
80°47'0"W
80°46'0"W
27°38'0"N
27°37'0"N
Flowing Well
BM28
SPOIL
BANK
OKEECHOBEE CO
INDIAN RIVER CO
LEVEE
Okeechobee
Solar Energy
Center
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Okeechobee Solar Energy Center
OKEECHOBEE
COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: FORT DRUM NE SE AND FORT DRUM NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
OKEECHOBEE SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD
2019-03-11
DESIGNED
NRL
PREPARED
GFD
REVIEWED
NRL
APPROVED
NRL
FPL
PROJECT NO.
19119059
CONTROL
A028
REV
0
FIGURE
1


Okeechobee Solar Energy Center
LEGEND
Okeechobee Solar Energy Center
SJRWMD Land Use (2009)
Urban
Agriculture
Upland nonforested
Forest
Water
Wetland
Barren land
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
OKEECHOBEE SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2016-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO
CONTROL
A029
REV
0
FIGURE
2



LEGEND

Okeechobee Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
OKEECHOBEE SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

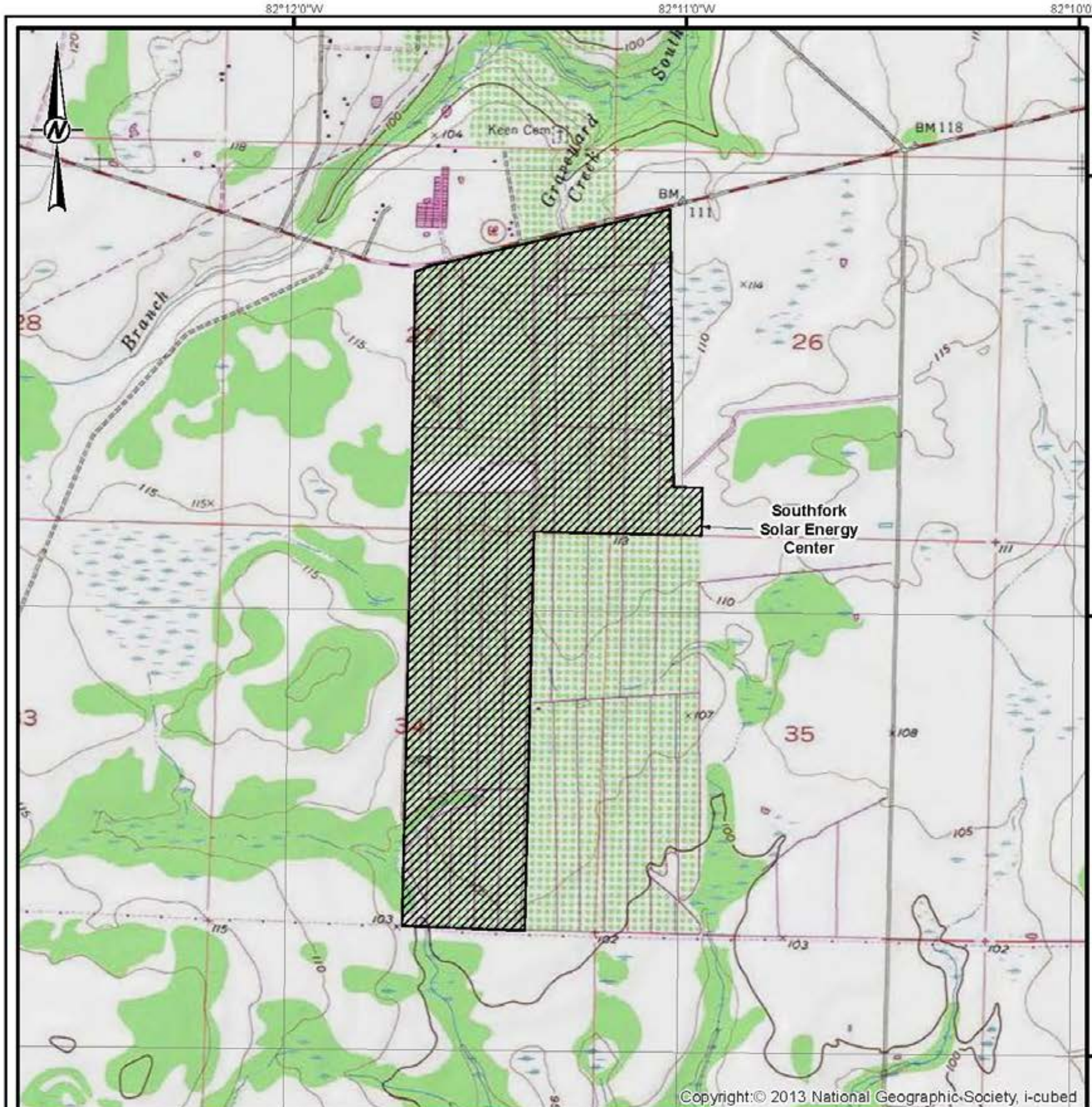
CONSULTANT

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A030	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 10: Southfork Solar Energy Center, Manatee County



LEGEND

Southfork Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: KEENTOWN NW, NE, AND SW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

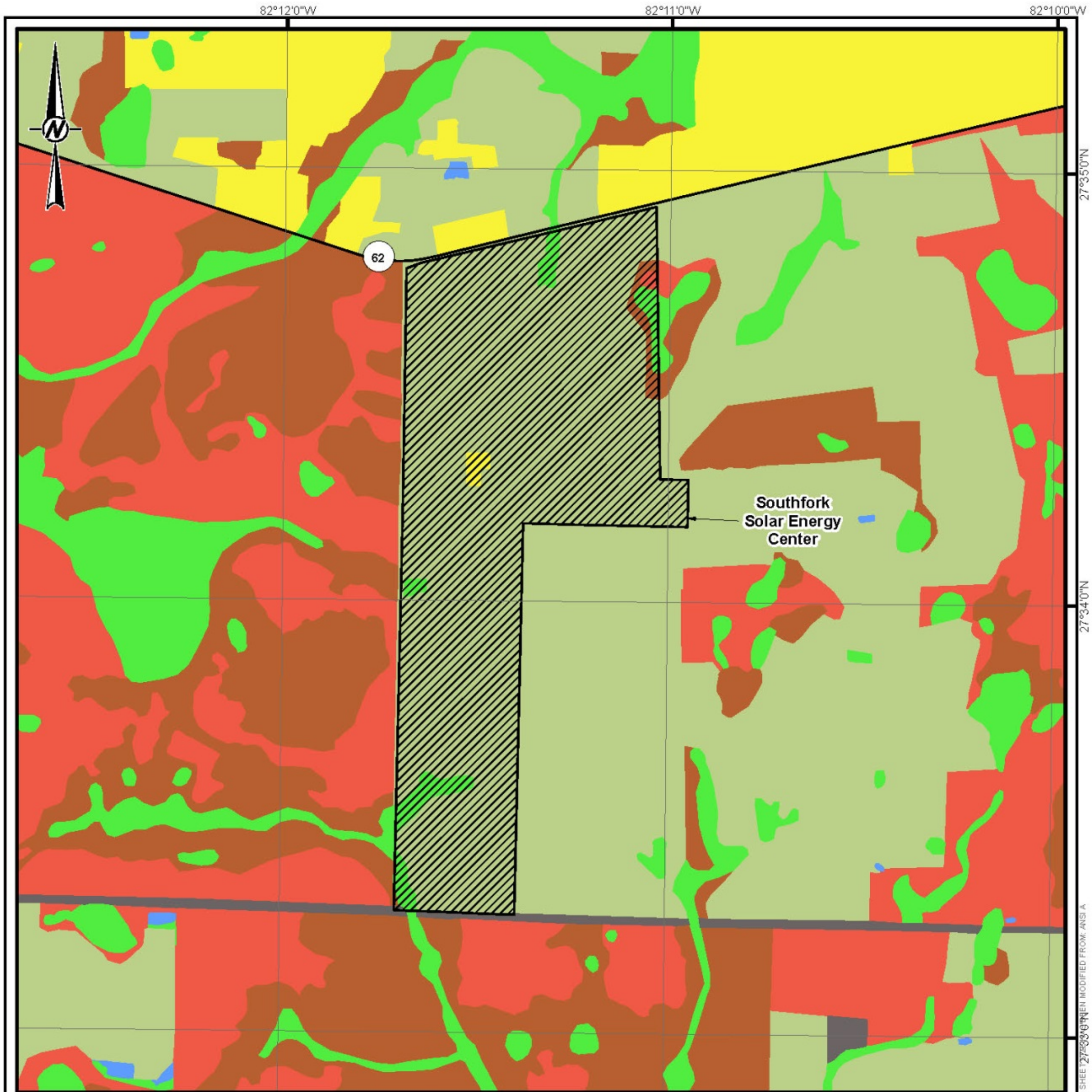
PROJECT
SOUTHFORK SOLAR ENERGY CENTER

TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV	FIGURE
19119059	A037	0	1



LEGEND

- Southfork Solar Energy Center

SWFWMD Land Use (2011)

- 100 - URBAN AND BUILT-UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD), 2011.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
SOUTHFORK SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

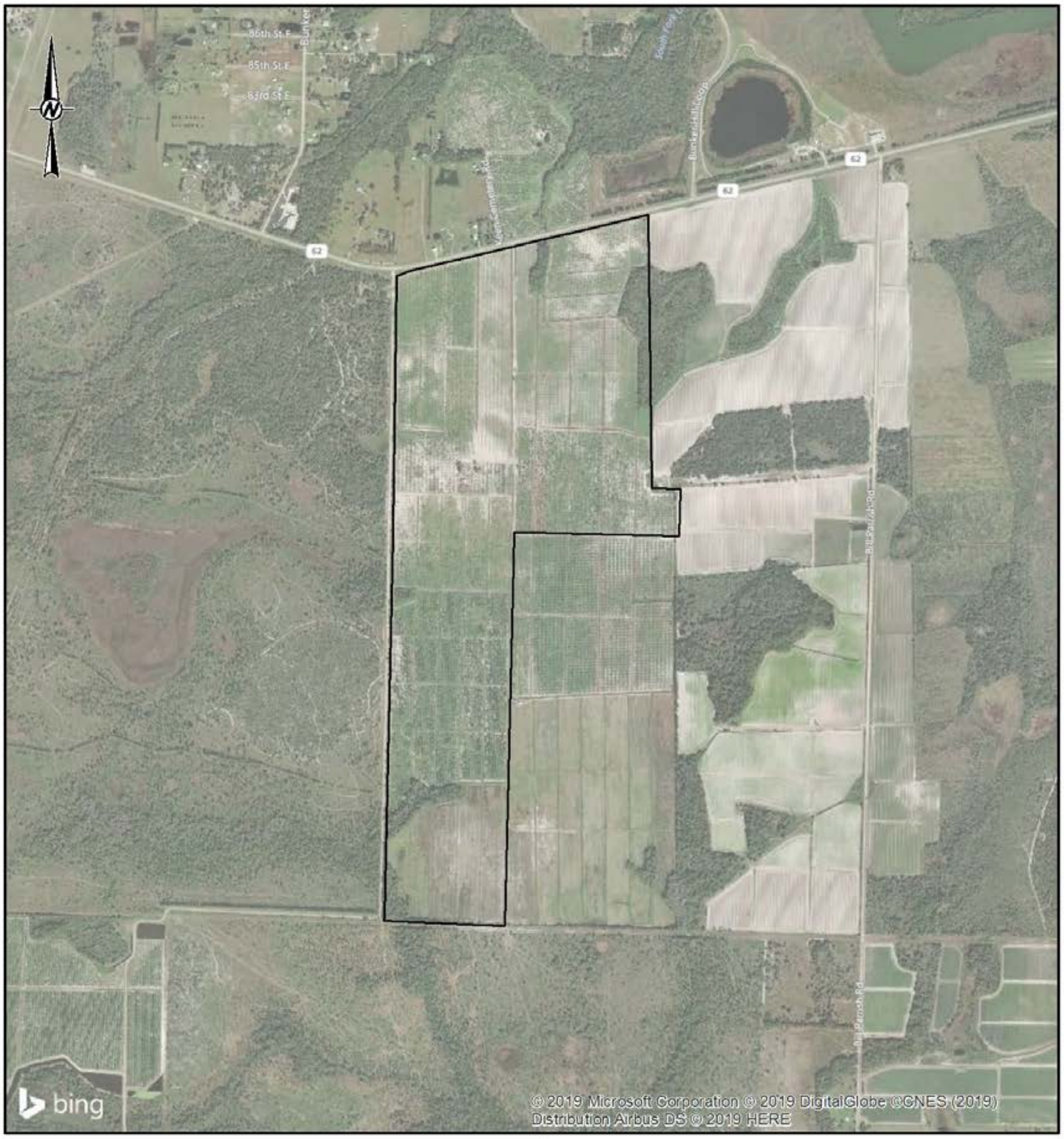
CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A038	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Southfork Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
SOUTHFORK SOLAR ENERGY CENTER

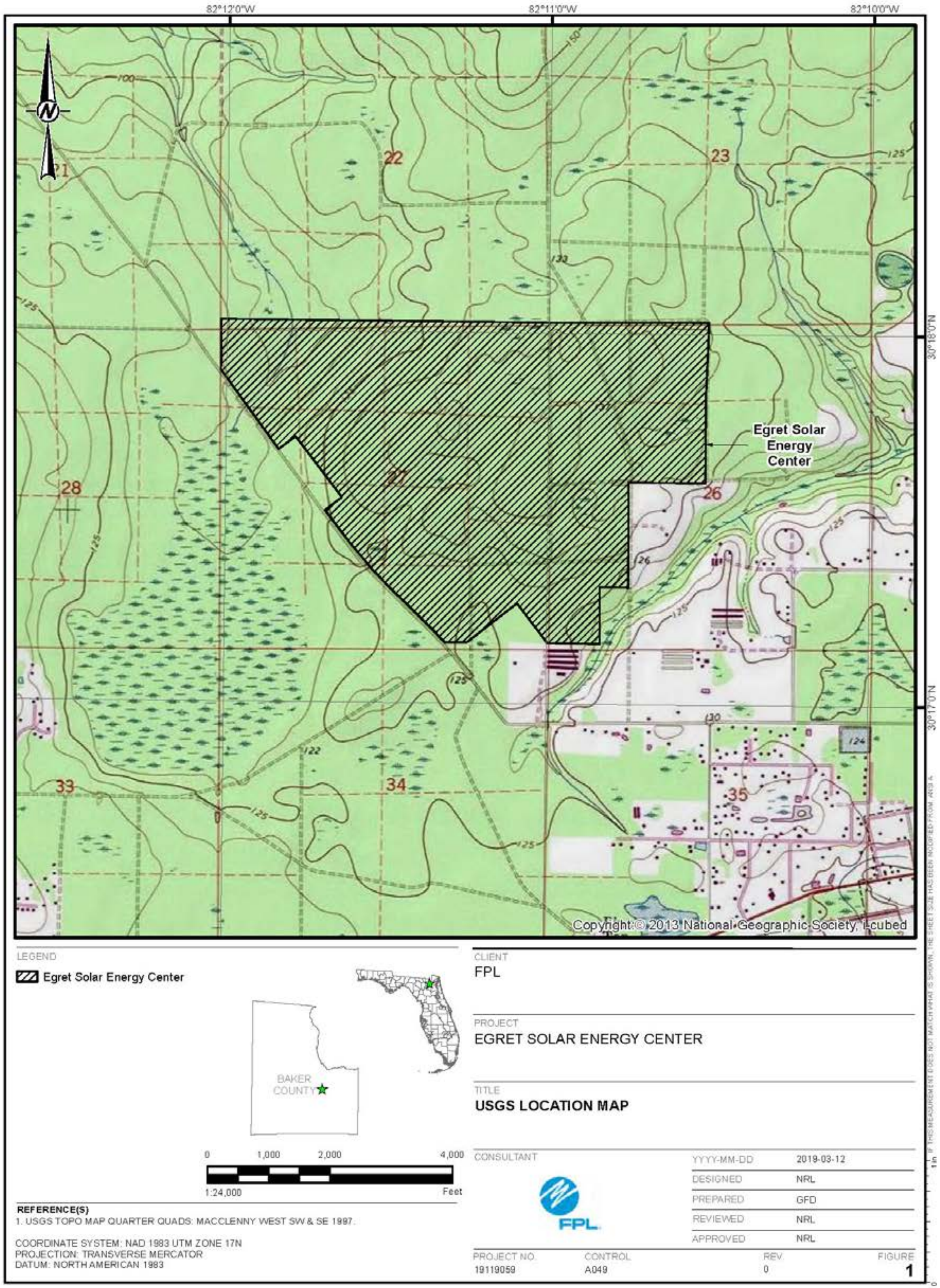
TITLE
FACILITY LAYOUT MAP

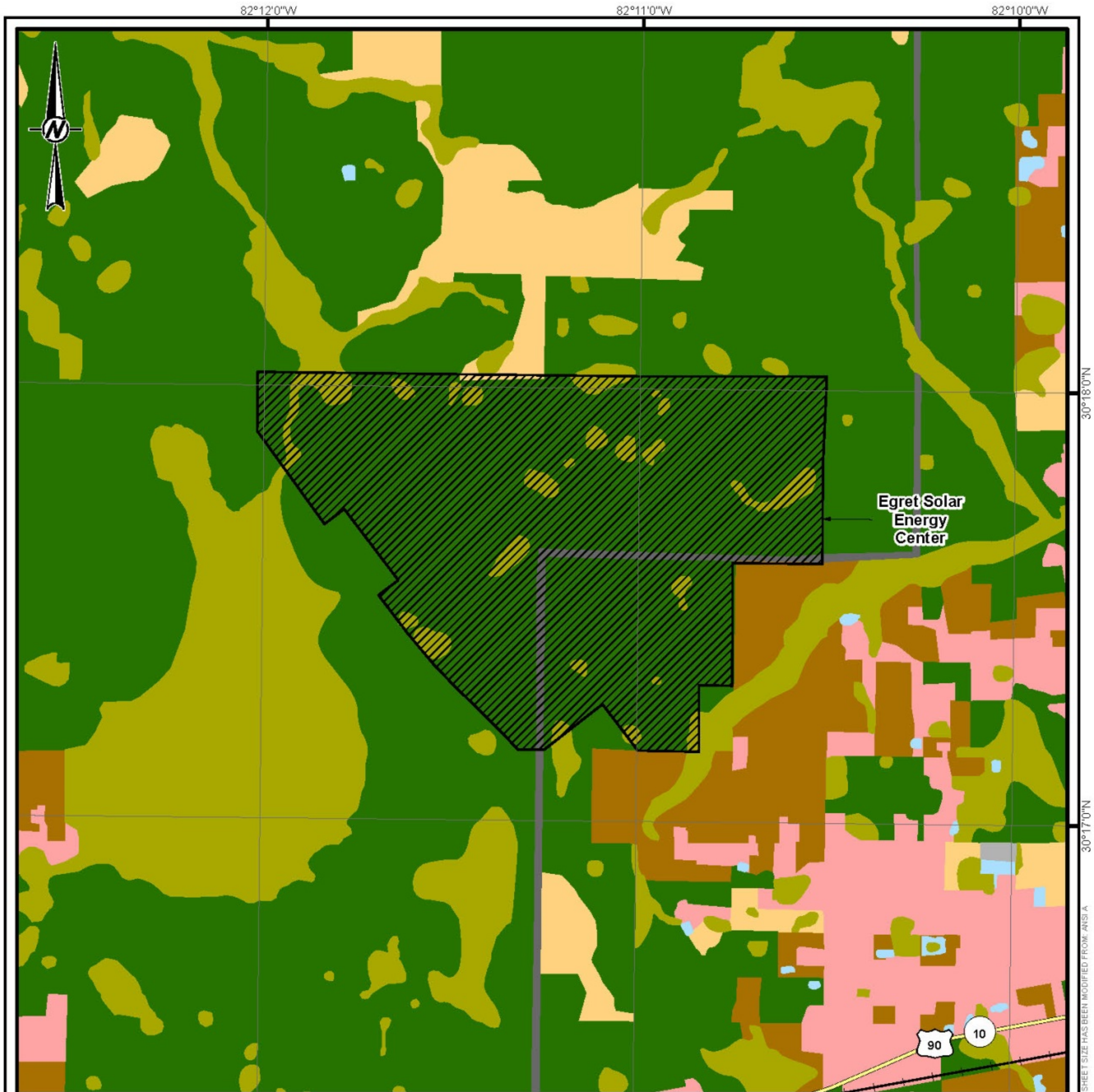
CONSULTANT		YYYY-MM-DD	2019-03-12
FPL		DESIGNED	NRL
		PREPARED	GFD
		REVIEWED	NRL
		APPROVED	NRL
PROJECT NO. 19119059	CONTROL A039	REV 0	FIGURE 3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI A

Environmental and Land Use Information: Supplemental Information

Preferred Site # 11: Egret Solar Energy Center, Baker County


82°12'0"W
82°11'0"W
82°10'0"W
30°18'0"N
30°17'0"N
22
23
21
28
27
26
33
34
35
Egret Solar Energy Center
Copyright: © 2013 National Geographic Society, i-cubed
LEGEND
Egret Solar Energy Center
BAKER COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: MACCLENNY WEST SW & SE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
EGRET SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A049
REV. 0
FIGURE 1



LEGEND

- Egret Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Barren land
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
EGRET SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

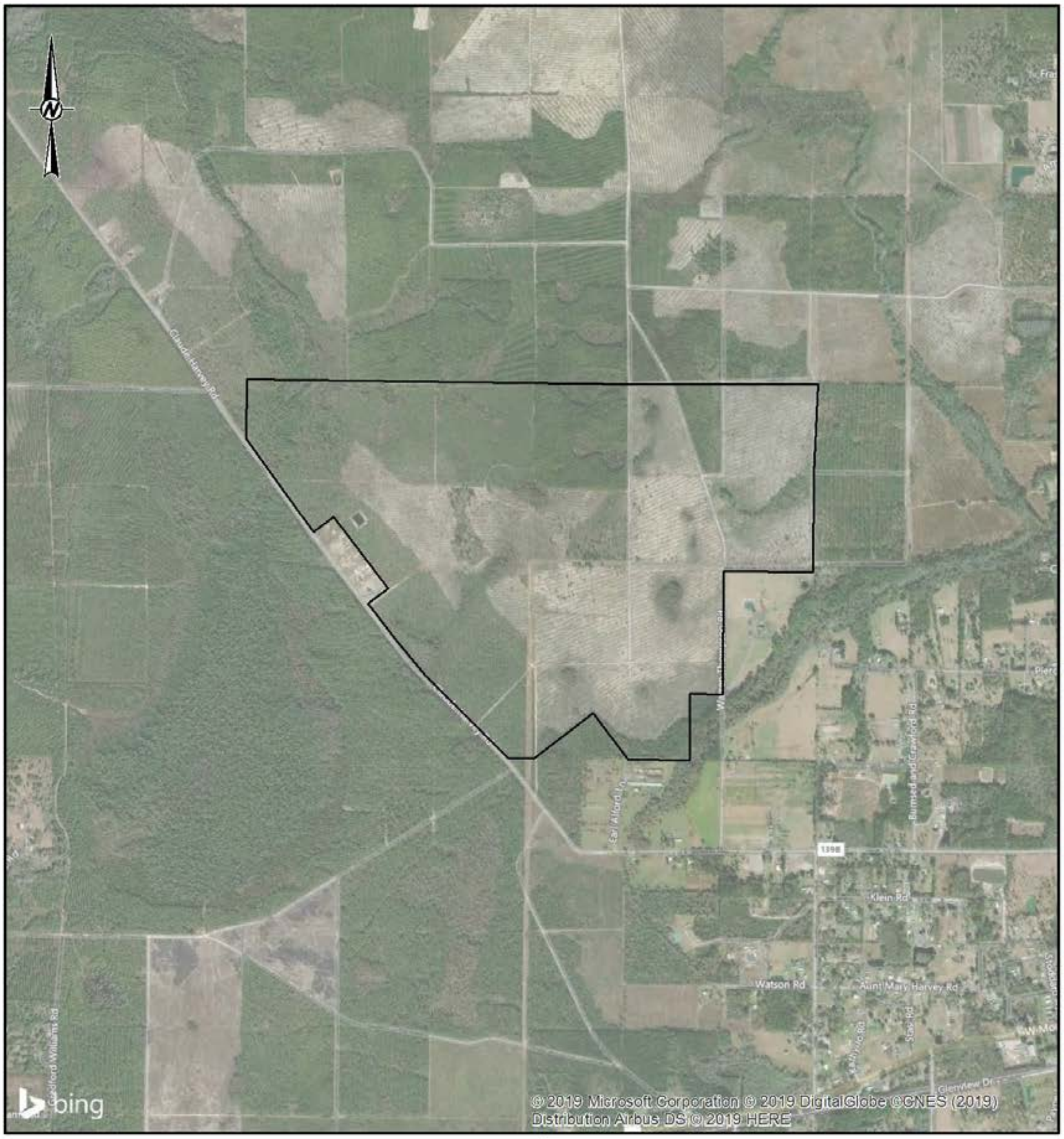
CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A050	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Egret Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
EGRET SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

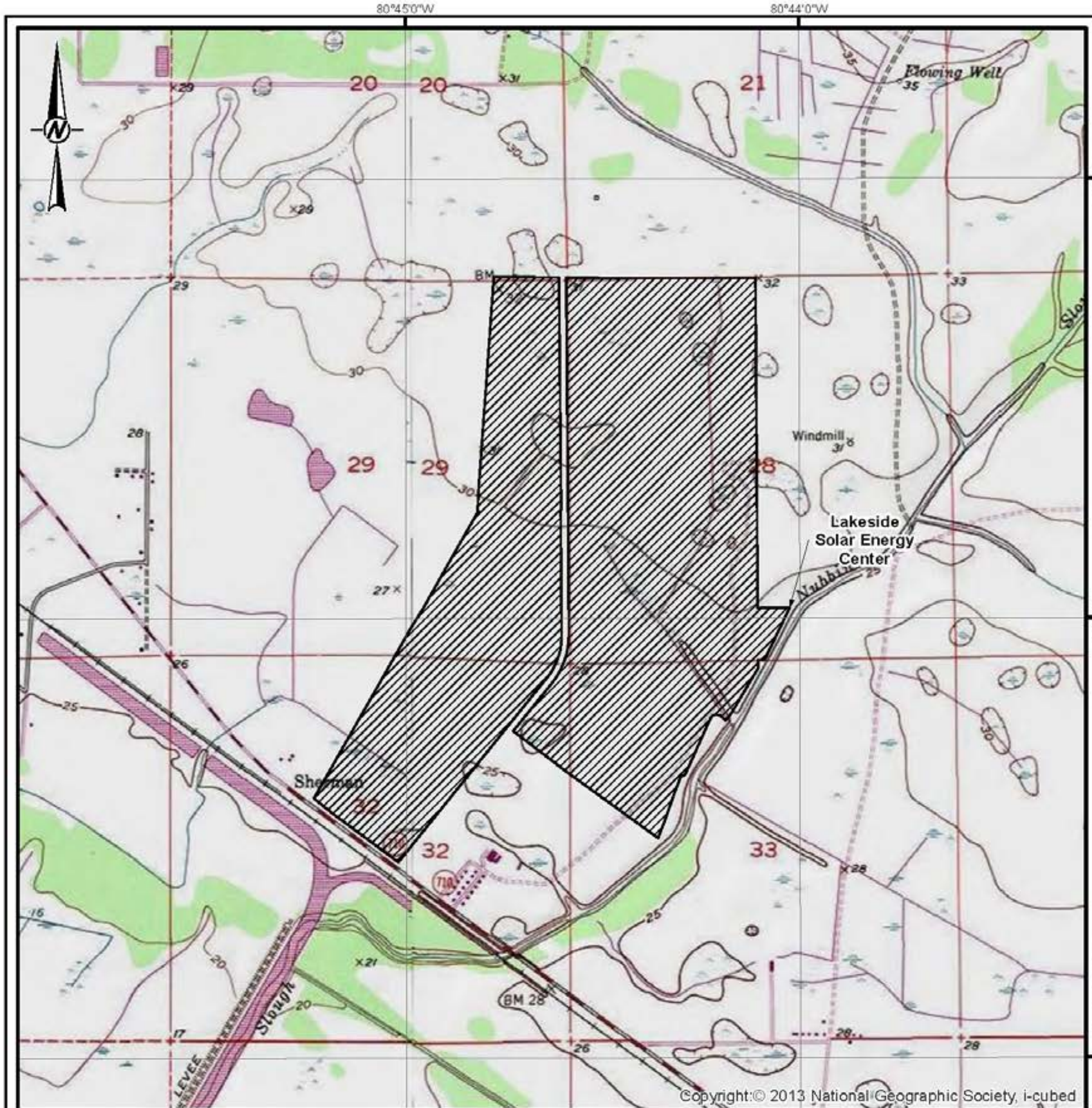
CONSULTANT

	YYYY-MM-DD	2019-03-12
	DESIGNED	NRL
	PREPARED	GFD
	REVIEWED	NRL
	APPROVED	NRL

PROJECT NO.	CONTROL	REV	FIGURE
19119059	A051	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 12: Lakeside Solar Energy Center, Okeechobee County



LEGEND

Lakeside Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: OKEECHOBEE NE & OKEECHOBEE 4 NW NW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

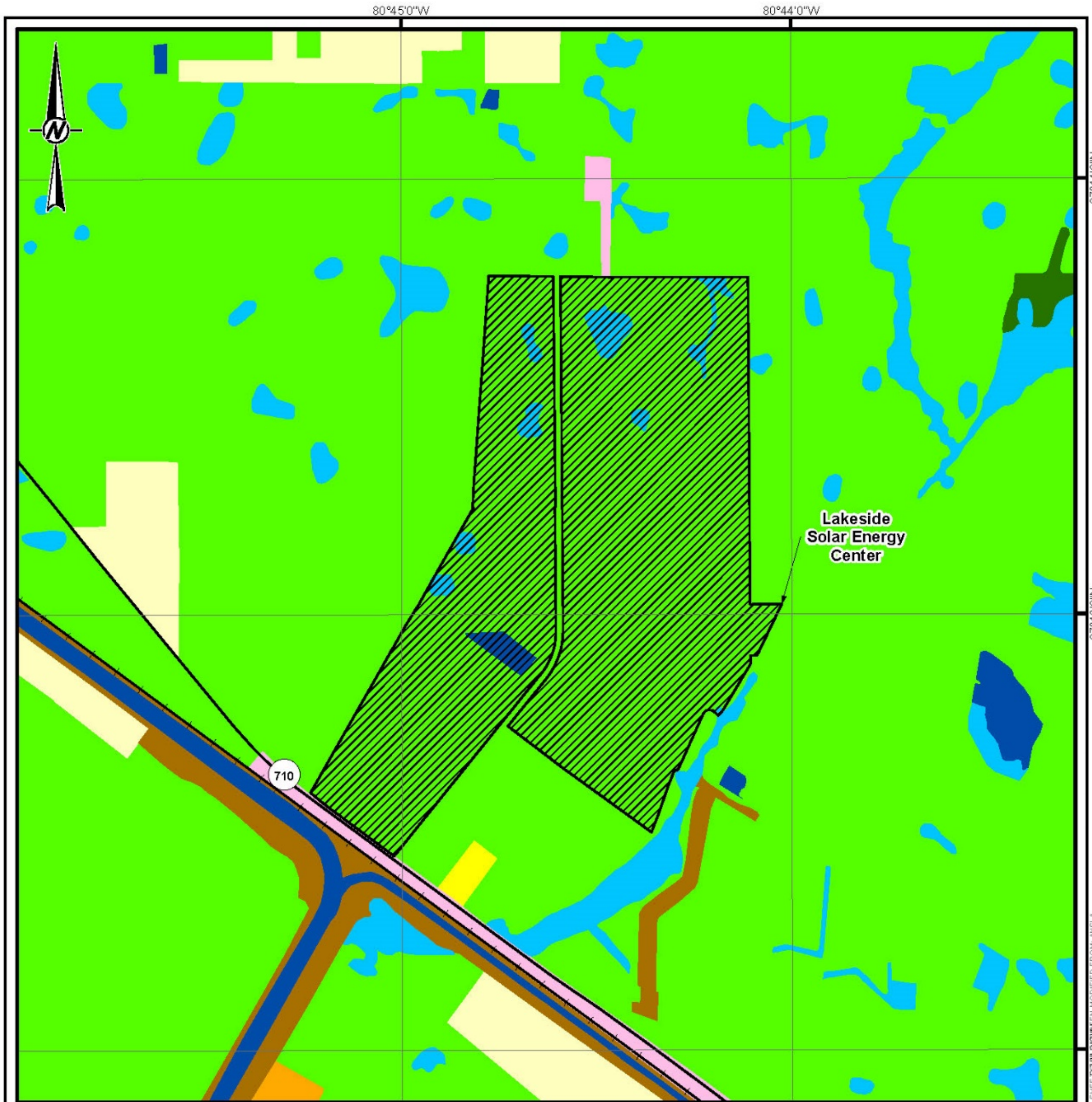
PROJECT
LAKESIDE SOLAR ENERGY CENTER

TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A055	0	1



LEGEND

- Lakeside Solar Energy Center

SFWMD Land Use (2008)

- Low Density Urban
- Medium Density Urban
- High Density Urban
- Agriculture
- Upland Forests
- Water
- Wetlands
- Barren Land
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
LAKESIDE SOLAR ENERGY CENTER

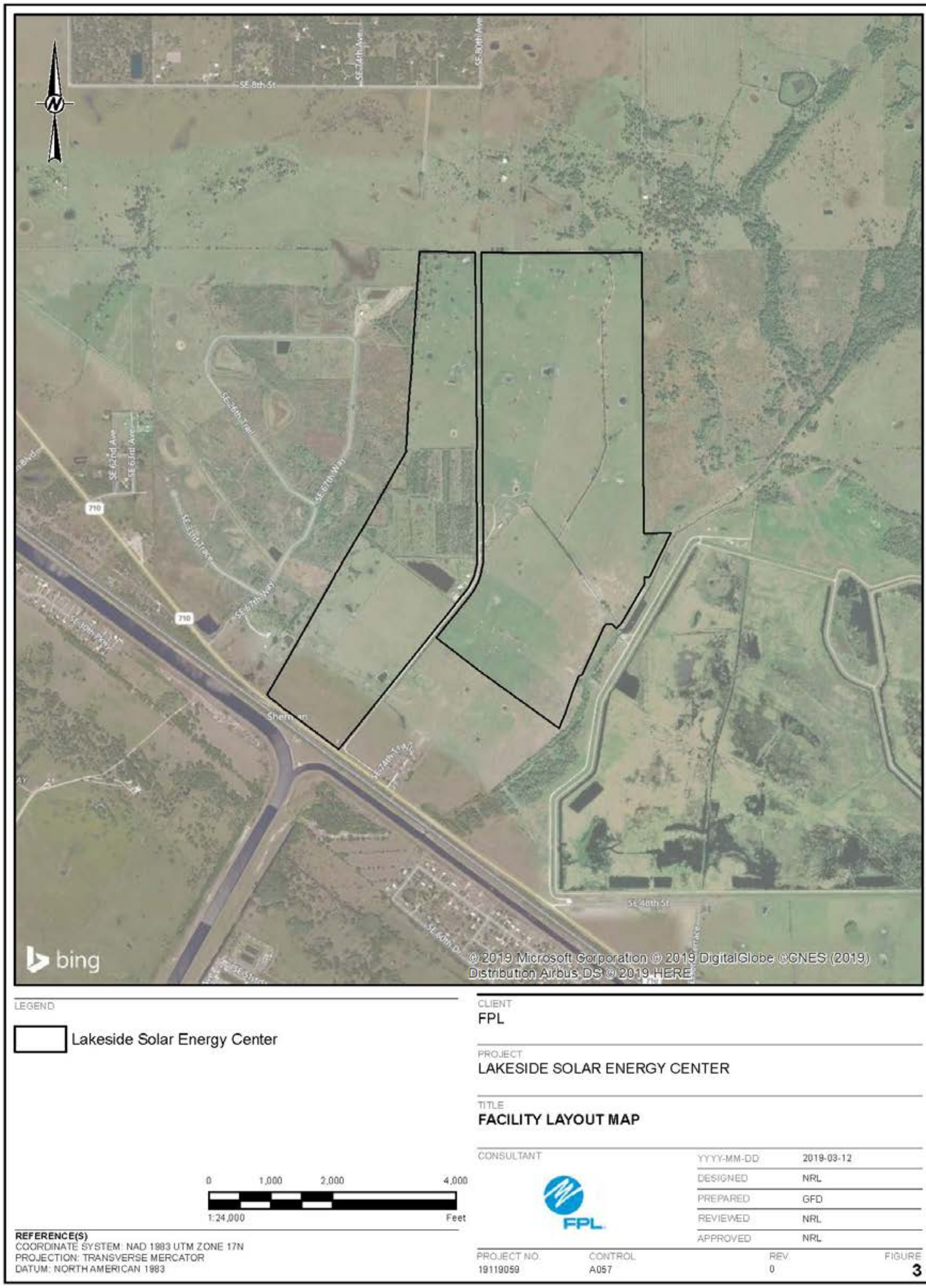
TITLE
LAND USE / LAND COVER MAP

CONSULTANT

FPL

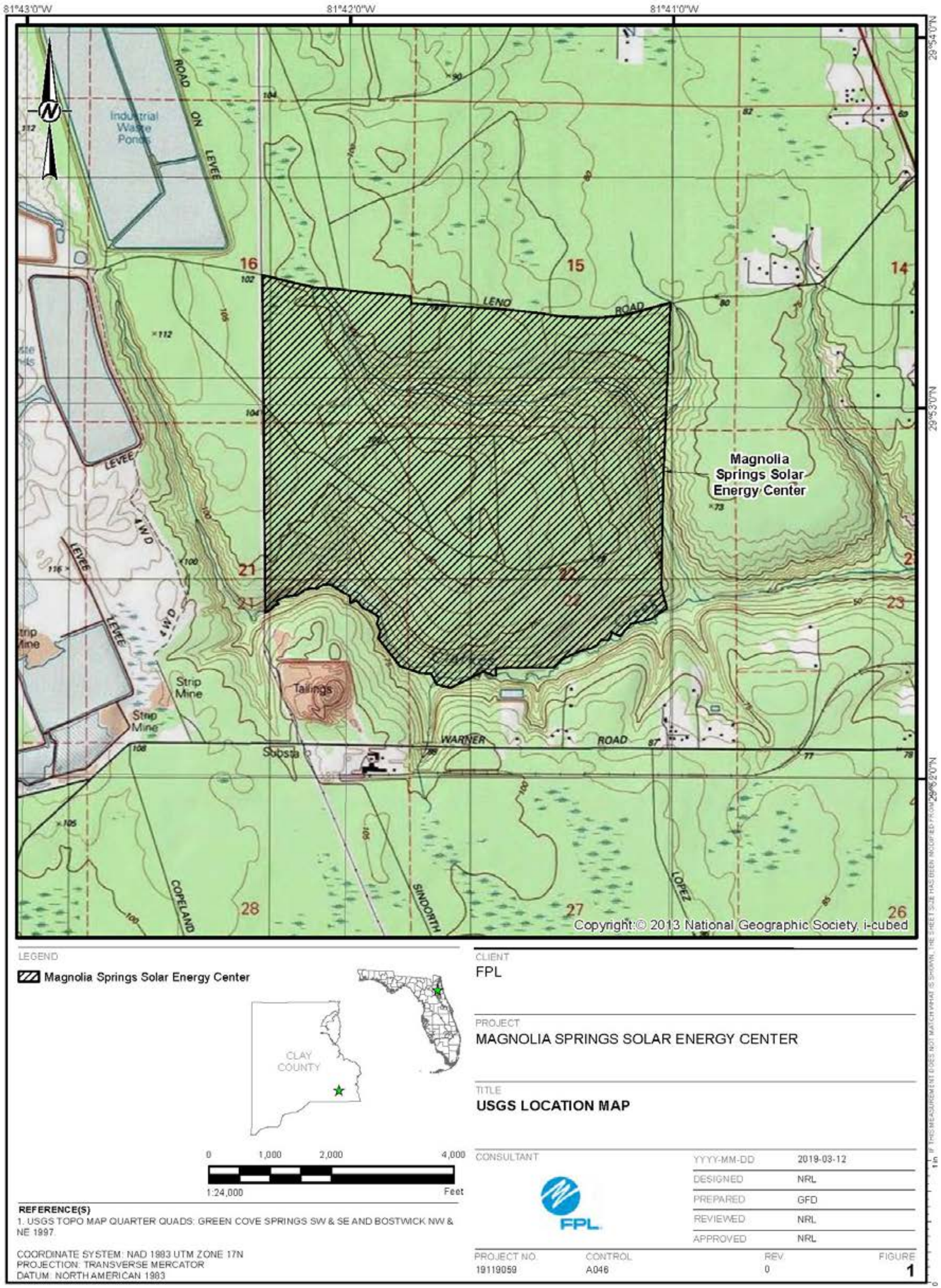
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

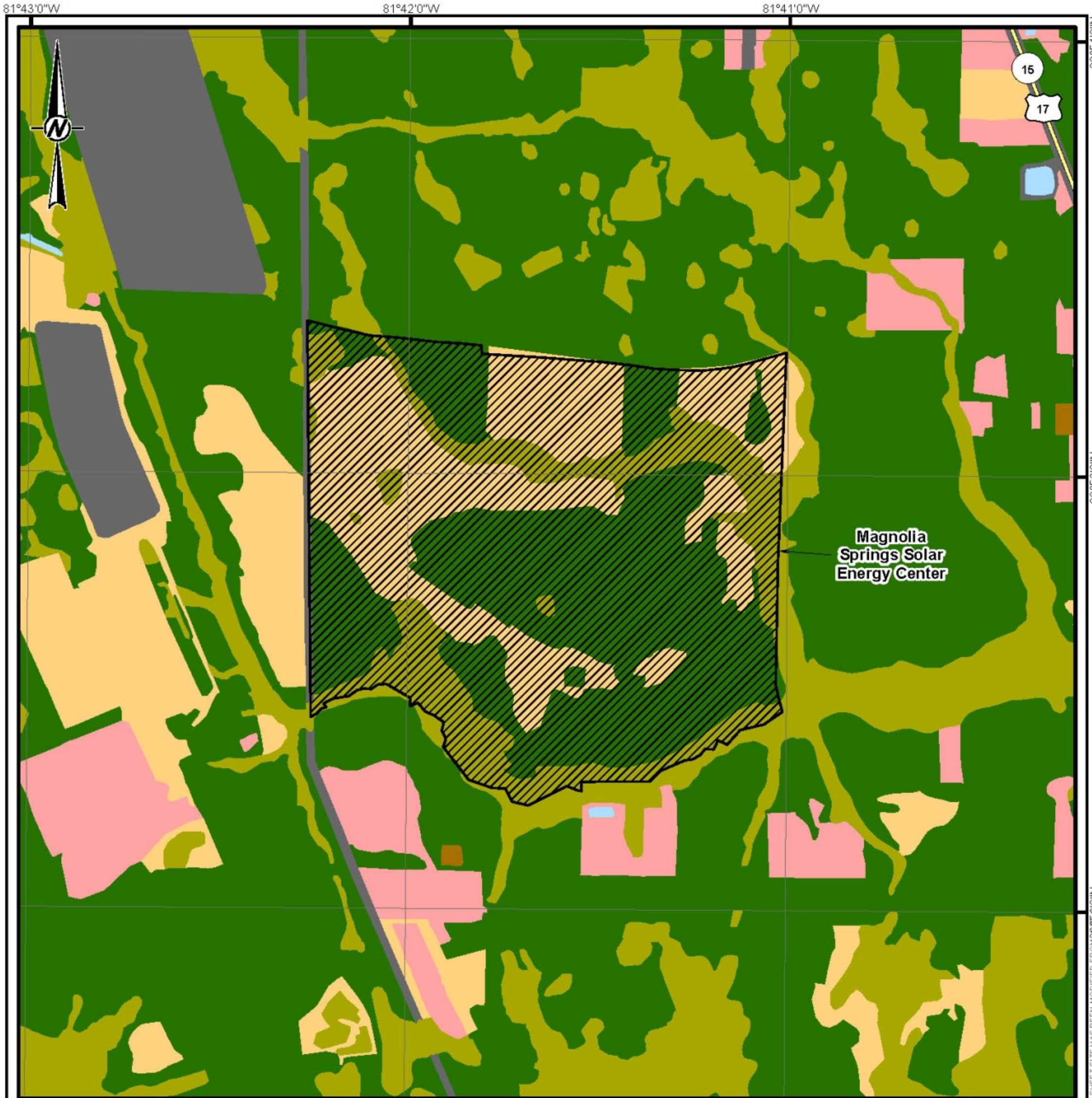
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A056	0	2


SE 8th St
SE 74th Ave
SE 80th Ave
SE 62nd Ave
SE 63rd Ave
SE 67th Way
SE 67th Way
710
710
SE 48th St
bing
© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS © 2019 HERE
LEGEND
Lakeside Solar Energy Center
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
LAKESIDE SOLAR ENERGY CENTER
TITLE
FACILITY LAYOUT MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A057
REV. 0
FIGURE 3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 13: Magnolia Springs Solar Energy Center, Clay County


81°43'0"W
81°42'0"W
81°41'0"W
29°54'0"N
29°53'0"N
29°52'0"N
Industrial Waste Ponds
LEVEE
ROAD
LENO
WARNER
ROAD
Strip Mine
Tailings
Sobsta
COPELAND
SINDORTH
LOPEZ
Magnolia Springs Solar Energy Center
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Magnolia Springs Solar Energy Center
CLAY COUNTY
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: GREEN COVE SPRINGS SW & SE AND BOSTWICK NW & NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
MAGNOLIA SPRINGS SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A046
REV. 0
FIGURE 1



LEGEND

Magnolia Springs Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
MAGNOLIA SPRINGS SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

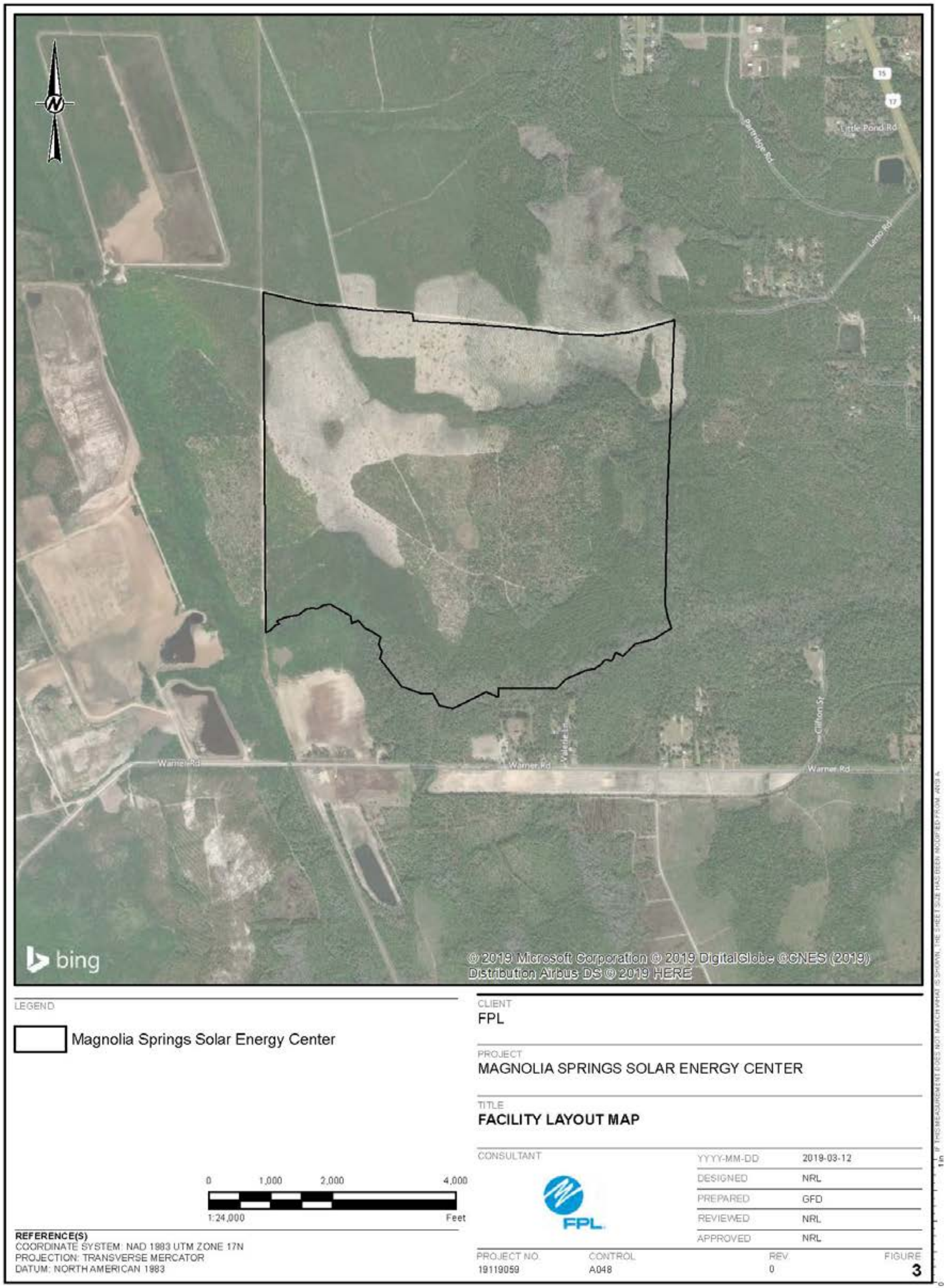
CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A047	0	2

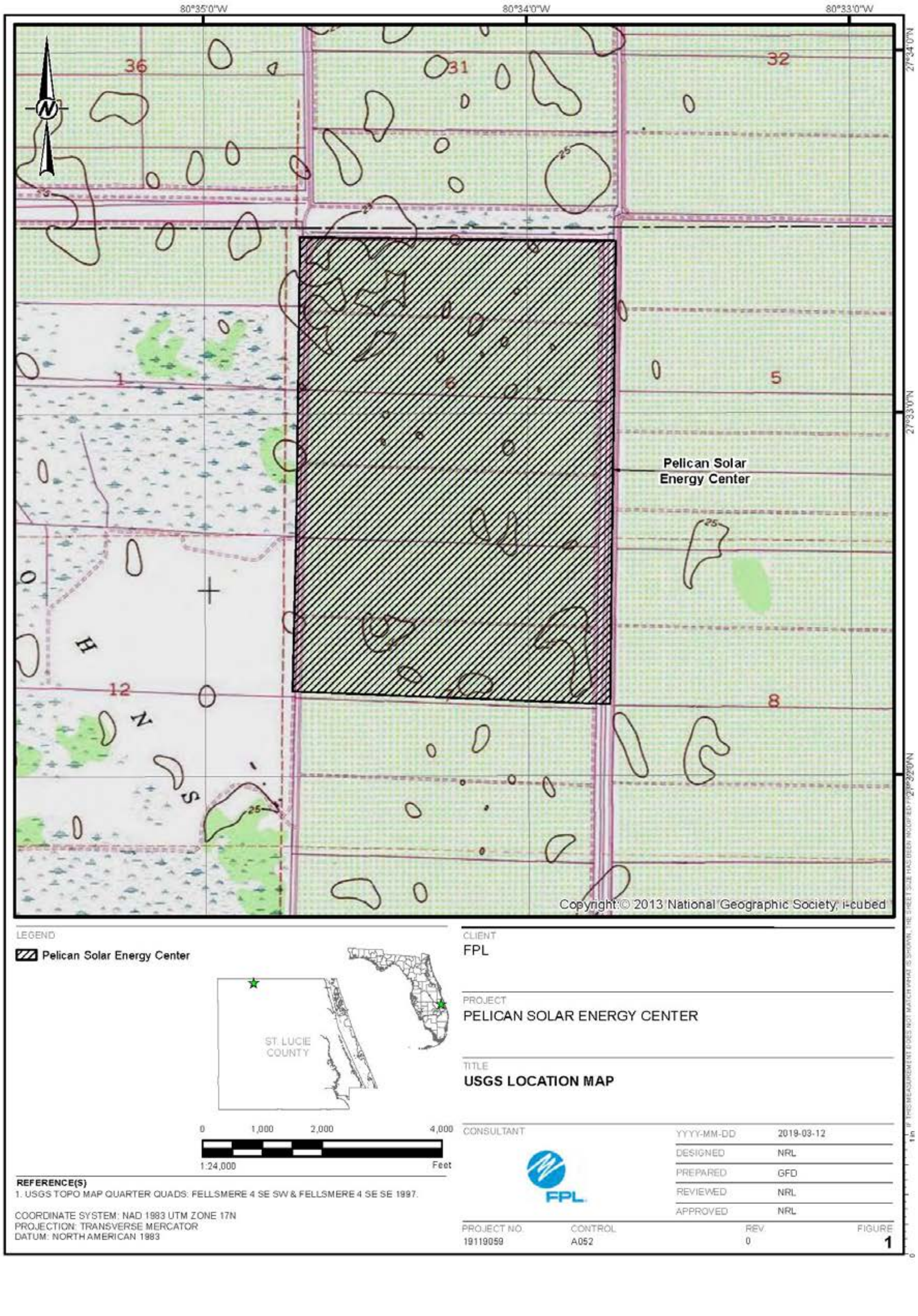
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:

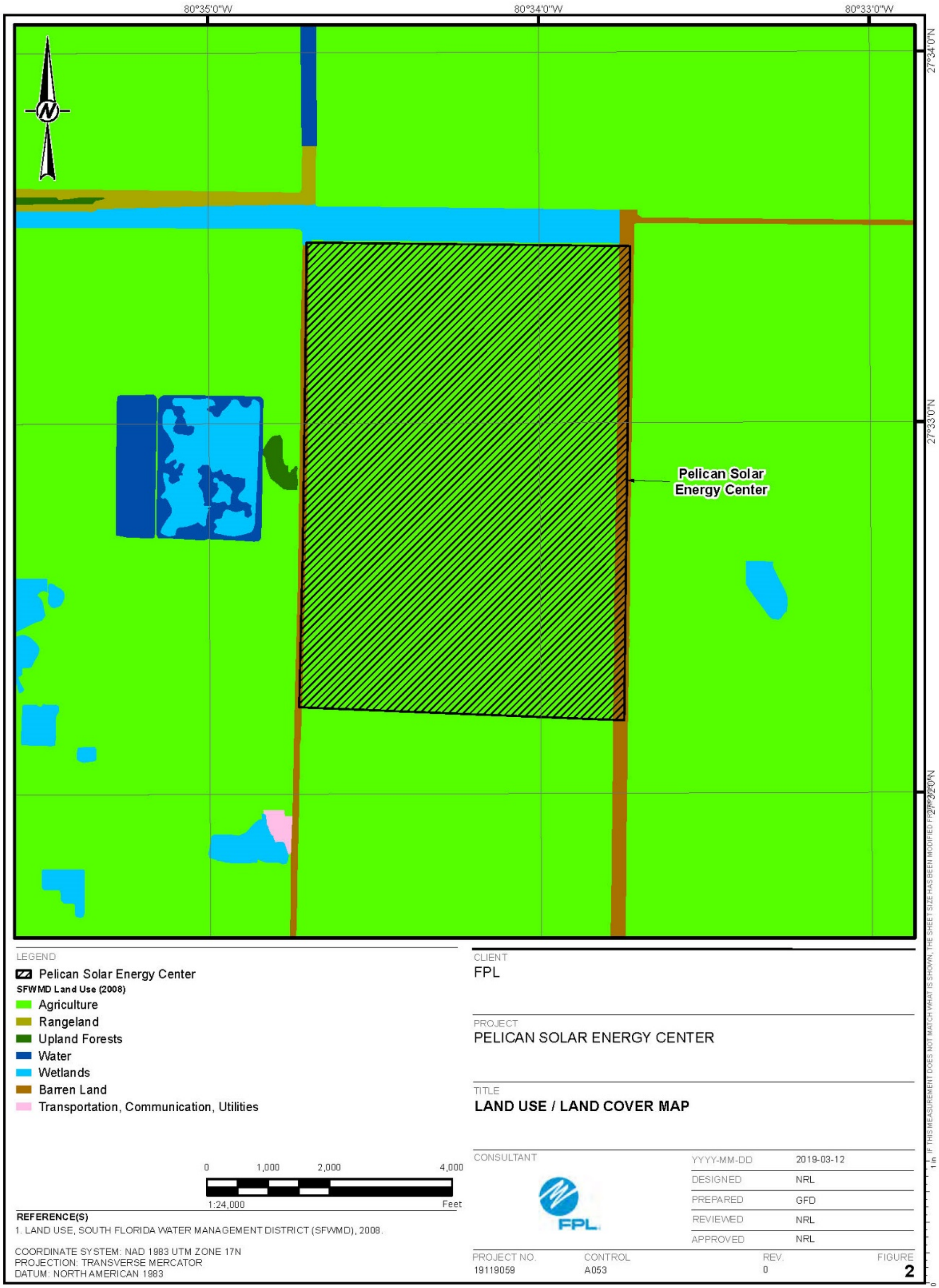


N
Little Pond Rd
Warner Rd
Clifton St
bing
© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS © 2019 HERE
LEGEND
Magnolia Springs Solar Energy Center
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
MAGNOLIA SPRINGS SOLAR ENERGY CENTER
TITLE
FACILITY LAYOUT MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A048
REV. 0
FIGURE 3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 14: Pelican Solar Energy Center, St. Lucie County


80°35'0"W
80°34'0"W
80°33'0"W
27°34'0"N
27°33'0"N
N
36
31
32
1
6
5
12
8
25
Pelican Solar
Energy Center
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Pelican Solar Energy Center
ST. LUCIE
COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: FELLSMERE 4 SE SW & FELLSMERE 4 SE SE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
PELICAN SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A052
REV. 0
FIGURE 1



80°35'0"W
80°34'0"W
80°33'0"W
27°34'0"N
27°33'0"N
27°32'0"N
N
Pelican Solar Energy Center
LEGEND
Pelican Solar Energy Center
SFWMD Land Use (2008)
Agriculture
Rangeland
Upland Forests
Water
Wetlands
Barren Land
Transportation, Communication, Utilities
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
PELICAN SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A053
REV. 0
FIGURE 2

LEGEND

Pelican Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
PELICAN SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

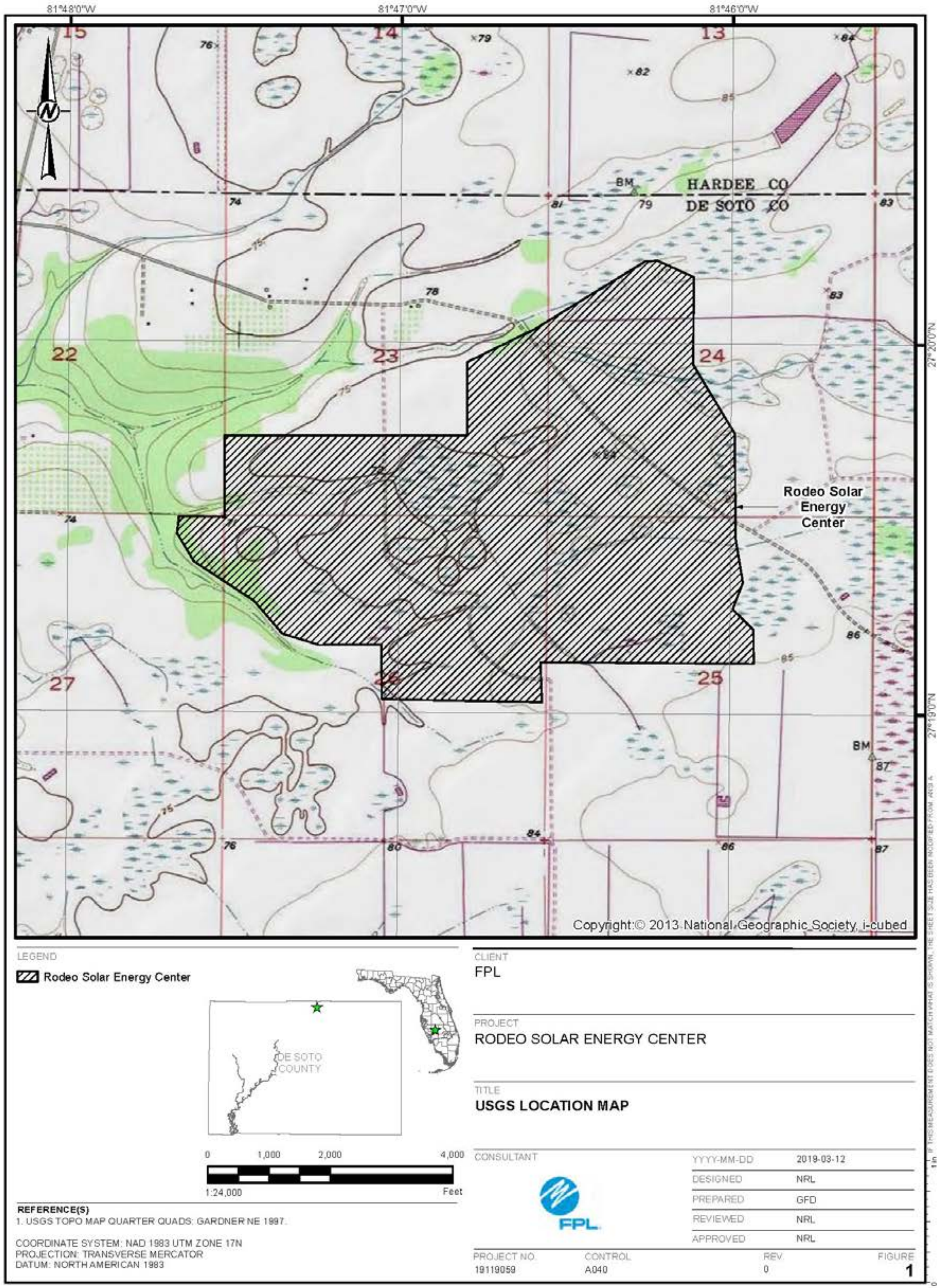
CONSULTANT

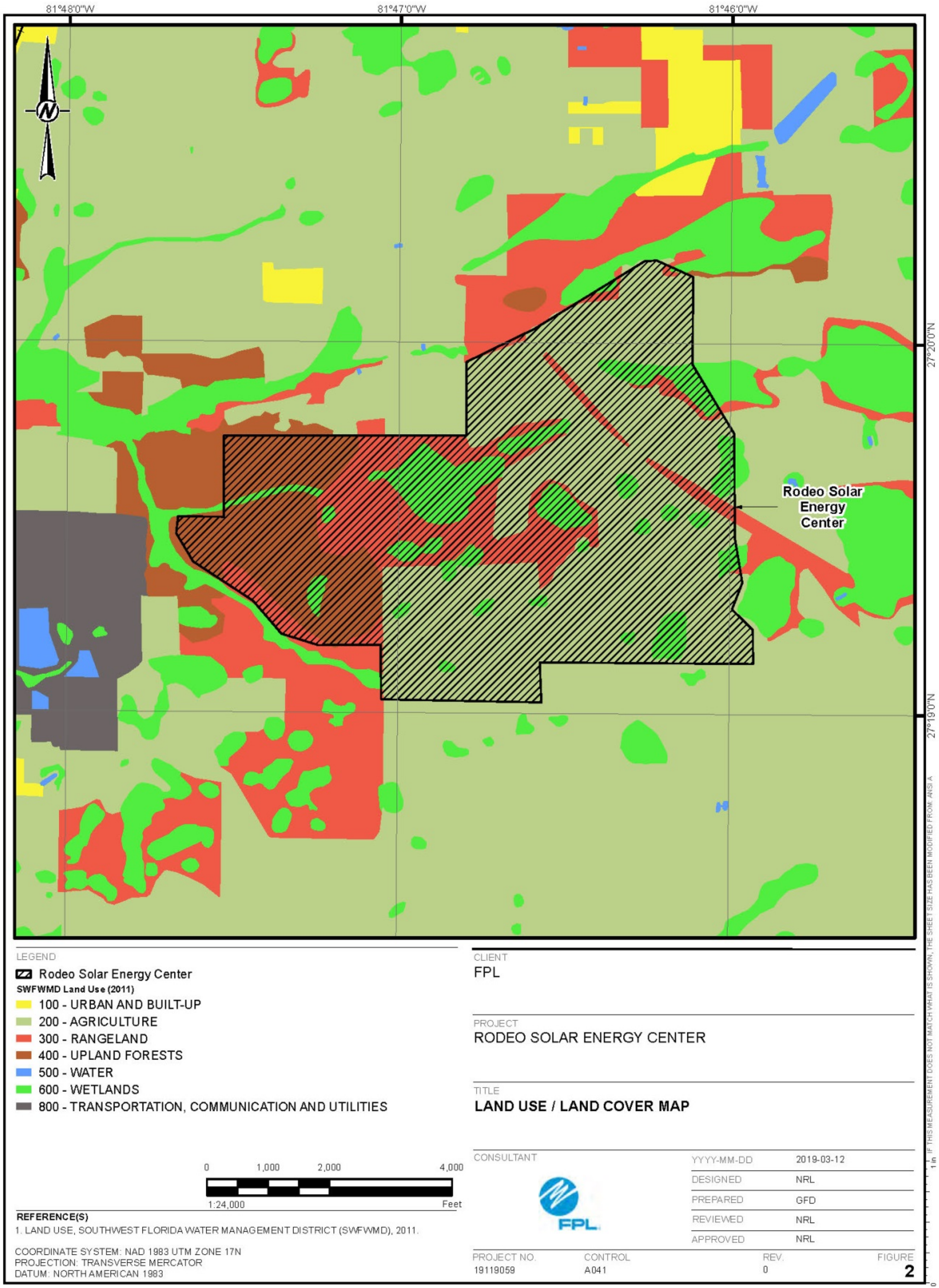
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

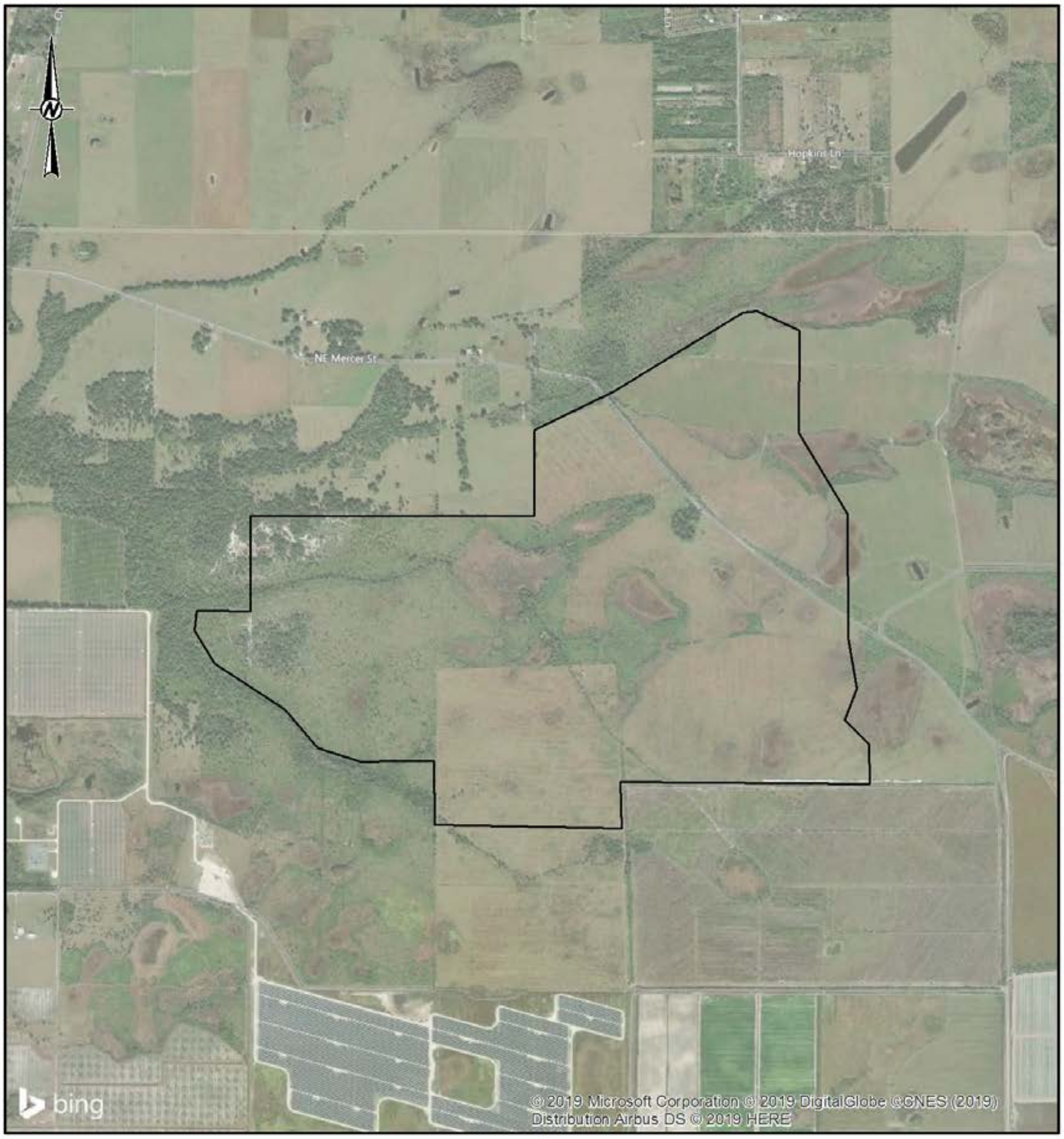
PROJECT NO.	CONTROL	REV	FIGURE
19119059	A054	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 15: Rodeo Solar Energy Center, DeSoto County


81°48'0"W
81°47'0"W
81°46'0"W
27°20'0"N
27°19'0"N
N
15
14
13
22
23
24
27
26
25
HARDEE CO
DE SOTO CO
BM
BM
Rodeo Solar Energy Center
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Rodeo Solar Energy Center
DE SOTO COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: GARDNER NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
RODEO SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A040
REV 0
FIGURE 1


81°48'0"W
81°47'0"W
81°46'0"W
27°20'0"N
27°19'0"N
N
Rodeo Solar Energy Center
LEGEND
Rodeo Solar Energy Center
SWFWMD Land Use (2011)
100 - URBAN AND BUILT-UP
200 - AGRICULTURE
300 - RANGELAND
400 - UPLAND FORESTS
500 - WATER
600 - WETLANDS
800 - TRANSPORTATION, COMMUNICATION AND UTILITIES
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD), 2011.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
RODEO SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A041
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
1 in
0



LEGEND

Rodeo Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
RODEO SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

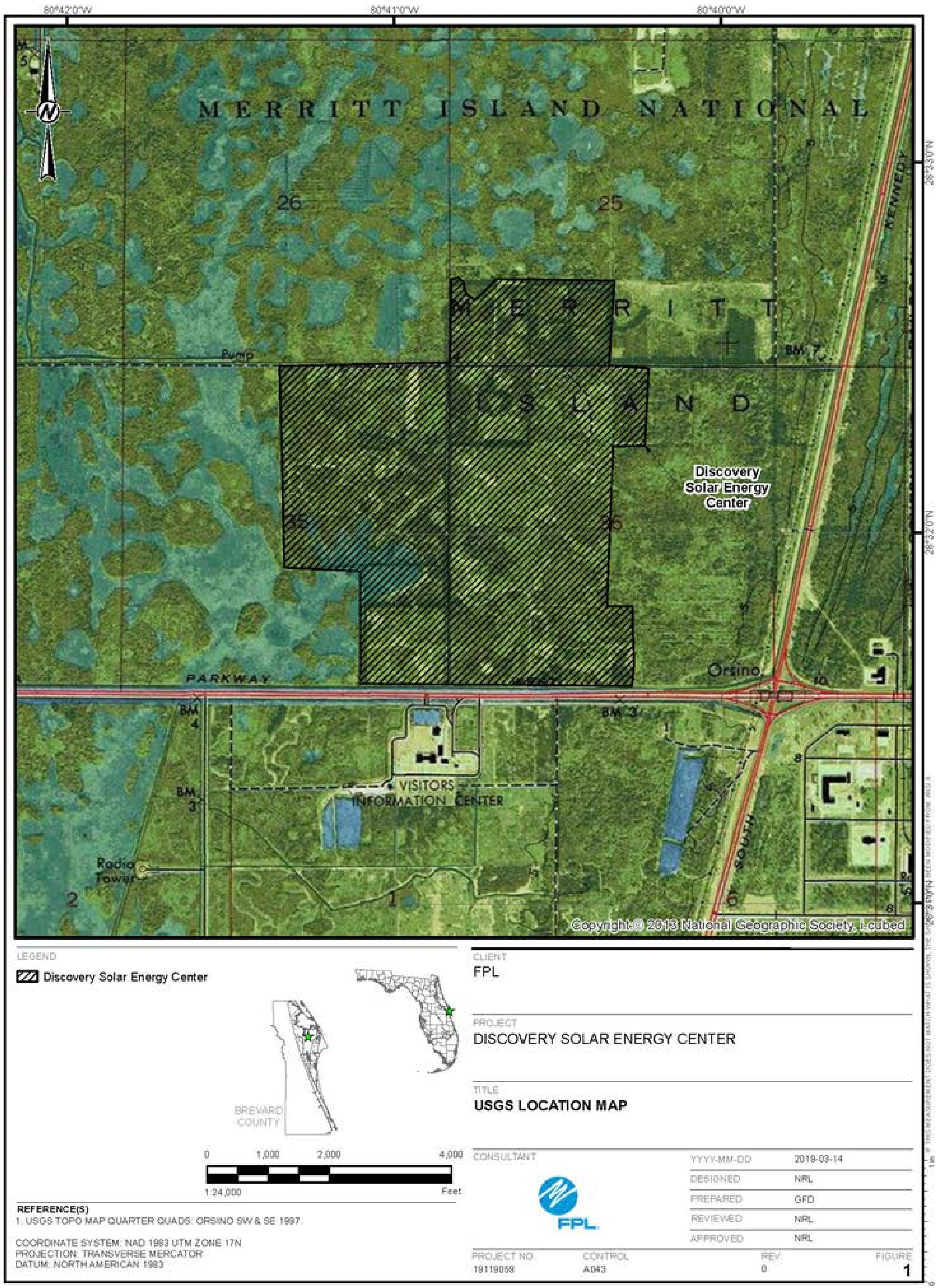
CONSULTANT

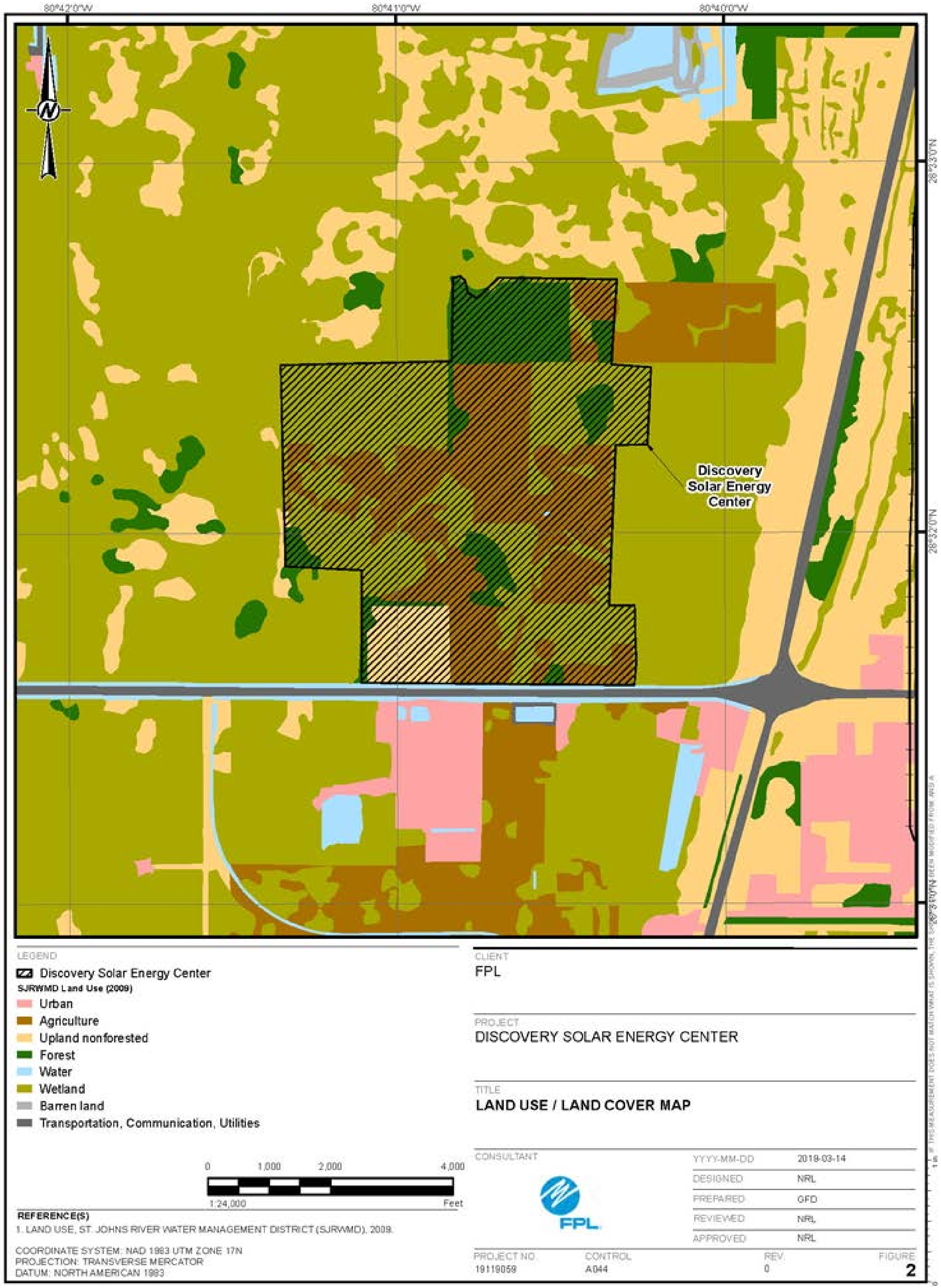
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

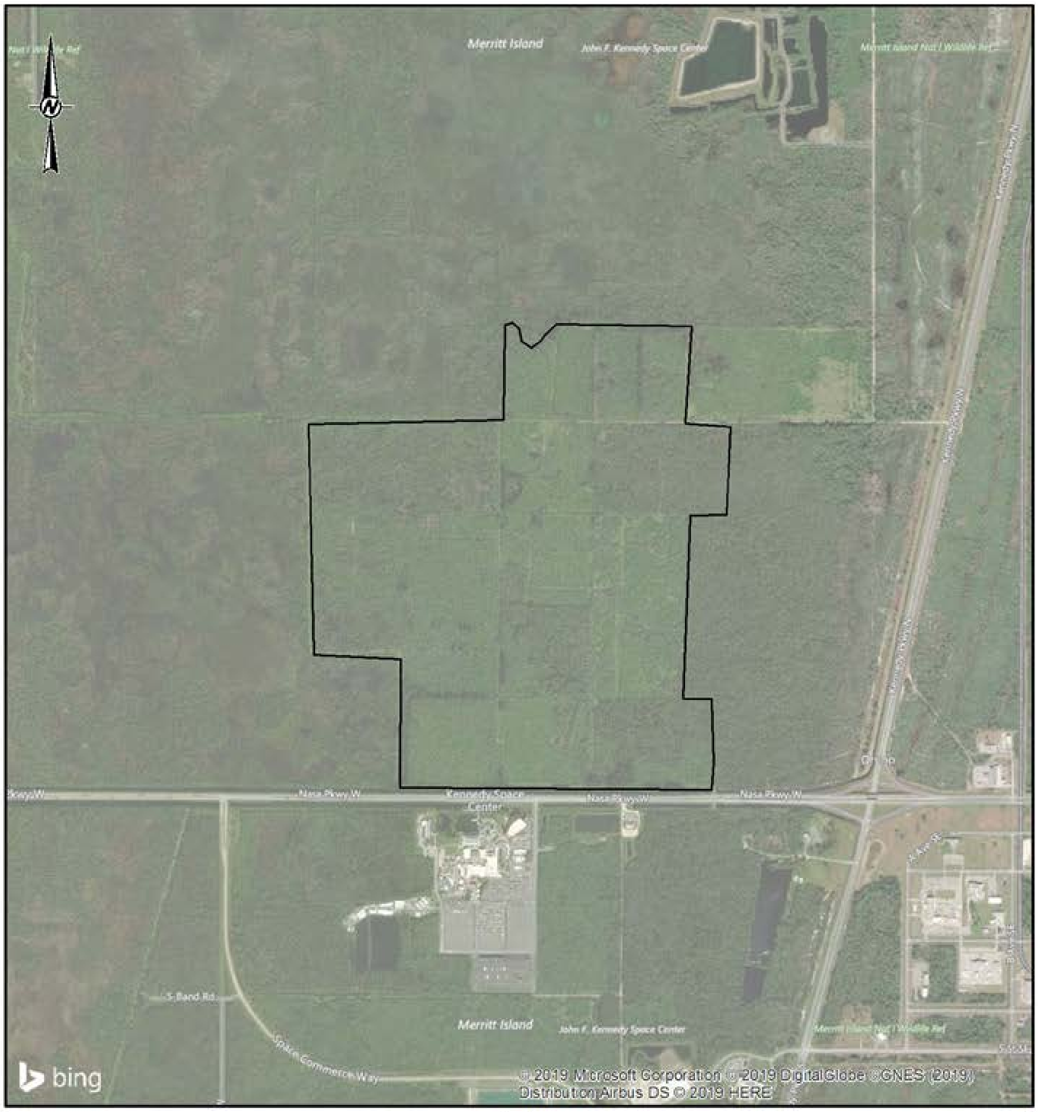
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A042	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 16: Discovery Solar Energy Center, Brevard County


80°42'0"W
80°41'0"W
80°40'0"W
28°33'0"N
28°32'0"N
MERRITT ISLAND NATIONAL
MERRITT
ISLAND
26
25
35
36
Pump
BM 7
KENNEDY
Discovery Solar Energy Center
PARKWAY
Orsino
BM 3
VISITORS INFORMATION CENTER
SOUTH
Radio Tower
2
1
6
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Discovery Solar Energy Center
BREVARD COUNTY
0 1,000 2,000 4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: ORSINO SW & SE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
DISCOVERY SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A043
REV. 0
FIGURE 1


80°42'0"W
80°41'0"W
80°40'0"W
28°33'0"N
28°32'0"N
28°31'0"N
N
Discovery Solar Energy Center
LEGEND
Discovery Solar Energy Center
SJRWMD Land Use (2009)
Urban
Agriculture
Upland nonforested
Forest
Water
Wetland
Barren land
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
DISCOVERY SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119058
CONTROL A044
REV. 0
FIGURE 2



LEGEND

Discovery Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
DISCOVERY SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

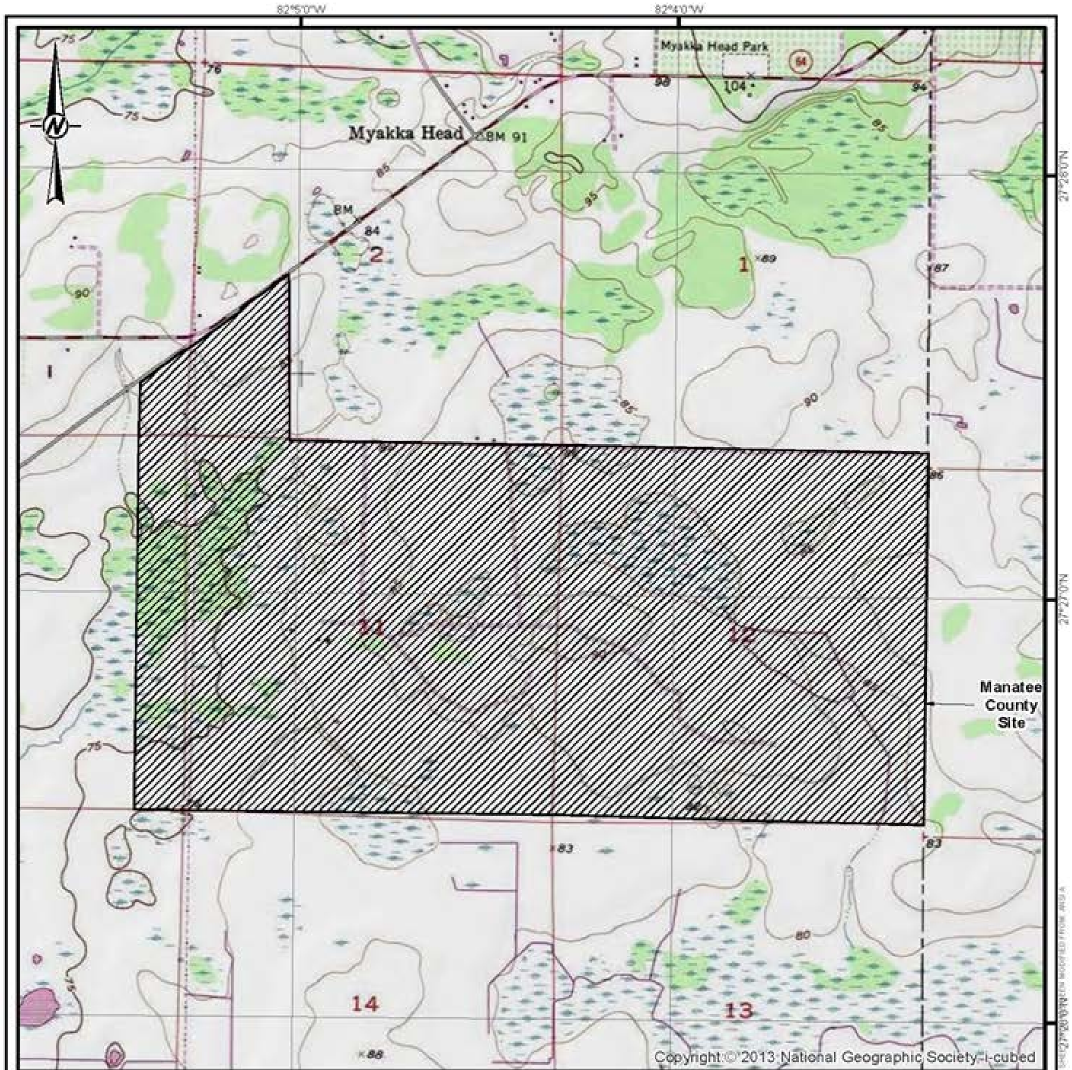
FPL

YYYY-MM-DD	2019-03-14
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A045	0	3

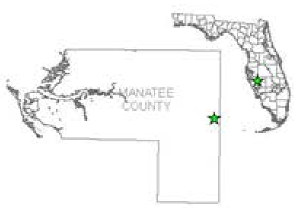
Environmental and Land Use Information: Supplemental Information

Preferred Site # 17: Manatee County Site, Manatee County



LEGEND

Manatee County Site



0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: MYAKKA HEAD NW & MYAKKA HEAD NE 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
MANATEE COUNTY SITE

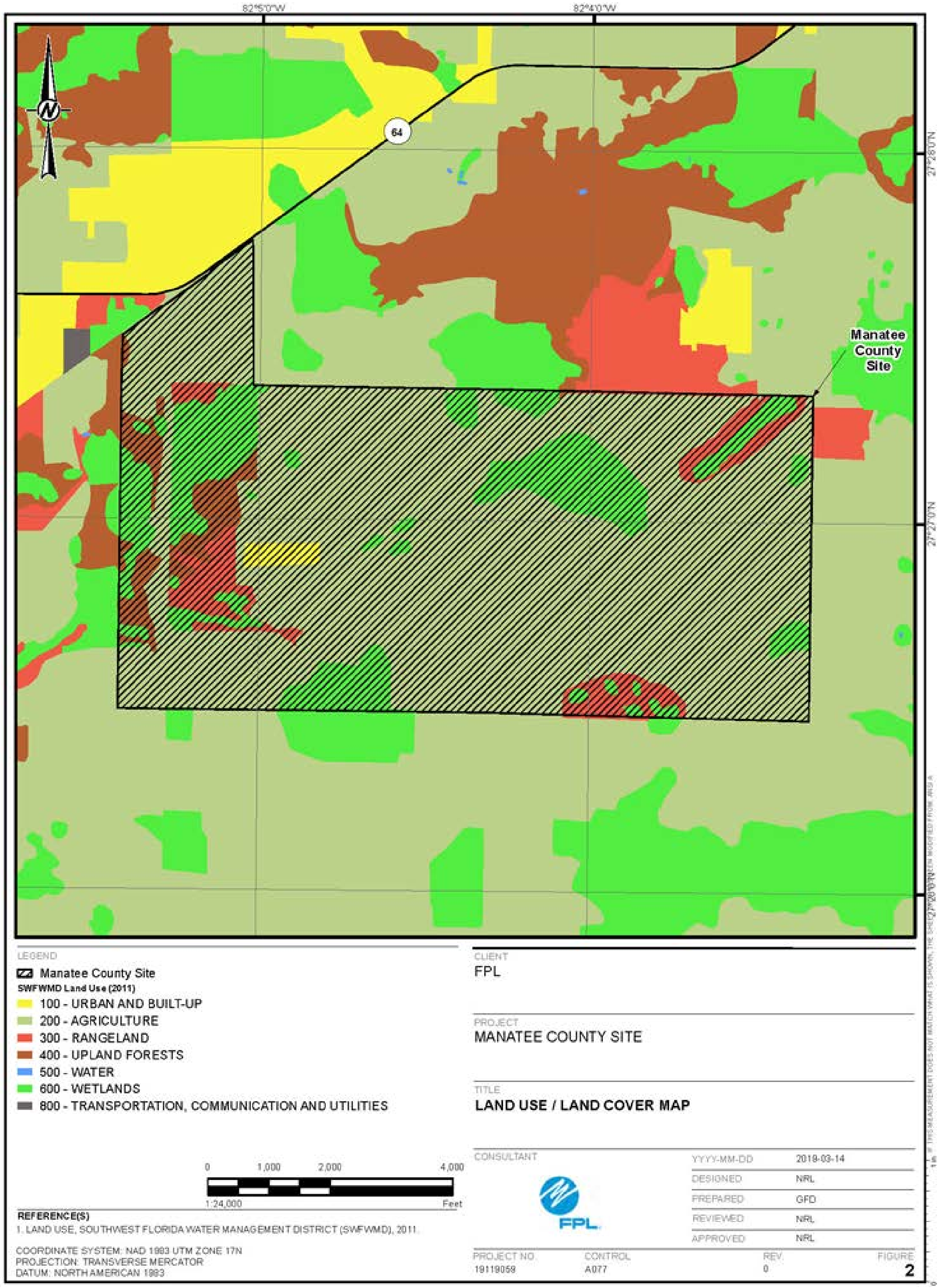
TITLE
USGS LOCATION MAP

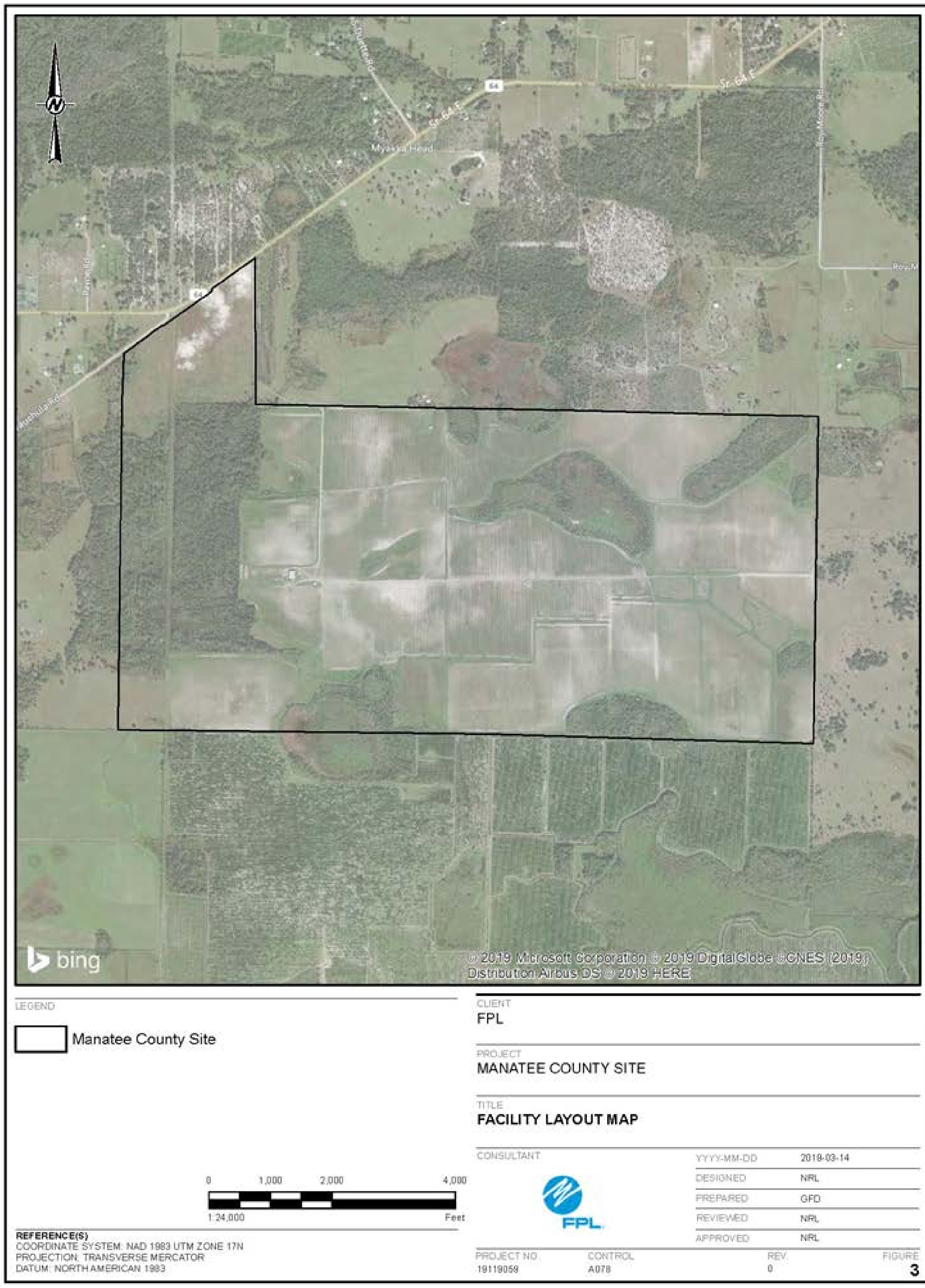
CONSULTANT

FPL

YYYY-MM-DD	2019-03-14
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A076	0	1

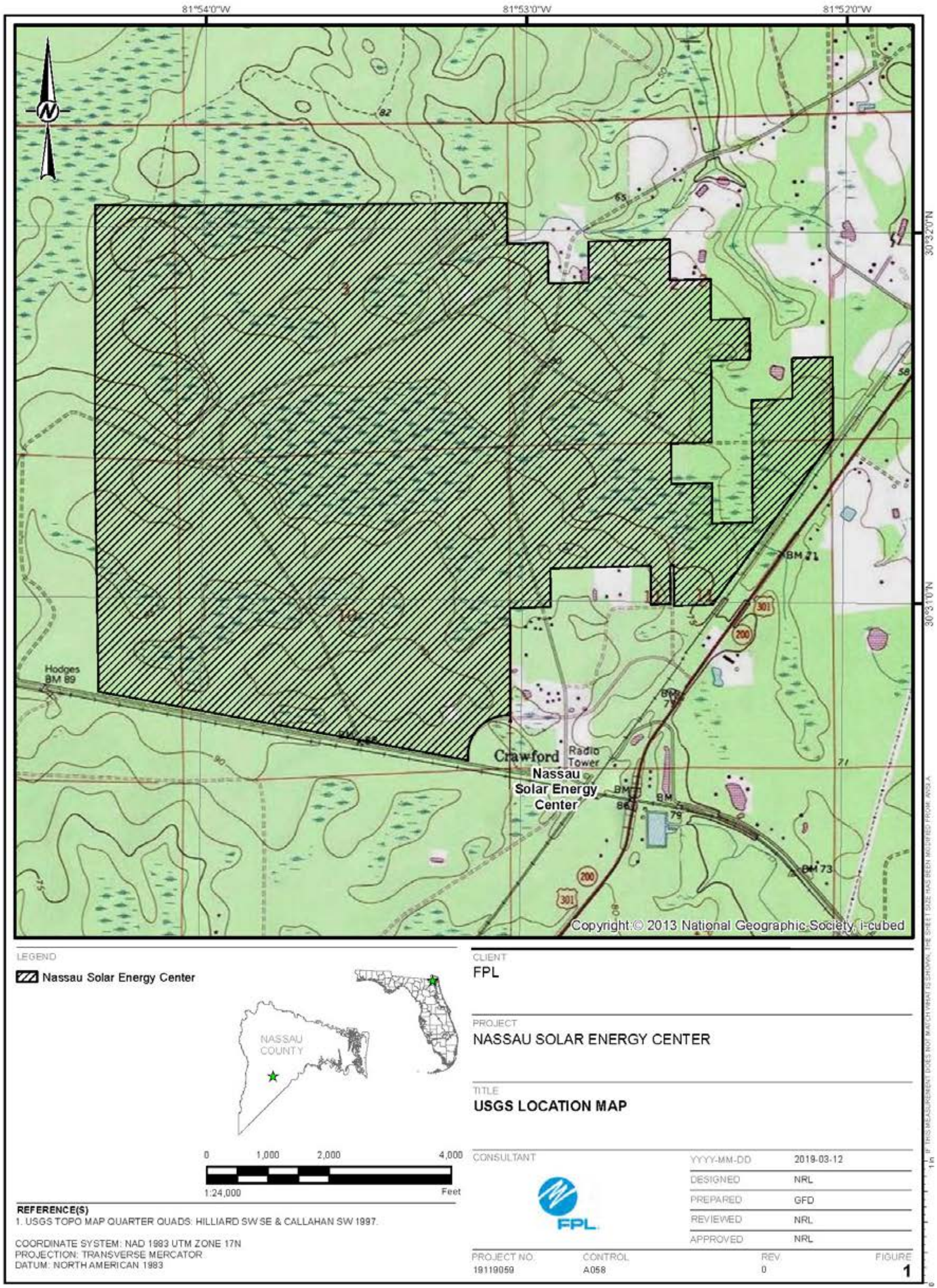

82°5'0"W
82°4'0"W
27°28'0"N
27°27'0"N
64
Manatee County Site
LEGEND
Manatee County Site
SWFWMD Land Use (2011)
100 - URBAN AND BUILT-UP
200 - AGRICULTURE
300 - RANGELAND
400 - UPLAND FORESTS
500 - WATER
600 - WETLANDS
800 - TRANSPORTATION, COMMUNICATION AND UTILITIES
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD), 2011.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
MANATEE COUNTY SITE
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
YYYY-MM-DD 2018-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A077
REV. 0
FIGURE 2

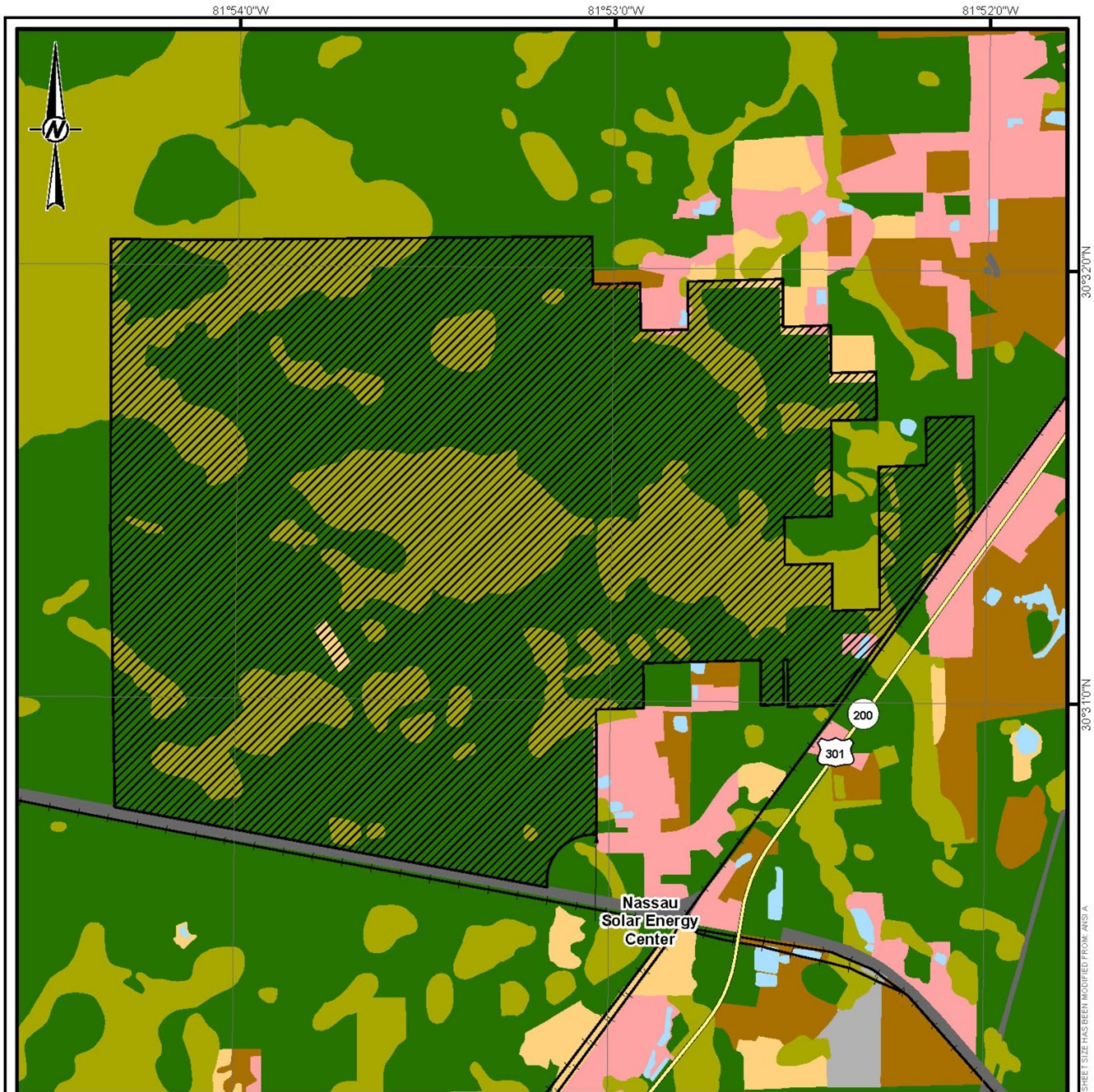


Myakka Head
Sr 64 E
64
bing
© 2019 Microsoft Corporation © 2019 DigitalGlobe ©CNES (2019) Distribution Airbus DS © 2019 HERE
LEGEND
Manatee County Site
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
MANATEE COUNTY SITE
TITLE
FACILITY LAYOUT MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A078
REV. 0
FIGURE 3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 18: Nassau Solar Energy Center, Nassau County


81°54'0"W
81°53'0"W
81°52'0"W
30°32'0"N
30°31'0"N
Hodges
BM 89
Crawford
Radio Tower
Nassau
Solar Energy
Center
BM 71
BM 73
301
200
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Nassau Solar Energy Center
NASSAU COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: HILLIARD SW SE & CALLAHAN SW 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
NASSAU SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A058
REV. 0
FIGURE 1



LEGEND

Nassau Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Barren land
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
NASSAU SOLAR ENERGY CENTER

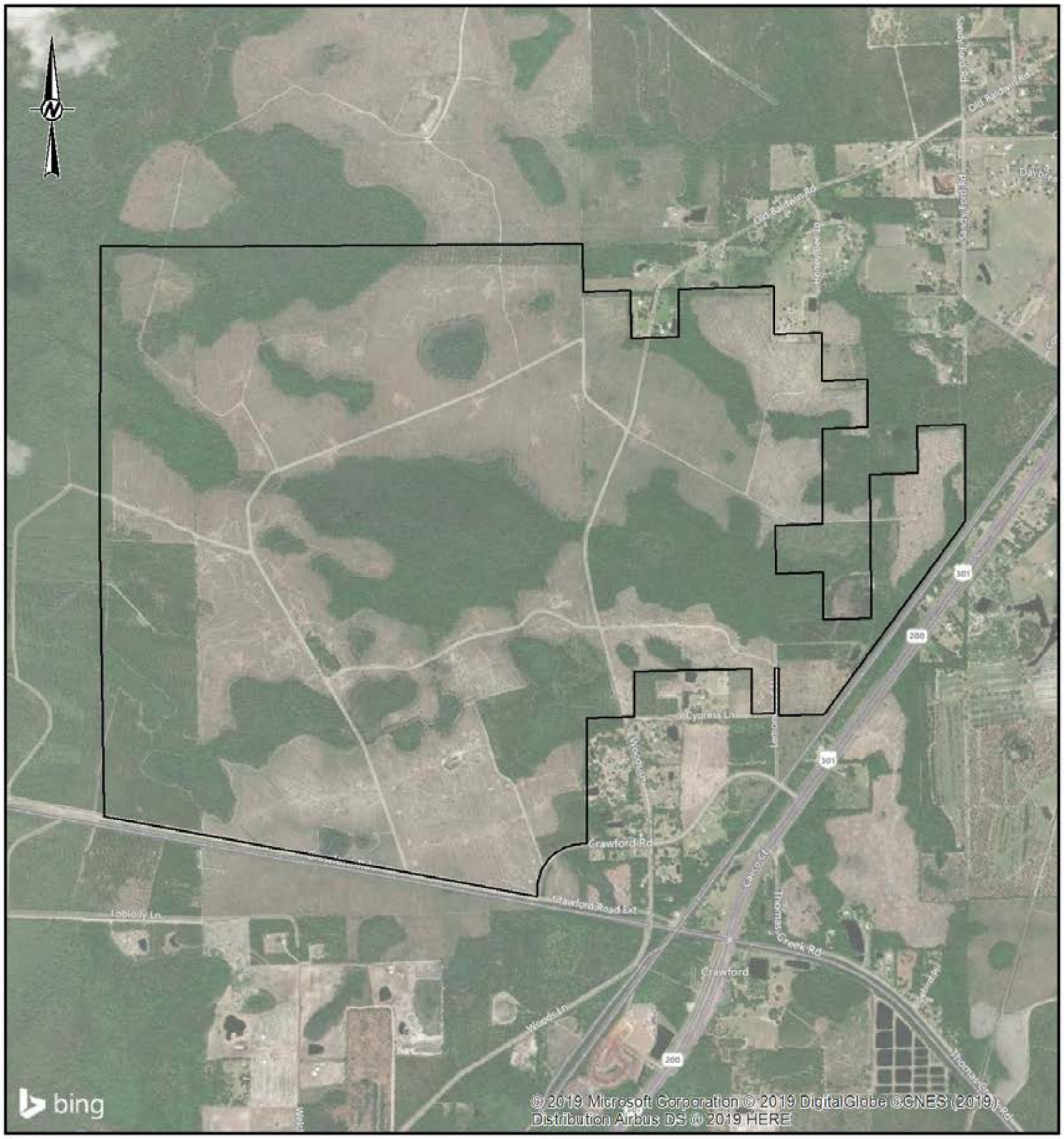
TITLE
LAND USE / LAND COVER MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A059	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Nassau Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
NASSAU SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

FPL

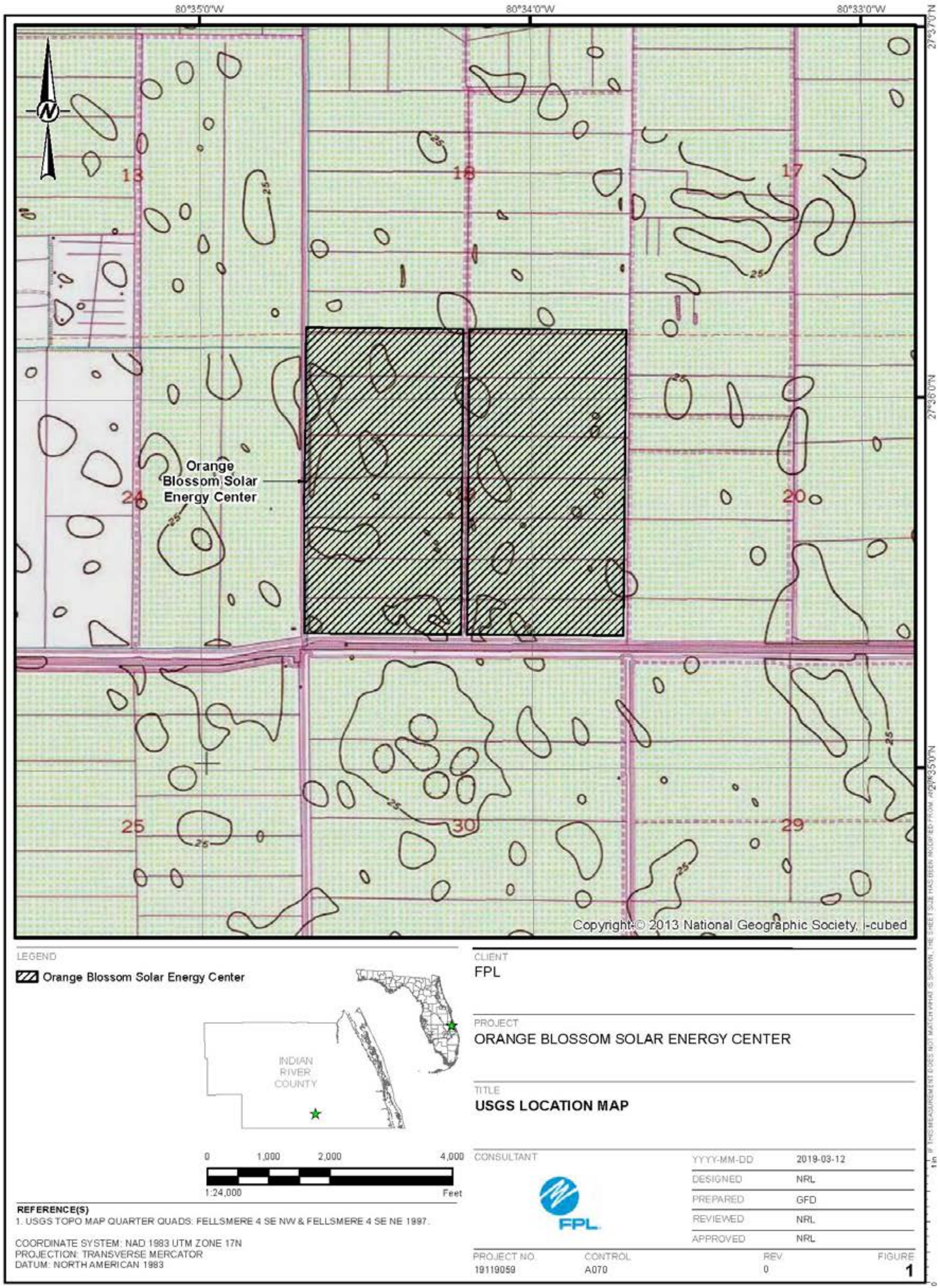
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A060	0	3

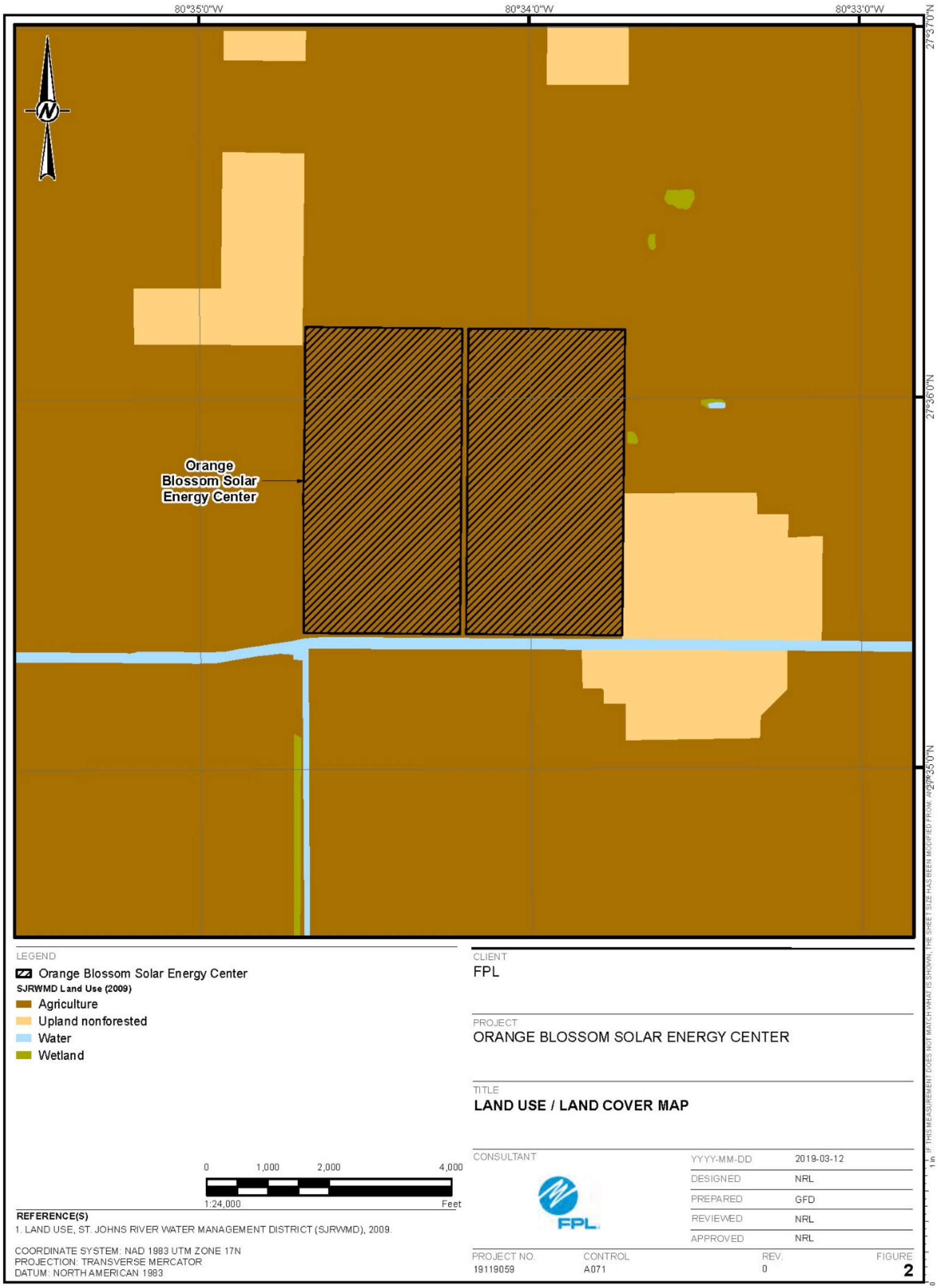
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information: Supplemental Information

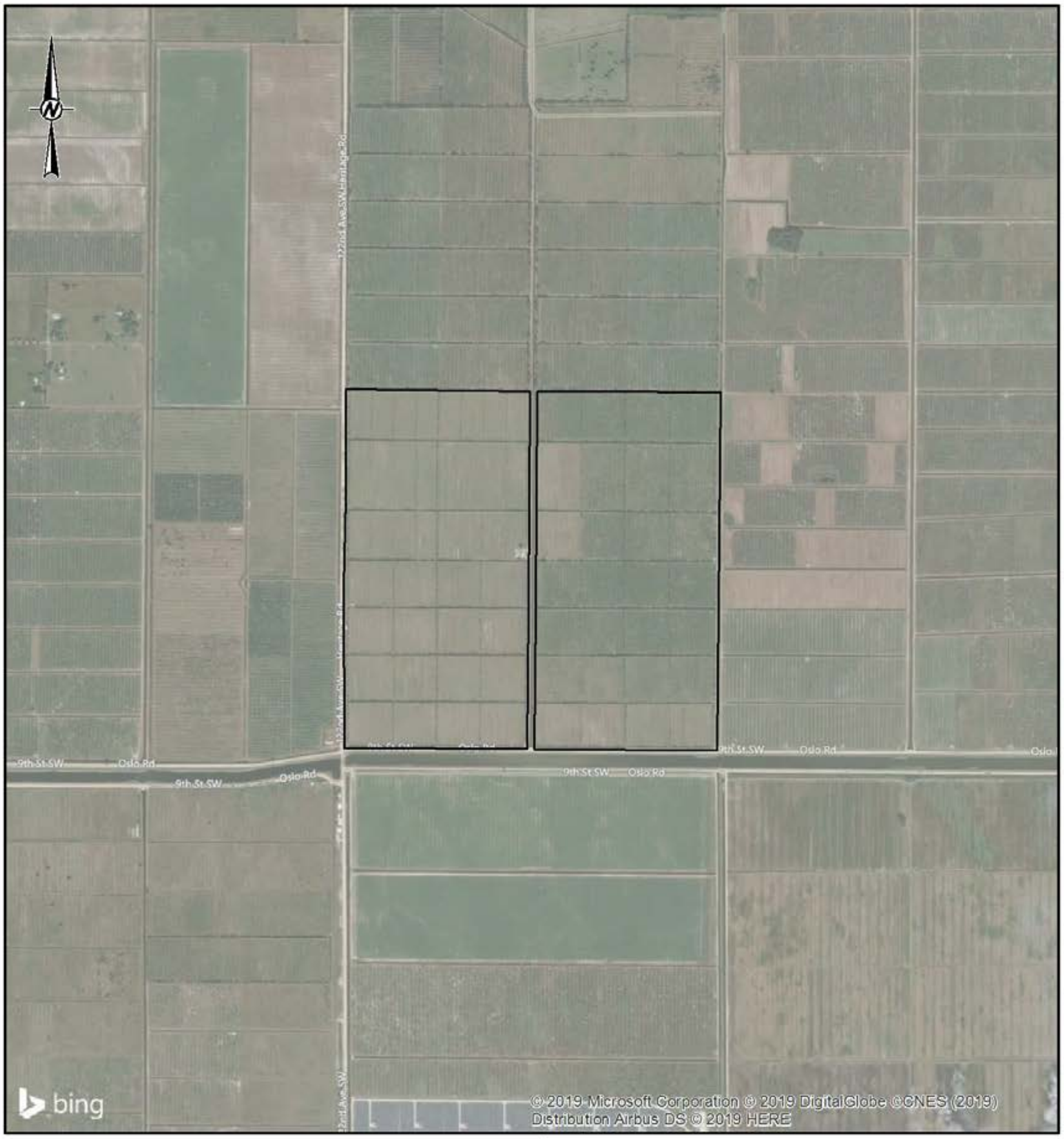
Preferred Site # 19: Orange Blossom Solar Energy Center, Indian River County



80°35'0"W
80°34'0"W
80°33'0"W
27°37'0"N
27°36'0"N
27°35'0"N
N
13
18
17
24
20
25
30
29
25
Orange Blossom Solar Energy Center
Copyright: © 2013 National Geographic Society, i-cubed
LEGEND
Orange Blossom Solar Energy Center
INDIAN RIVER COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: FELLSMERE 4 SE NW & FELLSMERE 4 SE NE 1987.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
ORANGE BLOSSOM SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A070
REV. 0
FIGURE 1



80°35'0"W
80°34'0"W
80°33'0"W
27°37'0"N
27°36'0"N
27°35'0"N
N
Orange Blossom Solar Energy Center
LEGEND
Orange Blossom Solar Energy Center
SJRWMD Land Use (2009)
Agriculture
Upland nonforested
Water
Wetland
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
ORANGE BLOSSOM SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A071
REV. 0
FIGURE 2



LEGEND

Orange Blossom Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
ORANGE BLOSSOM SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A072	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 20: Palm Bay Solar Energy Center, Brevard County

REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: FELLSMERE SW NE 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

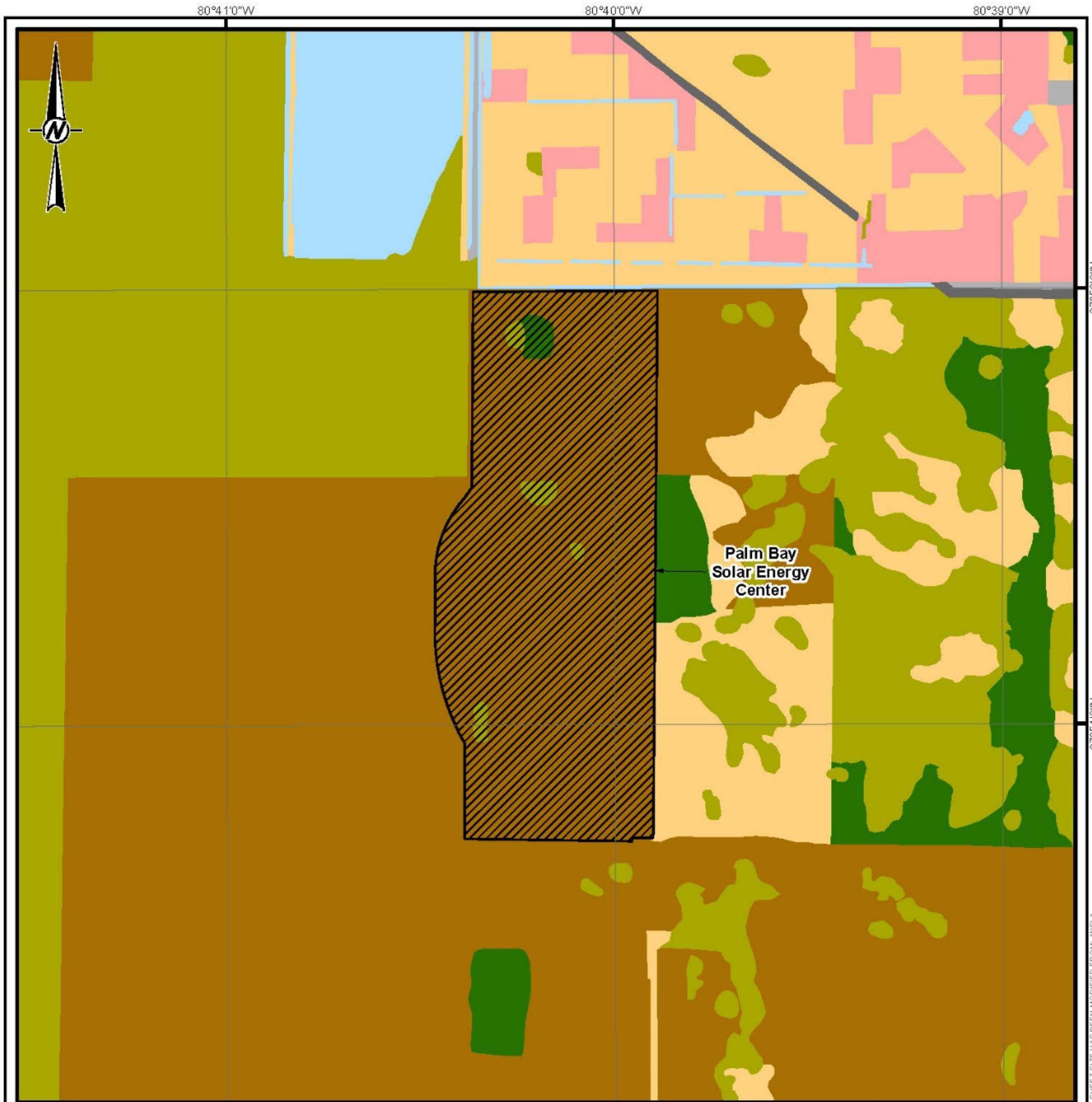
PROJECT
PALM BAY SOLAR ENERGY CENTER

TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV	FIGURE
19119059	A061	0	1



LEGEND

Palm Bay Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Barren land
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
PALM BAY SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A062	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

LEGEND

Palm Bay Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
PALM BAY SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

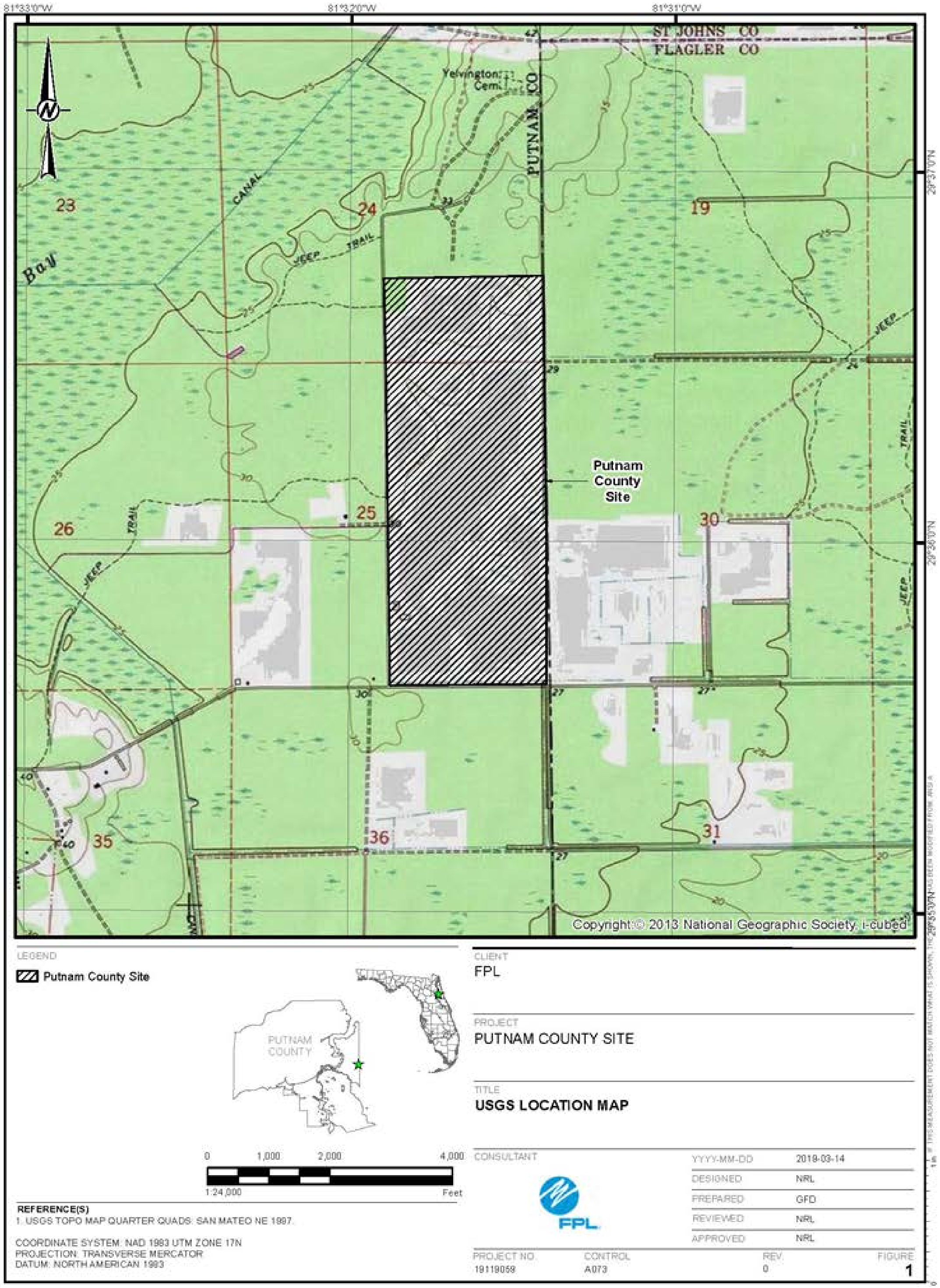
FPL

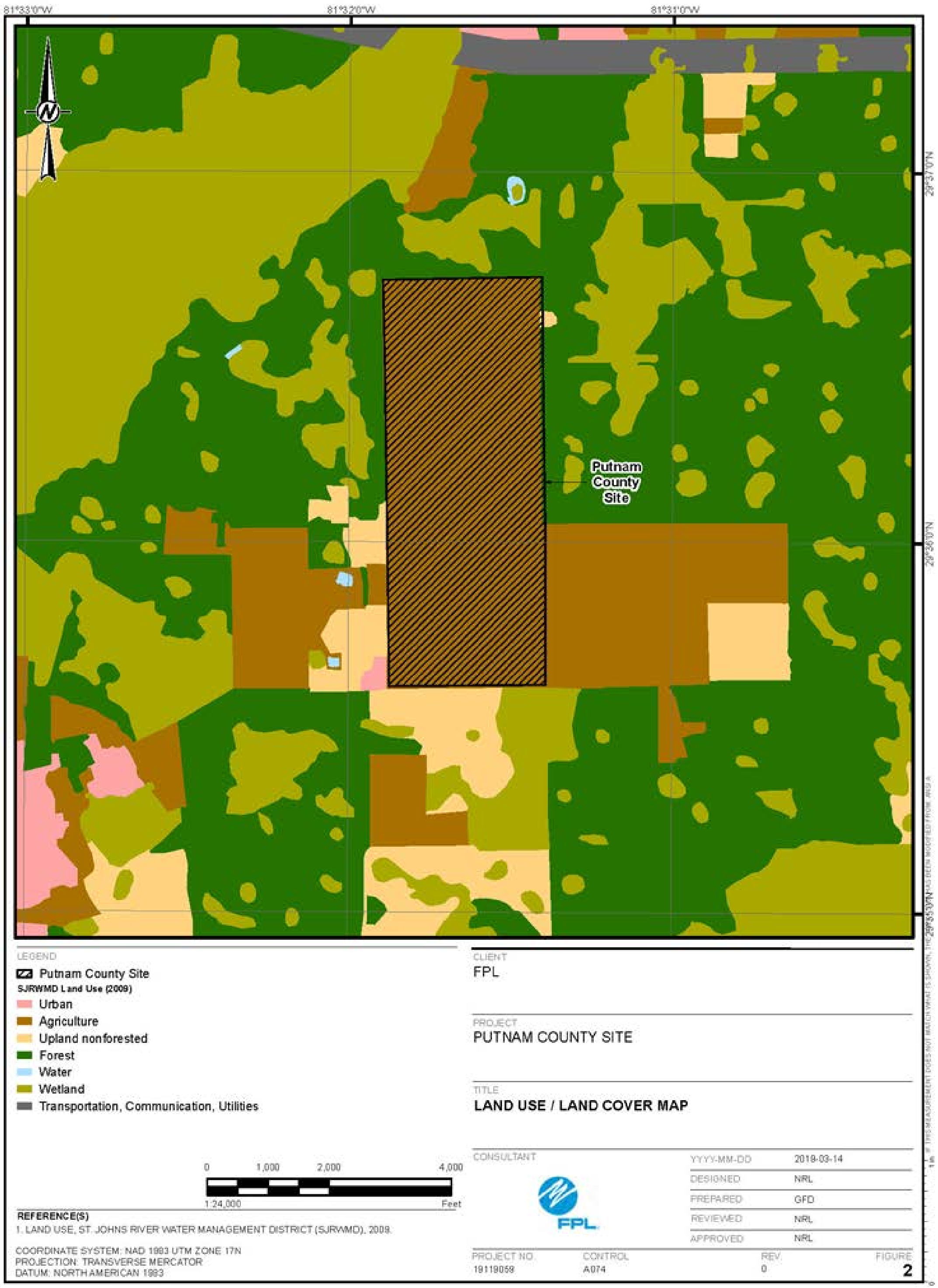
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

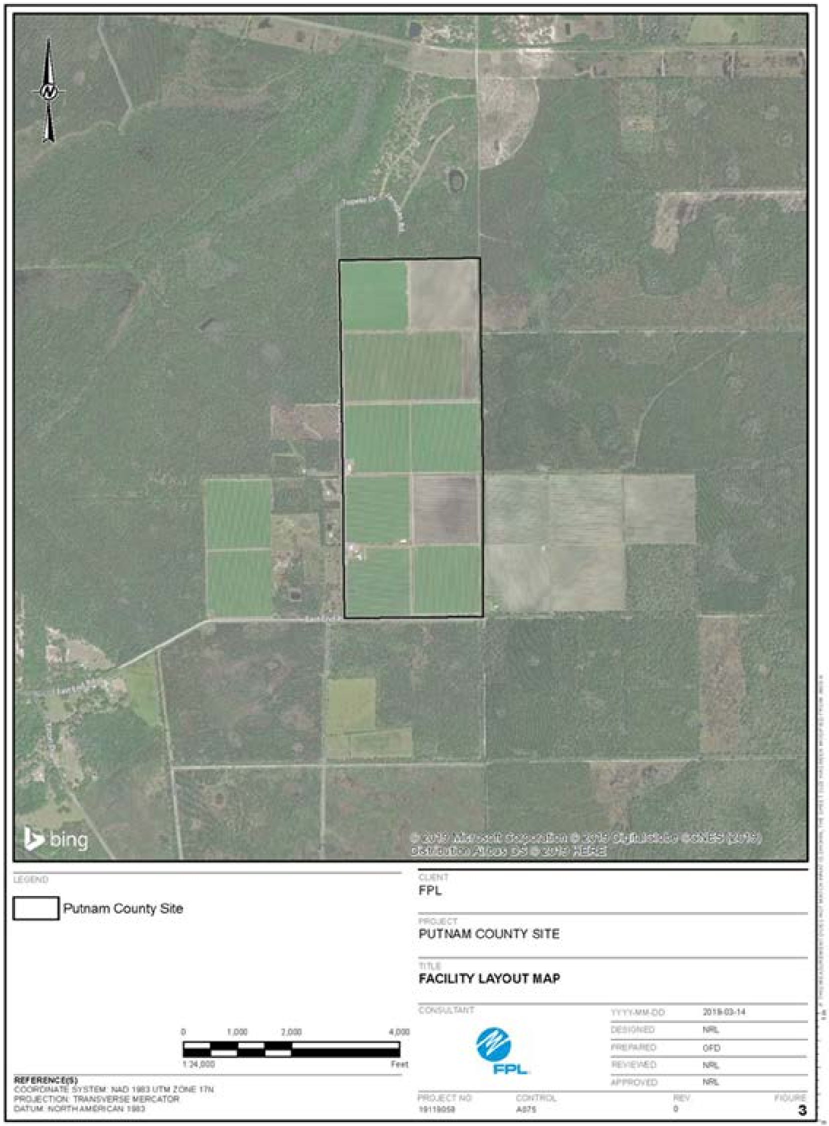
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A063	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 21: Putnam County Site, Putnam County


81°33'0"W
81°32'0"W
81°31'0"W
ST JOHNS CO
FLAGLER CO
PUTNAM CO
Yelvington Cem.
CANAL
JEEP TRAIL
Bay
23
24
19
25
26
30
35
36
31
Putnam
County
Site
29°37'0"N
29°36'0"N
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Putnam County Site
PUTNAM COUNTY
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: SAN MATEO NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
PUTNAM COUNTY SITE
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A073
REV. 0
FIGURE 1


81°33'0"W
81°32'0"W
81°31'0"W
29°37'0"N
29°36'0"N
29°35'0"N
Putnam County Site
LEGEND
Putnam County Site
SJRWMD Land Use (2009)
Urban
Agriculture
Upland nonforested
Forest
Water
Wetland
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
PUTNAM COUNTY SITE
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A074
REV. 0
FIGURE 2

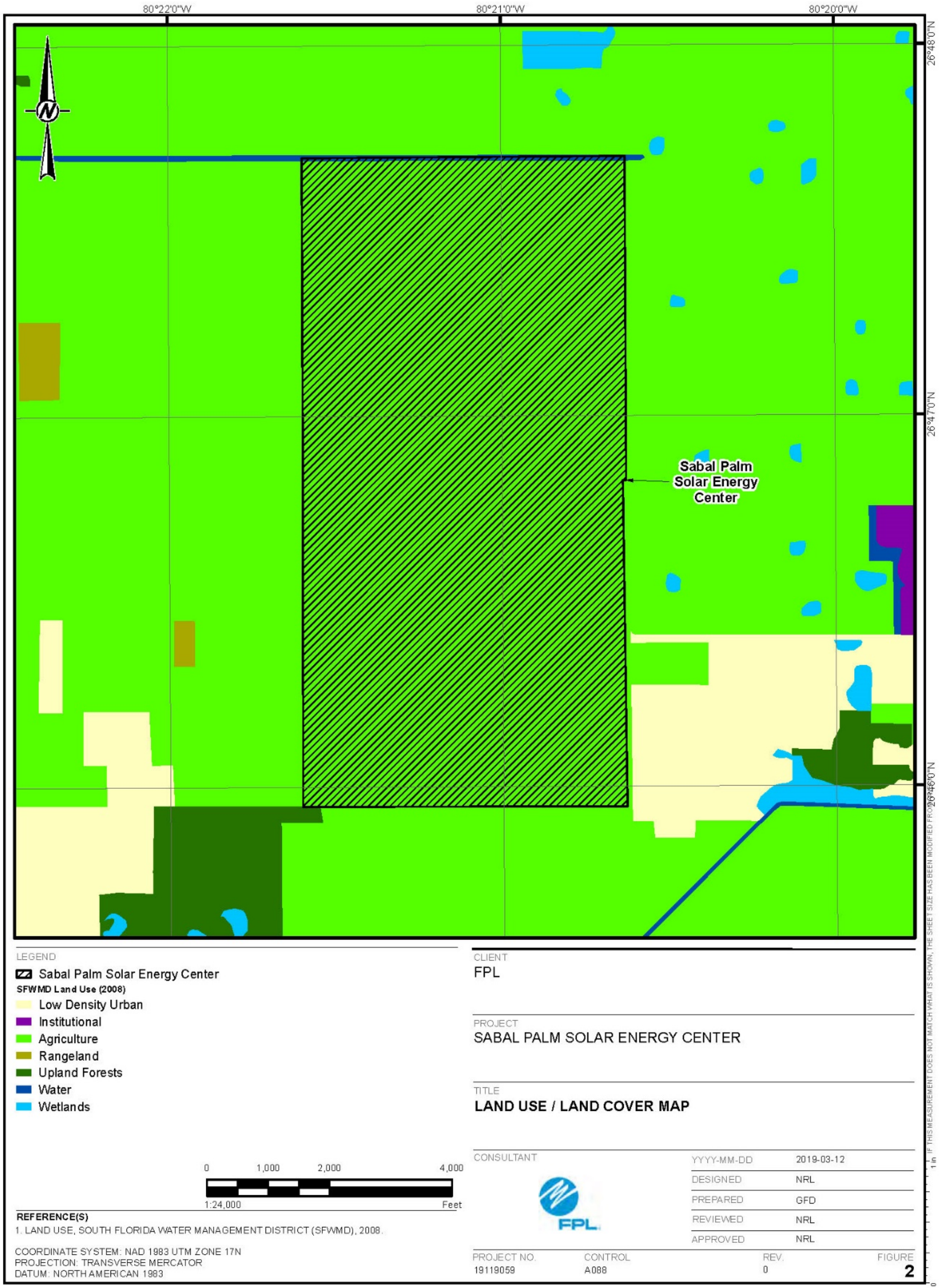


bing
LEGEND
Putnam County Site
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
PUTNAM COUNTY SITE
TITLE
FACILITY LAYOUT MAP
CONSULTANT
YYYY-MM-DD 2019-03-14
DESIGNED NRL
PREPARED OFD
REVIEWED NRL
APPROVED NRL
FPL
PROJECT NO. 19119058
CONTROL A075
REV. 0
FIGURE 3

Environmental and Land Use Information:
Supplemental Information

Preferred Site # 22: Sabal Palm Solar Energy Center, Palm Beach County


80°22'0"W
80°21'0"W
80°20'0"W
26°48'0"N
26°47'0"N
26°46'0"N
Sabal Palm Solar Energy Center
LANDING STRIP
PUMP
PIT
Copyright:© 2013 National Geographic Society, i-cubed
LEGEND
Sabal Palm Solar Energy Center
PALM BEACH COUNTY
0
1,000
2,000
4,000
1:24,000
Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: WEST PALM BEACH 2 SE SW 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
SABAL PALM SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A087
REV. 0
FIGURE 1


80°22'0"W
80°21'0"W
80°20'0"W
26°48'0"N
26°47'0"N
26°46'0"N
N
Sabal Palm Solar Energy Center
LEGEND
Sabal Palm Solar Energy Center
SFWMD Land Use (2008)
Low Density Urban
Institutional
Agriculture
Rangeland
Upland Forests
Water
Wetlands
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
SABAL PALM SOLAR ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A088
REV. 0
FIGURE 2

LEGEND

Sabal Palm Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
SABAL PALM SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

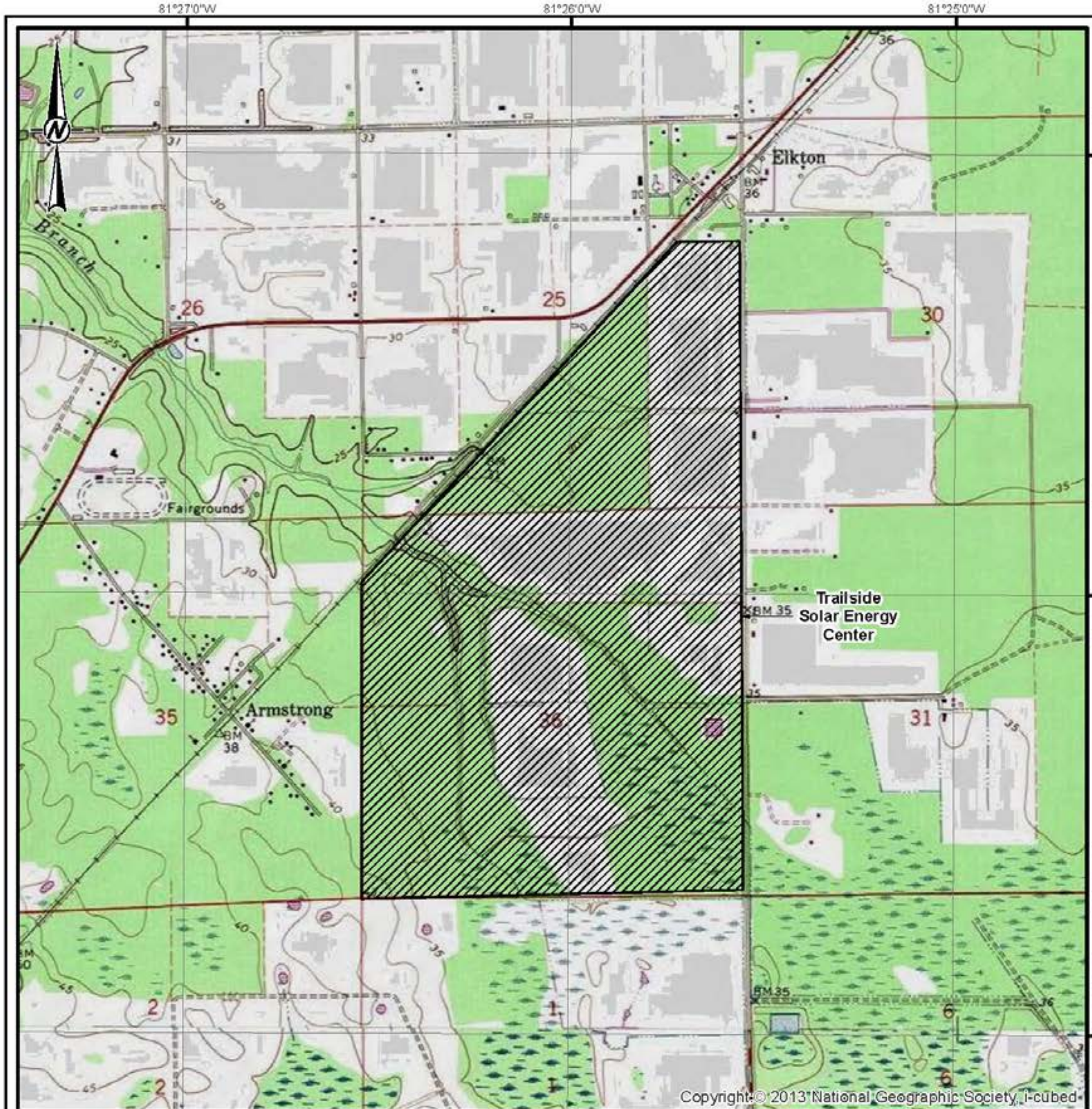
FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A089	0	3

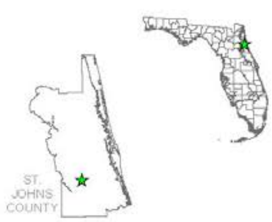
Environmental and Land Use Information: Supplemental Information

Preferred Site # 23: Trailside Solar Energy Center, St. Johns County



LEGEND

Trailside Solar Energy Center



0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: ELKTON SW & ELKTON SE 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
TRAILSIDE SOLAR ENERGY CENTER

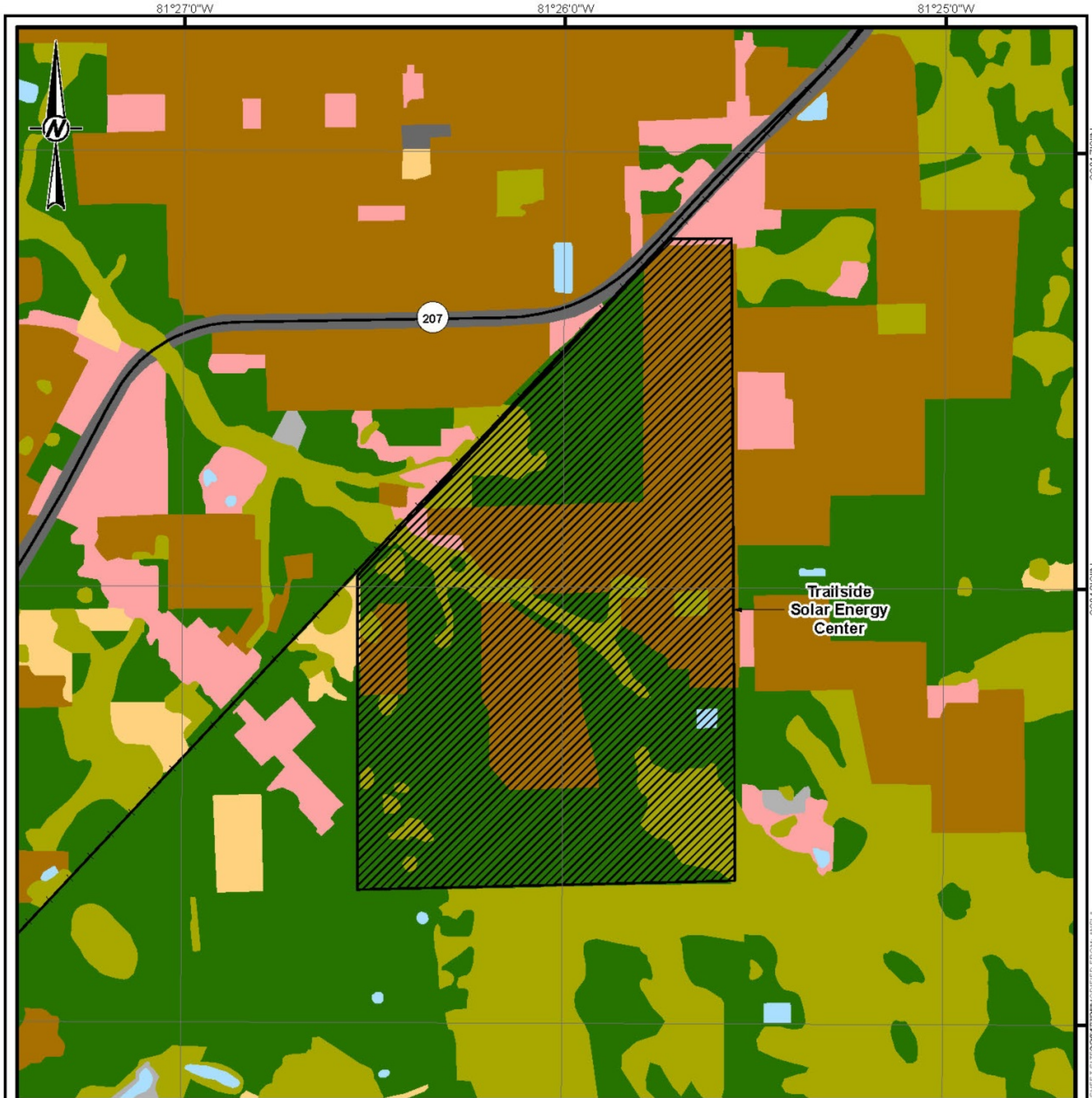
TITLE
USGS LOCATION MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A067	0	1



LEGEND

- Trailside Solar Energy Center

SJRWMD Land Use (2009)

- Urban
- Agriculture
- Upland nonforested
- Forest
- Water
- Wetland
- Barren land
- Transportation, Communication, Utilities

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (SJRWMD), 2009.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
TRAILSIDE SOLAR ENERGY CENTER

TITLE
LAND USE / LAND COVER MAP

CONSULTANT

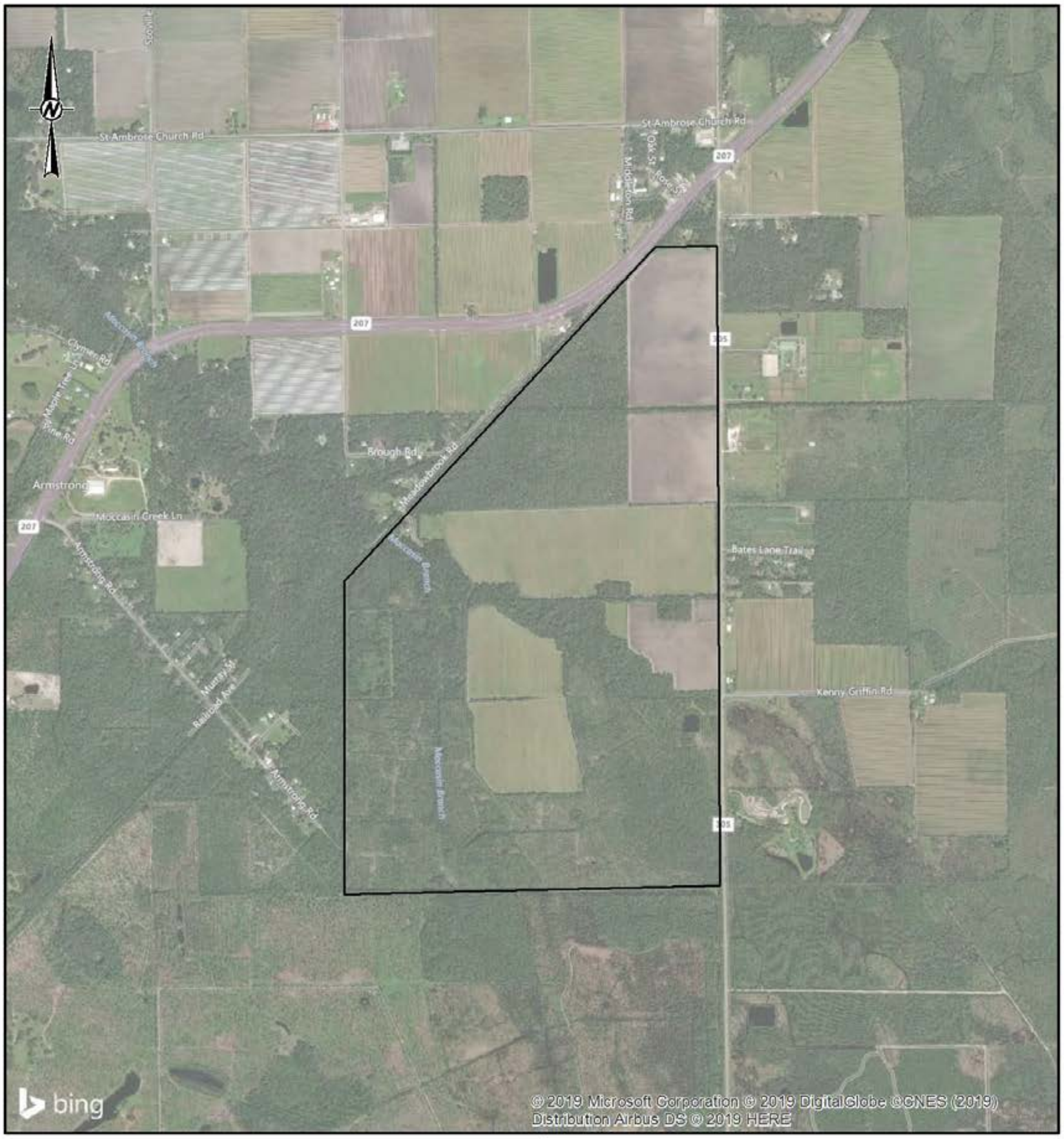
FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A068	0	2

1 in

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Trailside Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
TRAILSIDE SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

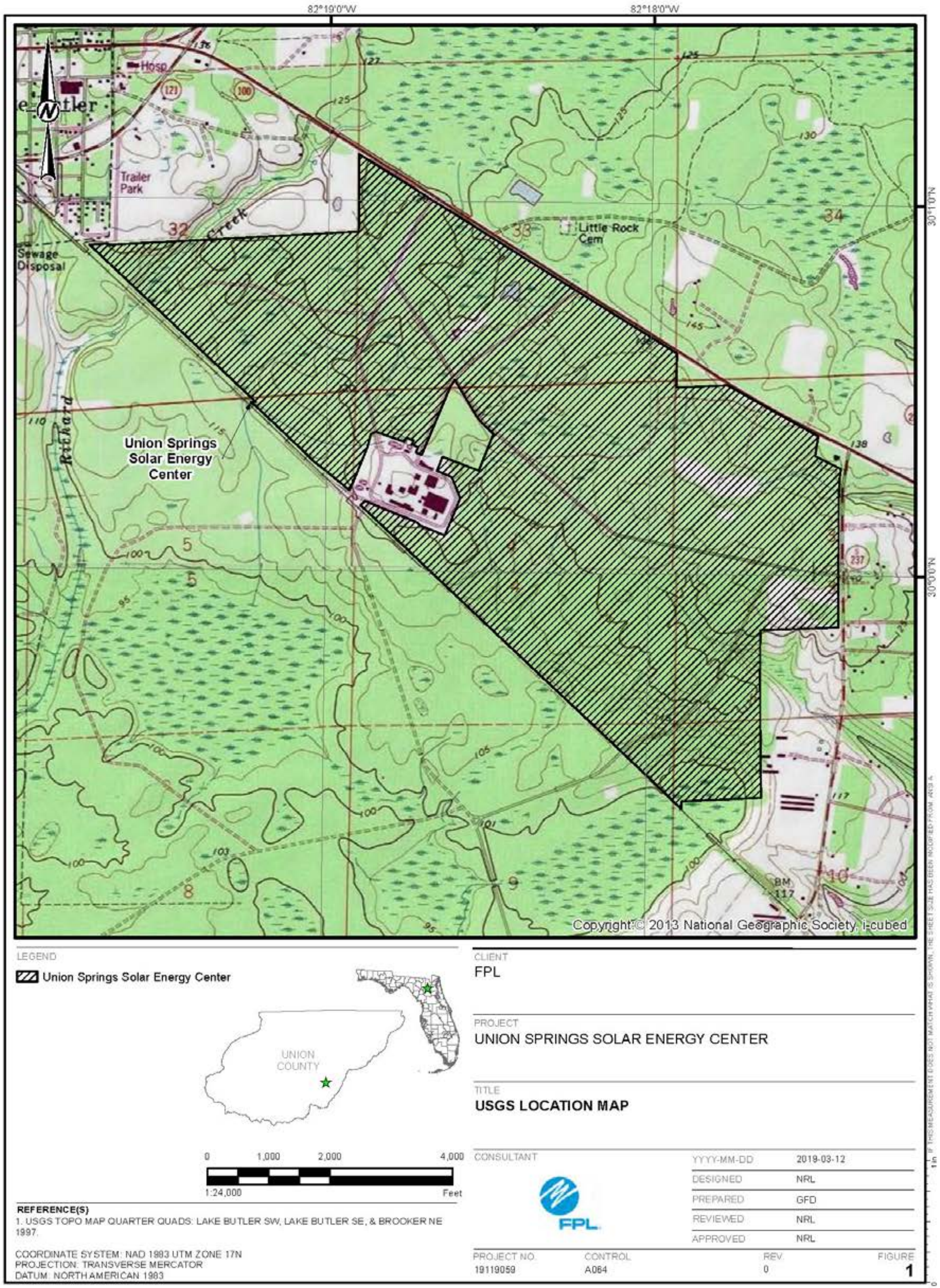
FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A069	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 24: Union Springs Solar Energy Center, Union County



82°19'0"W
82°18'0"W
30°1'0"N
30°0'0"N
Hosp
Trailer Park
Sewage Disposal
Little Rock Cem
Creek
Richard
Union Springs Solar Energy Center
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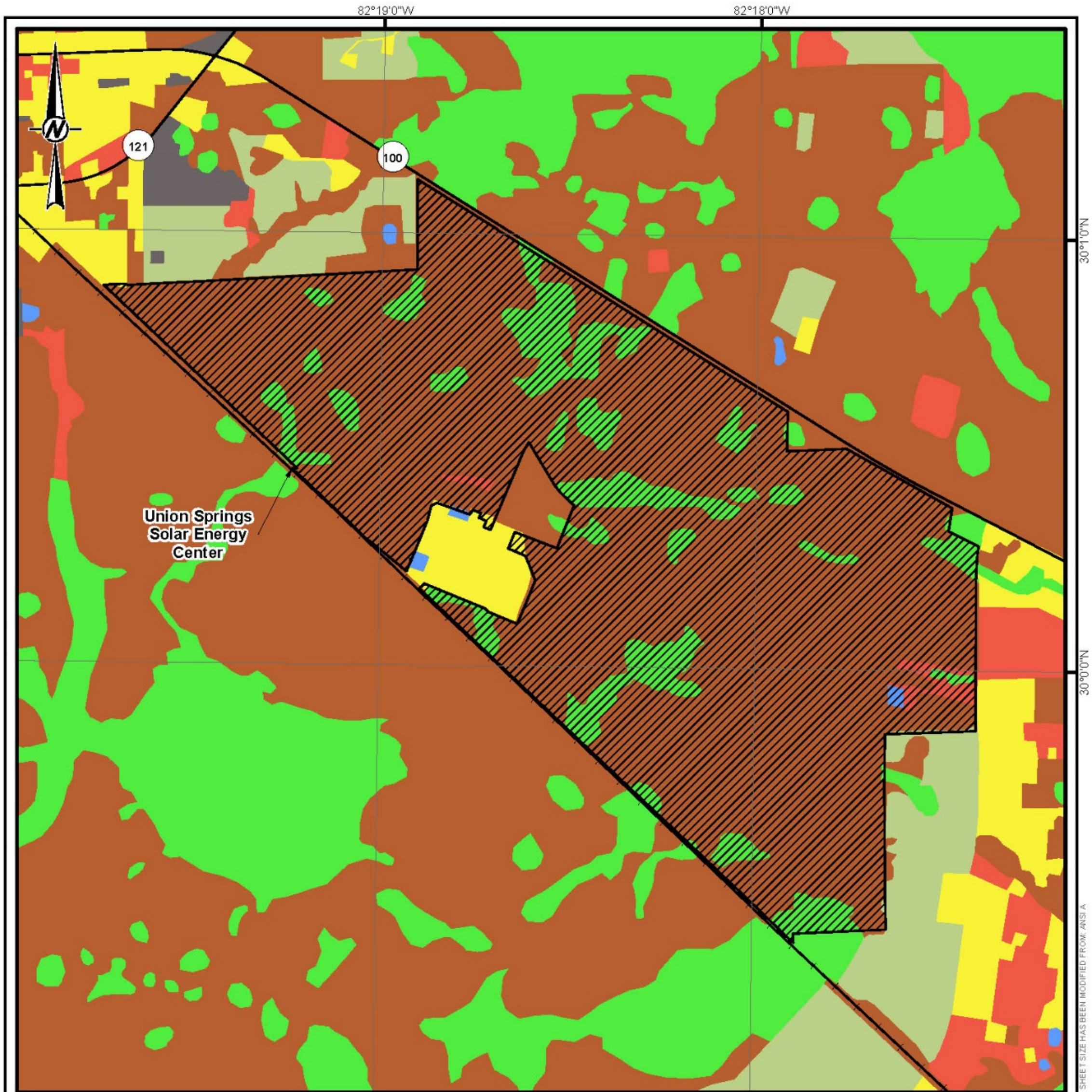
LEGEND
Union Springs Solar Energy Center
UNION COUNTY
0 1,000 2,000 4,000
1:24,000 Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: LAKE BUTLER SW, LAKE BUTLER SE, & BROOKER NE 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
UNION SPRINGS SOLAR ENERGY CENTER
TITLE
USGS LOCATION MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A064
REV 0
FIGURE 1



LEGEND

Union Springs Solar Energy Center

SRWMD Land Use (2011)

- 100 - URBAN AND BUILT-UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. LAND USE, SUWANNEE RIVER WATER MANAGEMENT DISTRICT (SRWMD), 2011.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
UNION SPRINGS SOLAR ENERGY CENTER

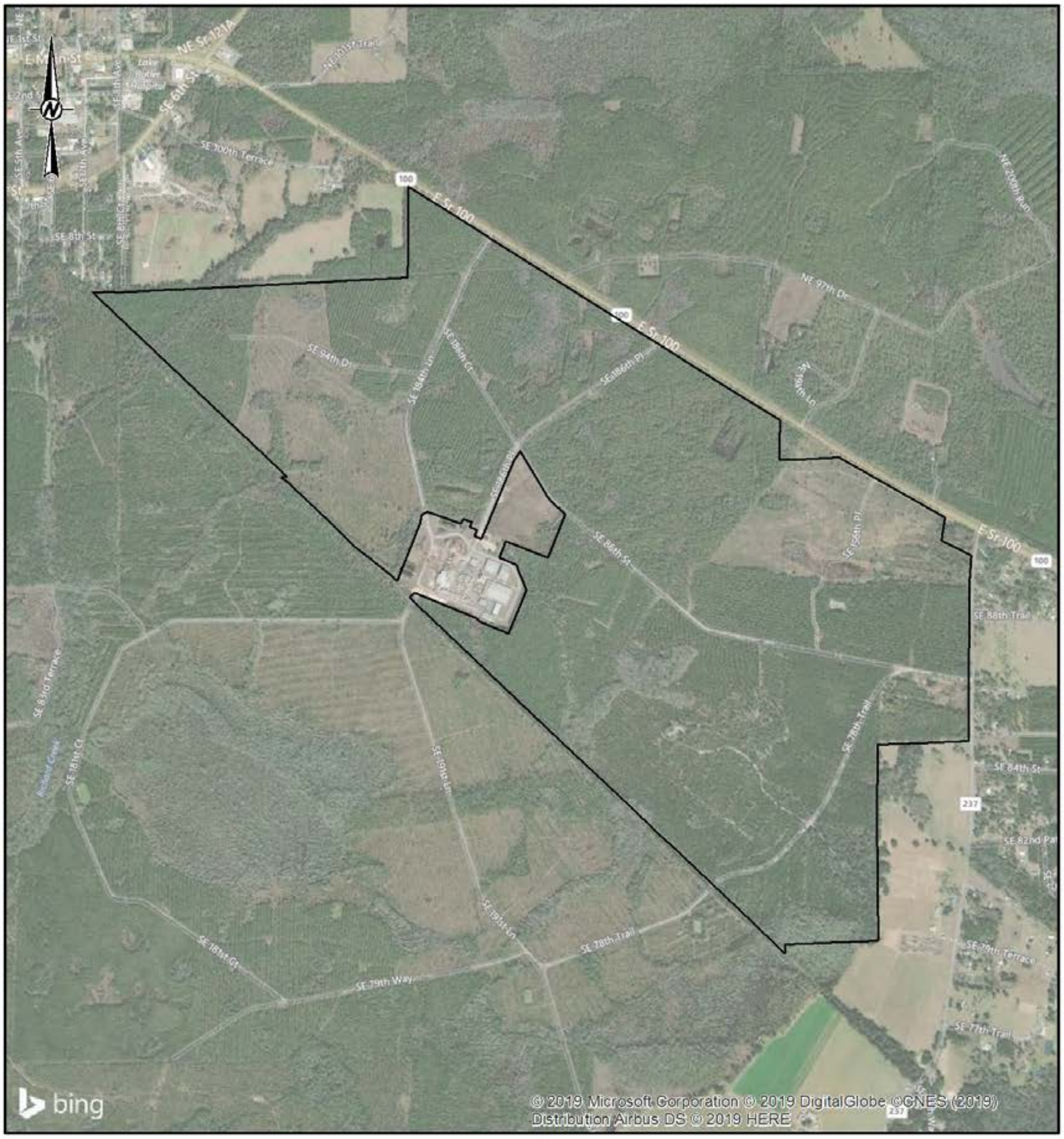
TITLE
LAND USE / LAND COVER MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A065	0	2

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Union Springs Solar Energy Center

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
UNION SPRINGS SOLAR ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

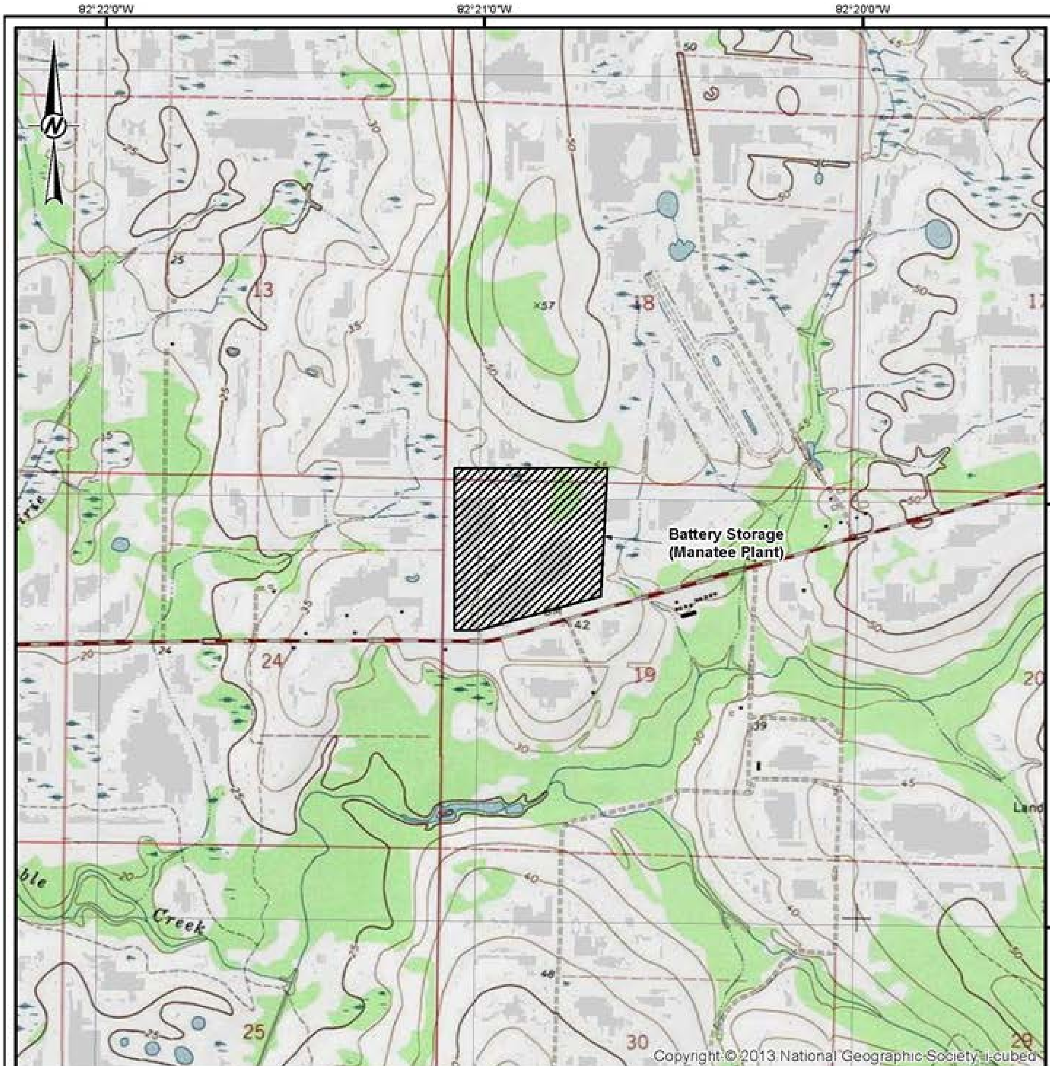
FPL

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A066	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 25: Battery Storage, Manatee County



LEGEND

Battery Storage (Manatee Plant)

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: RYE NW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
BATTERY STORAGE (MANATEE PLANT)

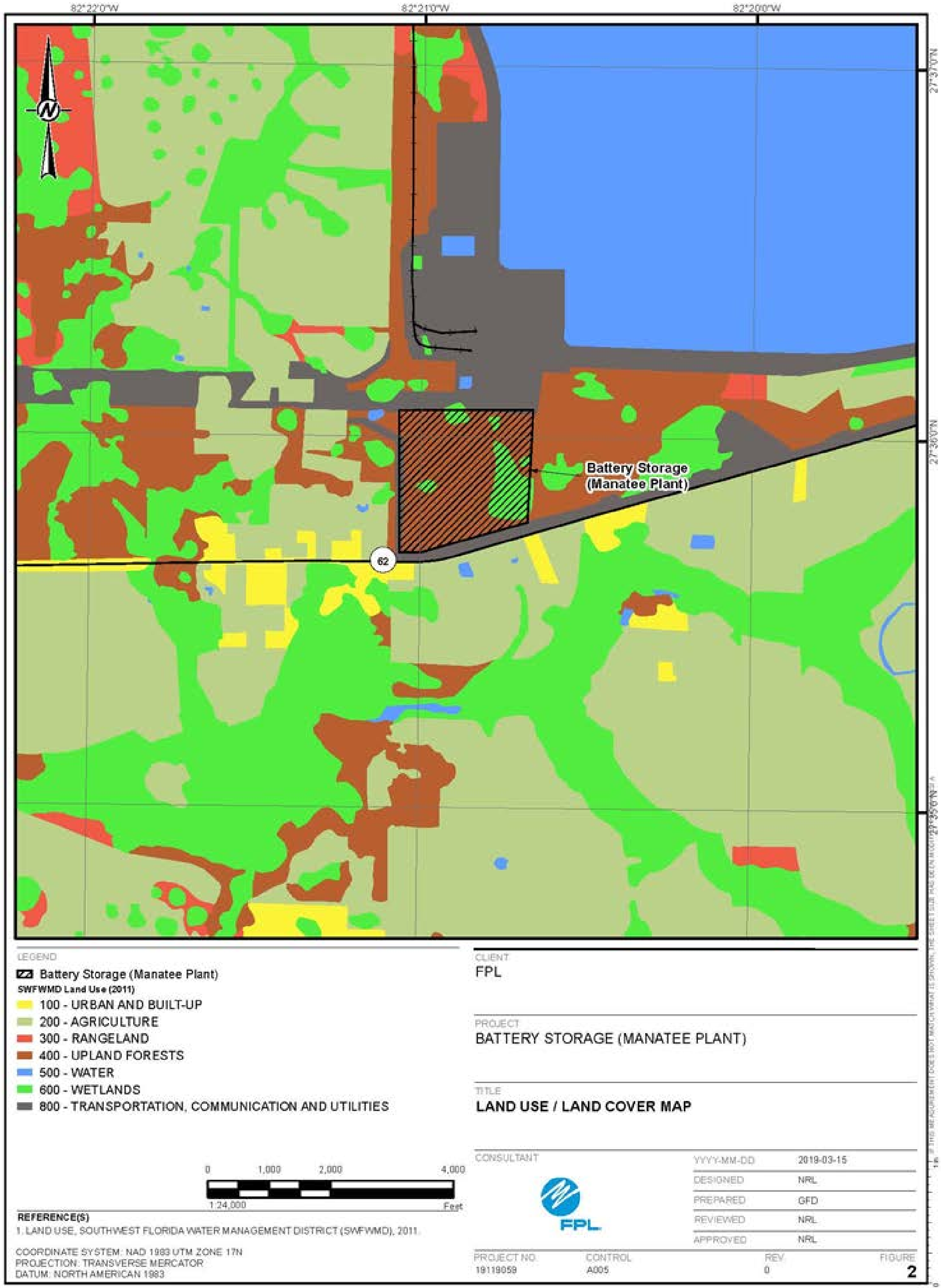
TITLE
USGS LOCATION MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-15
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A004	0	1



82°22'0"W
82°21'0"W
82°20'0"W
27°37'0"N
27°36'0"N
27°35'0"N
Battery Storage
(Manatee Plant)
62
LEGEND
Battery Storage (Manatee Plant)
SWFWMD Land Use (2011)
100 - URBAN AND BUILT-UP
200 - AGRICULTURE
300 - RANGELAND
400 - UPLAND FORESTS
500 - WATER
600 - WETLANDS
800 - TRANSPORTATION, COMMUNICATION AND UTILITIES
0 1,000 2,000 4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD), 2011.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
BATTERY STORAGE (MANATEE PLANT)
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-15
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A005
REV. 0
FIGURE 2

LEGEND

Battery Storage (Manatee Plant)

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
BATTERY STORAGE (MANATEE PLANT)

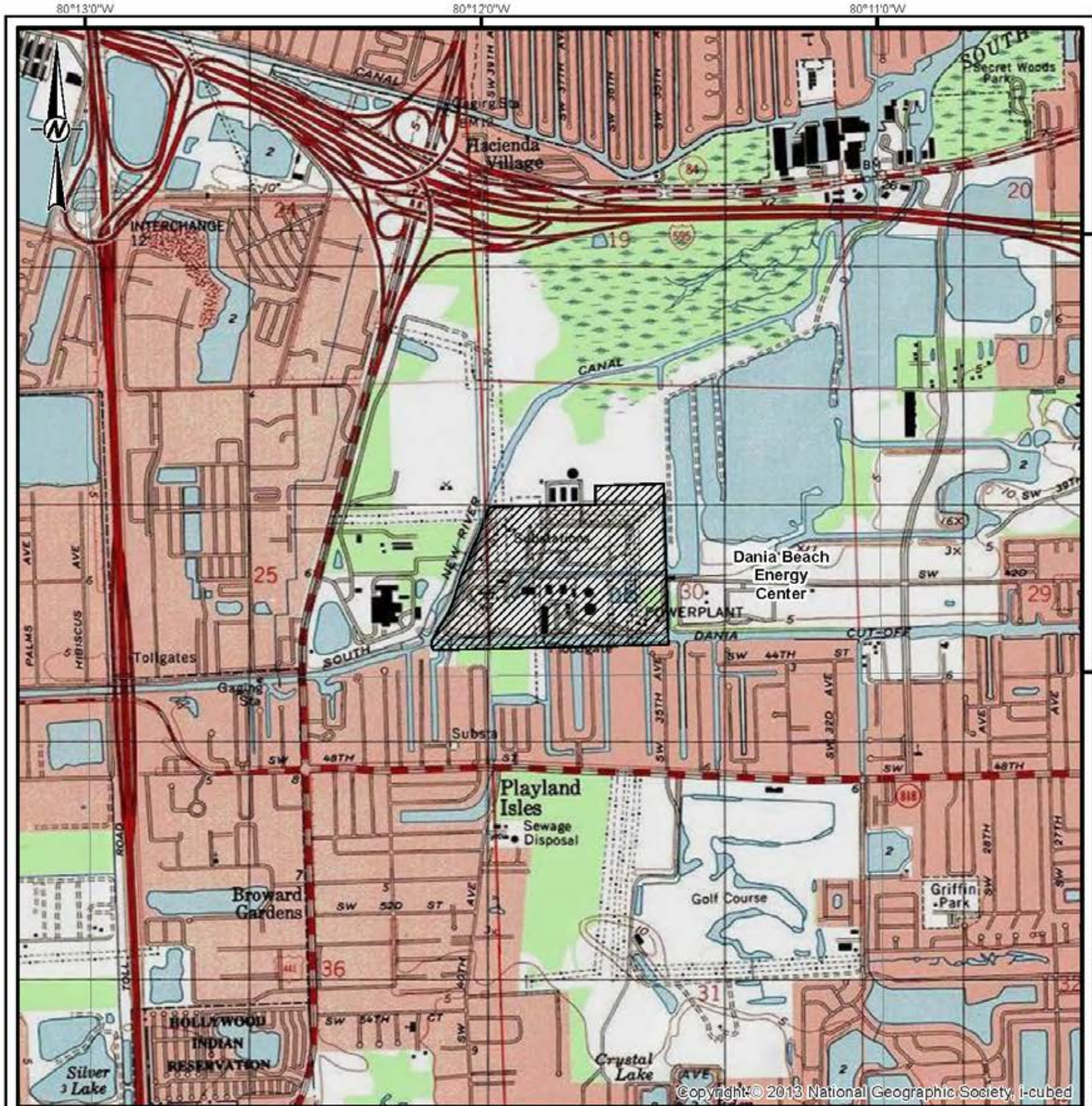
TITLE
FACILITY LAYOUT MAP

CONSULTANT			
FPL		YYYY-MM-DD	2019-03-15
		DESIGNED	NRL
		PREPARED	GFD
		REVIEWED	NRL
		APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A006	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 26: Dania Beach Clean Energy Center Unit 7, Broward County



LEGEND

Dania Beach Energy Center

BROWARD COUNTY

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)

1. USGS TOPO MAP QUARTER QUADS: FORT LAUDERDALE SOUTH NW 1997.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
DANIA BEACH ENERGY CENTER

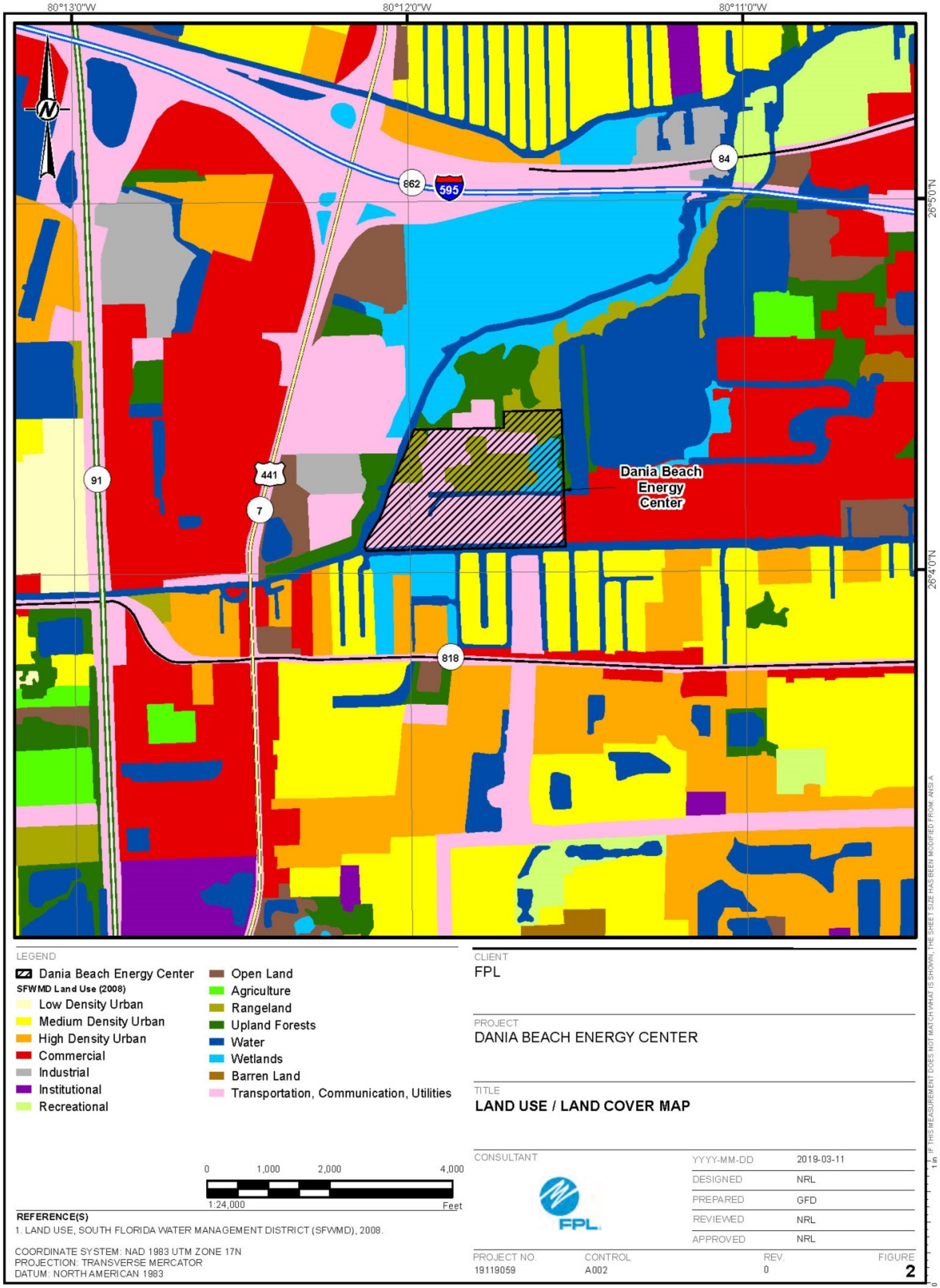
TITLE
USGS LOCATION MAP

CONSULTANT

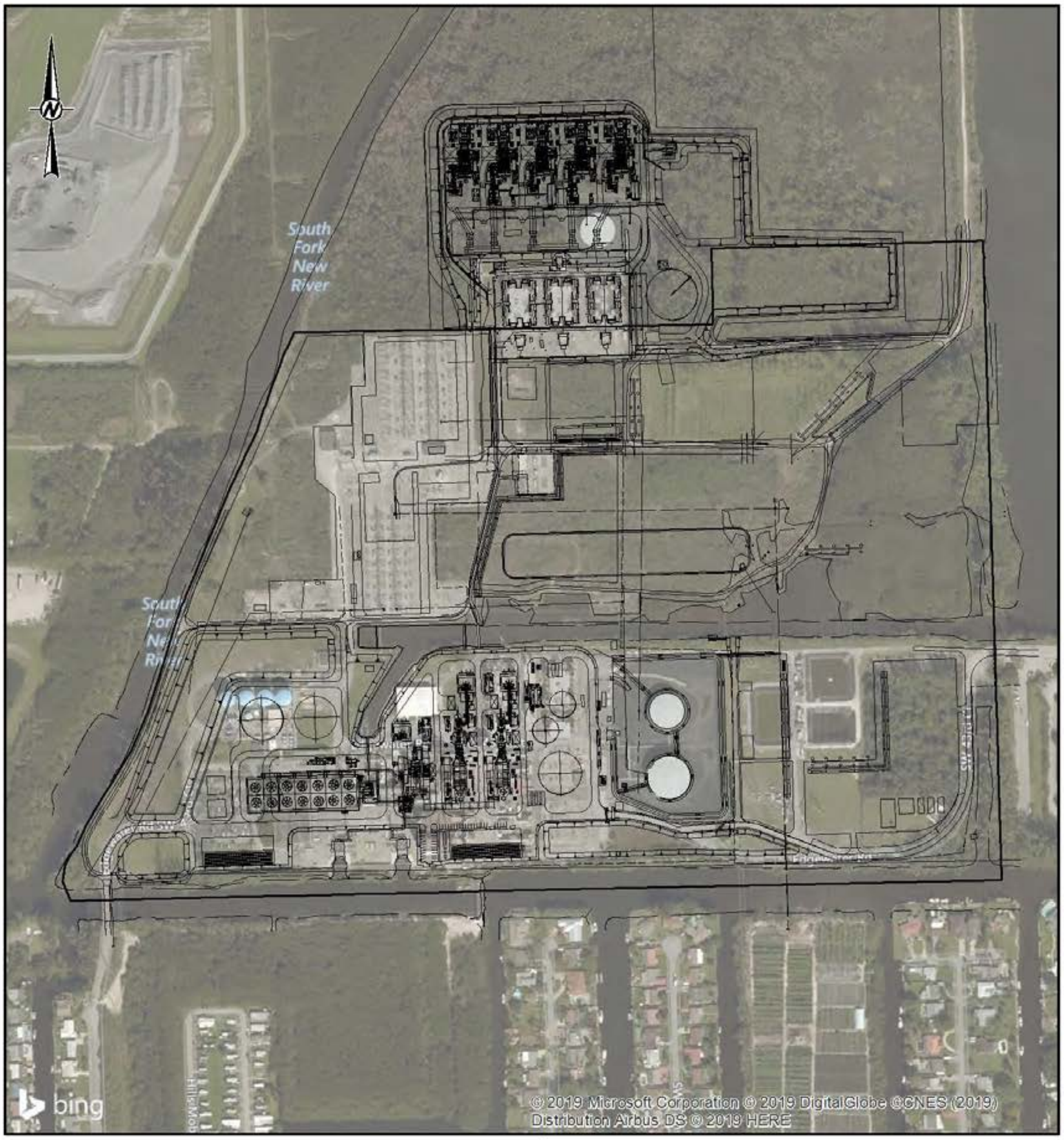
YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

FPL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A001	0	1



80°13'0"W
80°12'0"W
80°11'0"W
26°5'0"N
26°4'0"N
N
862
595
84
91
441
7
818
Dania Beach Energy Center
LEGEND
Dania Beach Energy Center
SFWMD Land Use (2008)
Low Density Urban
Medium Density Urban
High Density Urban
Commercial
Industrial
Institutional
Recreational
Open Land
Agriculture
Rangeland
Upland Forests
Water
Wetlands
Barren Land
Transportation, Communication, Utilities
0 1,000 2,000 4,000
1:24,000
Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
DANIA BEACH ENERGY CENTER
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
FPL
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A002
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Dania Beach Energy Center

0 250 500 1,000

1:6,000 Feet

REFERENCE(S)
LAYOUT TAKEN FROM BLACK & VEATCH SITE-ARRANGEMENT OVERALL SITE PLAN, DRAWING NO. 195190-DS-1001, REV 2, DATED 7/20/2017

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
DANIA BEACH ENERGY CENTER

TITLE
FACILITY LAYOUT MAP

CONSULTANT

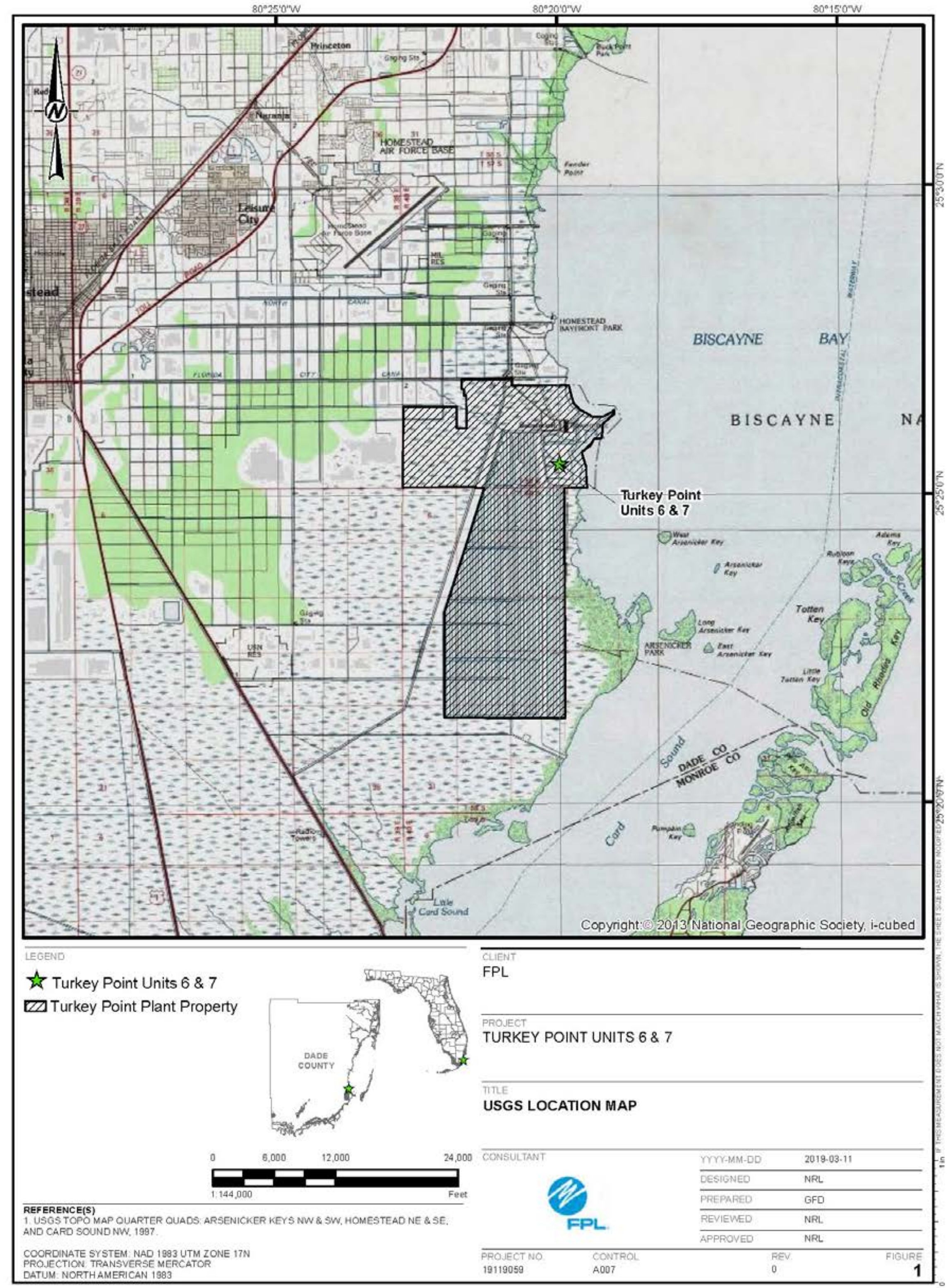
FPL

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

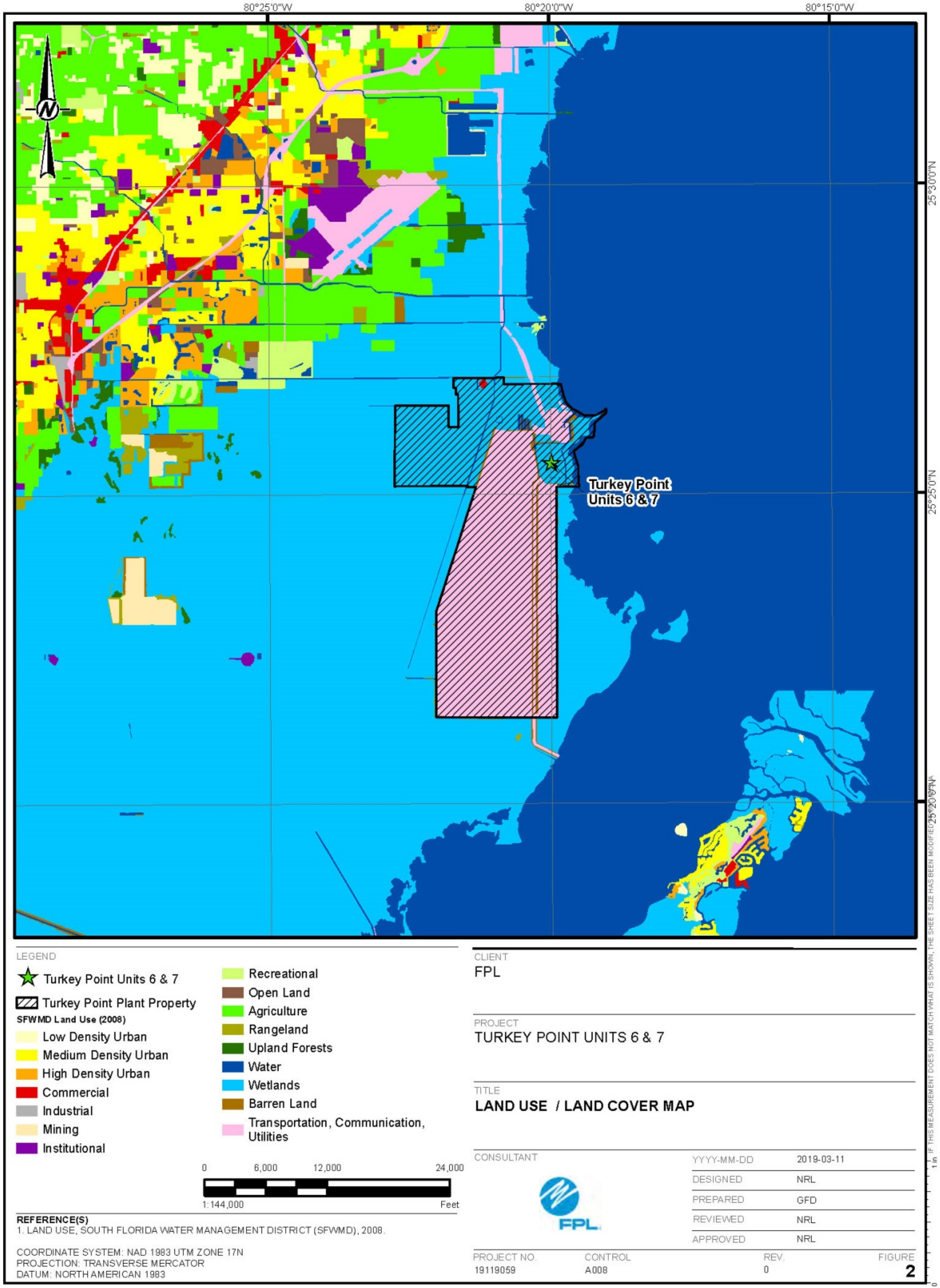
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A003	0	3

Environmental and Land Use Information: Supplemental Information

Preferred Site # 27: Turkey Point Plant, Miami-Dade County



80°25'0"W
80°20'0"W
80°15'0"W
25°30'0"N
25°25'0"N
25°20'0"N
Princeton
HOMESTEAD AIR FORCE BASE
Leisure City
HOMESTEAD BAYFRONT PARK
BISCAYNE BAY
BISCAYNE
Turkey Point Units 6 & 7
Card Sound
DADE CO
MONROE CO
Little Card Sound
Copyright © 2013 National Geographic Society, i-cubed
LEGEND
Turkey Point Units 6 & 7
Turkey Point Plant Property
DADE COUNTY
0 6,000 12,000 24,000
1:144,000 Feet
REFERENCE(S)
1. USGS TOPO MAP QUARTER QUADS: ARSENICKER KEYS NW & SW, HOMESTEAD NE & SE, AND CARD SOUND NW, 1997.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
TURKEY POINT UNITS 6 & 7
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A007
REV. 0
FIGURE 1


80°25'0"W
80°20'0"W
80°15'0"W
25°30'0"N
25°25'0"N
25°20'0"N
N
Turkey Point
Units 6 & 7
LEGEND
Turkey Point Units 6 & 7
Turkey Point Plant Property
SFWMD Land Use (2008)
Low Density Urban
Medium Density Urban
High Density Urban
Commercial
Industrial
Mining
Institutional
Recreational
Open Land
Agriculture
Rangeland
Upland Forests
Water
Wetlands
Barren Land
Transportation, Communication, Utilities
0 6,000 12,000 24,000
1:144,000
Feet
REFERENCE(S)
1. LAND USE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT (SFWMD), 2008.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
TURKEY POINT UNITS 6 & 7
TITLE
LAND USE / LAND COVER MAP
CONSULTANT
YYYY-MM-DD 2019-03-11
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
FPL
PROJECT NO. 19119059
CONTROL A008
REV. 0
FIGURE 2
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

LEGEND

Turkey Point Plant Property

Turkey Point Existing Power Plants

0 1,000 2,000 4,000

1:24,000 Feet

REFERENCE(S)
FACILITY FEATURES, EXISTING TURKEY POINT PLANT AREA, FPL / GOLDER ASSOCIATES INC., 2009-2018

CLIENT
FPL

PROJECT
TURKEY POINT UNITS 6 & 7

TITLE
FACILITY LAYOUT MAP

CONSULTANT

FPL

YYYY-MM-DD	2019-03-11
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

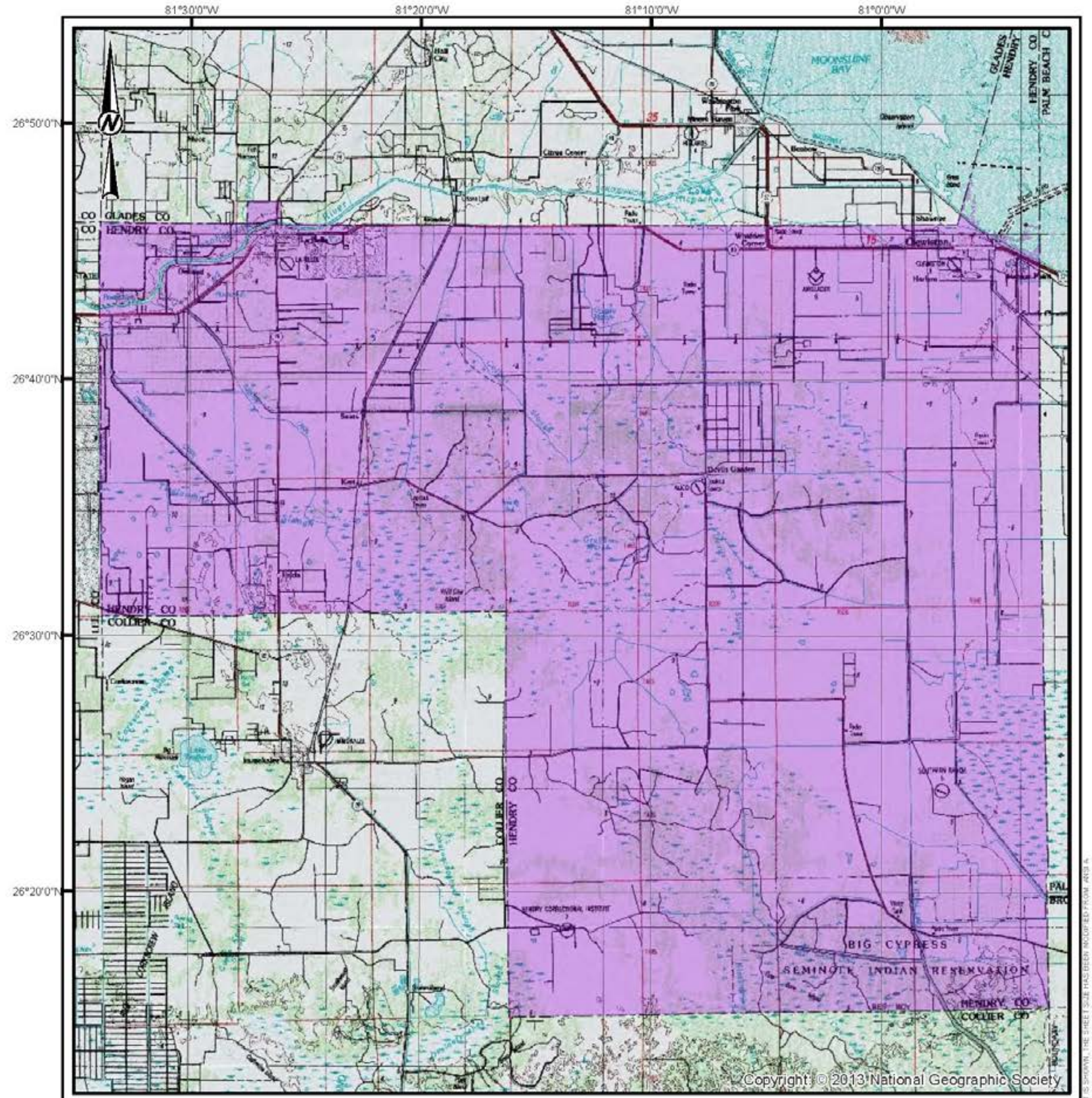
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A009	0	3

1 in 0 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information:

Supplemental Information

Potential Site # 1: Hendry County



LEGEND

Hendry County

0 16,000 32,000 64,000

1:384,000 Feet

REFERENCE(S)

1. HENDRY COUNTY, FPL, 2011.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
HENDRY COUNTY

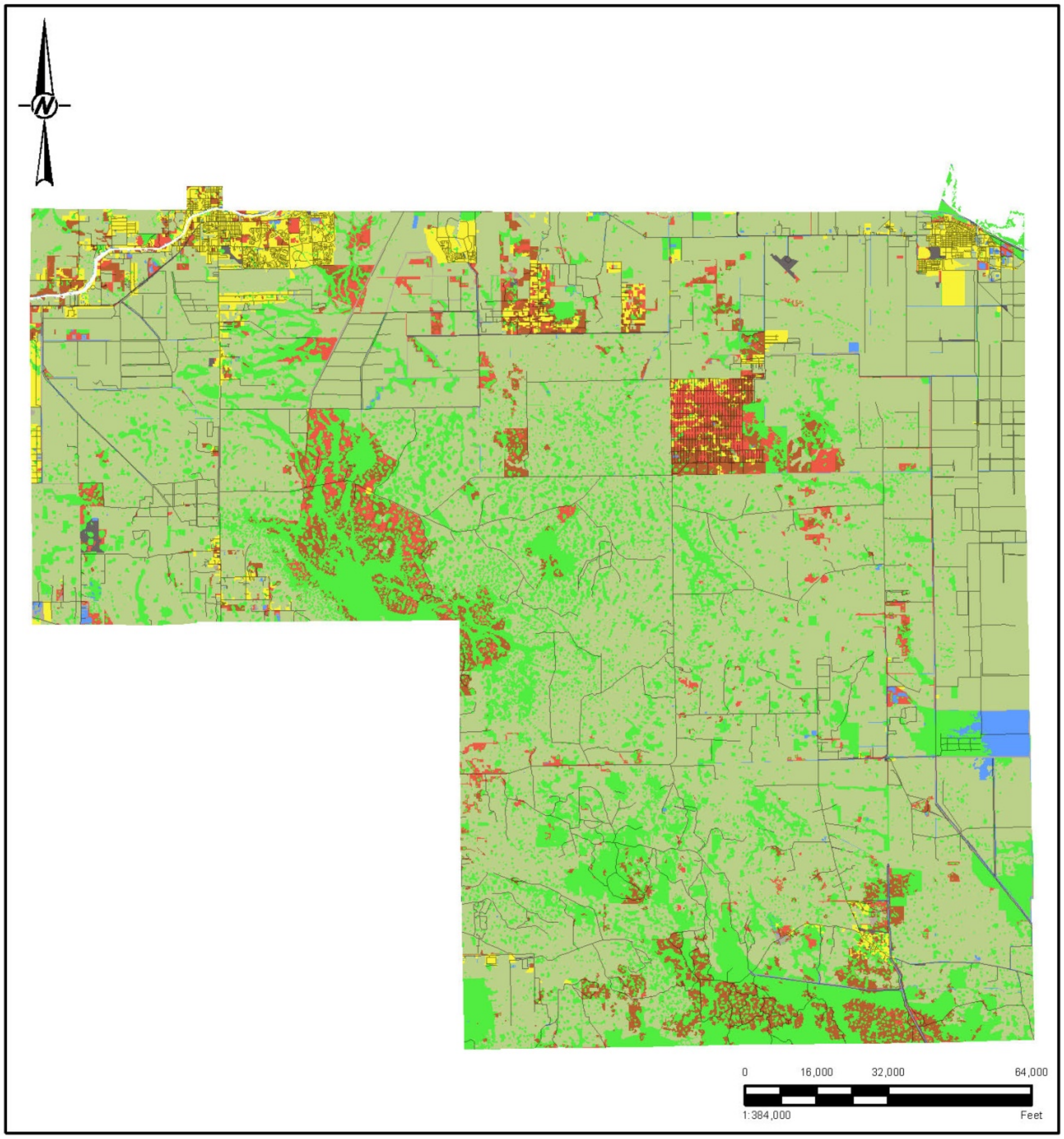
TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A079	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A



LEGEND

Roads

100 - URBAN AND BUILT-UP

200 - AGRICULTURE; 200

300 - RANGELAND; 300

400 - UPLAND FORESTS; 400

500 - WATER; 500

600 - WETLANDS; 600

700 - BARREN LAND; 700

800 - TRANSPORTATION, COMMUNICATION AND UTILITIES; 800

REFERENCE(S)

1. HENDRY COUNTY, FPL, 2011.
2. LAND USE, SFWMD FLUCFCS, 2008.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
HENDRY COUNTY

TITLE
LAND USE / LAND COVER

CONSULTANT

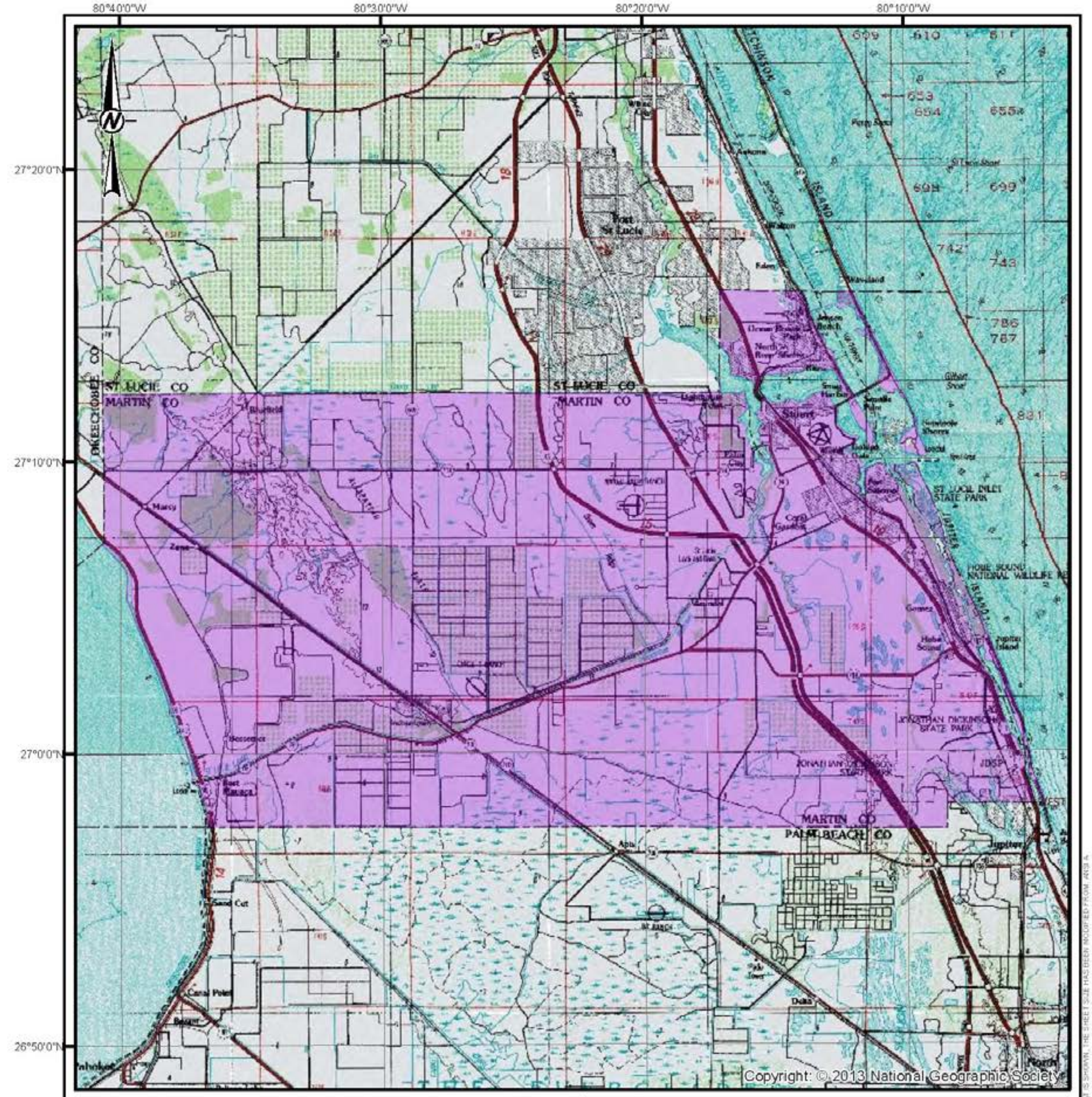
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A080	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

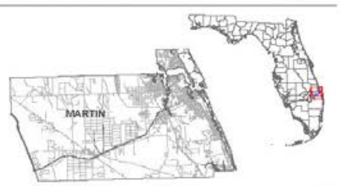
Environmental and Land Use Information:
Supplemental Information

Potential Site # 2: Martin County



LEGEND

Martin County



0 14,000 28,000 56,000

1:336,000 Feet

REFERENCE(S)
1. MARTIN COUNTY, FPL, 2011.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

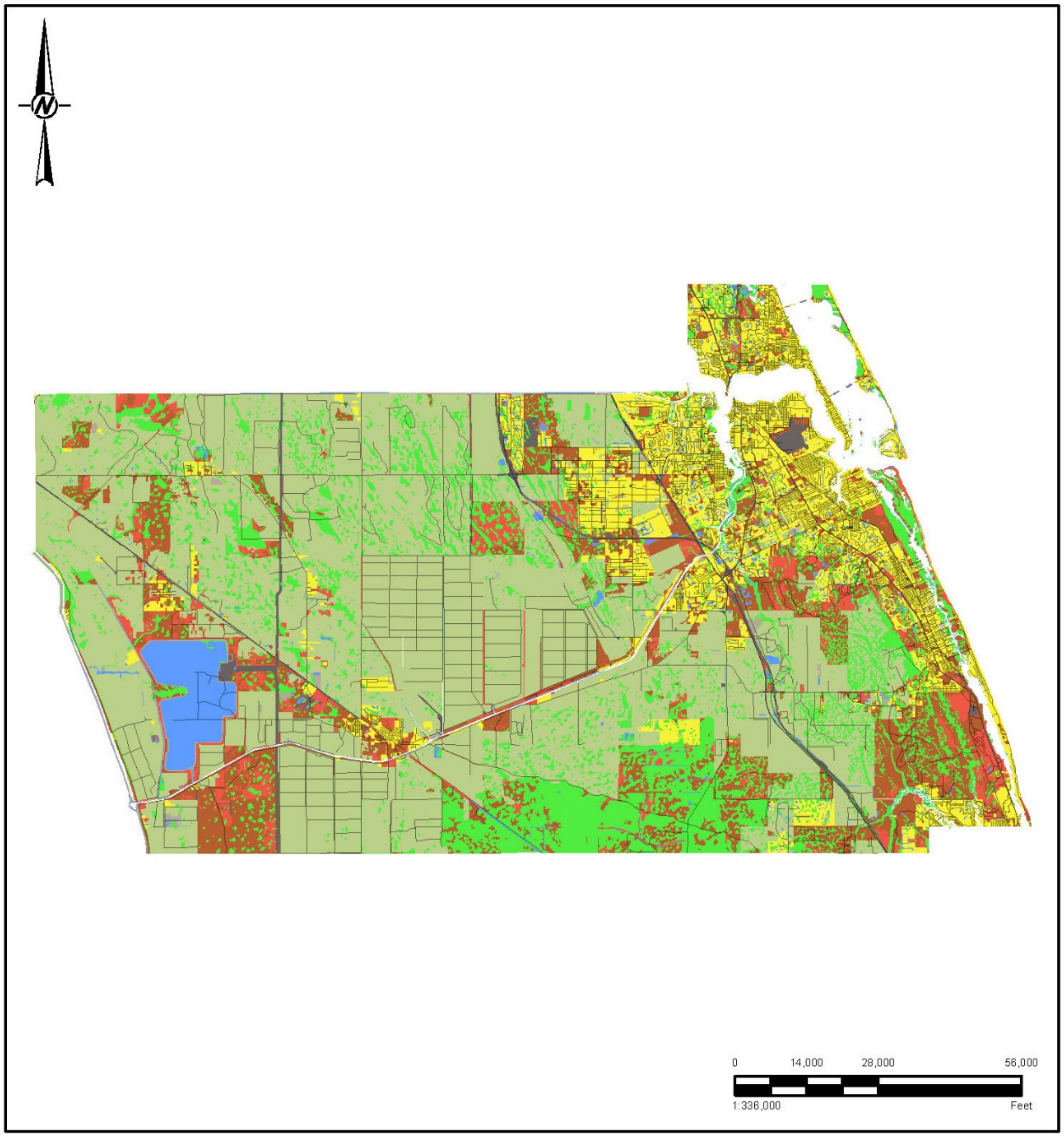
PROJECT
MARTIN COUNTY

TITLE
USGS LOCATION MAP

CONSULTANT

YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A081	0	1



LEGEND

- Roads
- 100 - URBAN AND BUILT-UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 700 - BARREN LAND
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

REFERENCE(S)
1. MARTIN COUNTY, FPL, 2011.
2. LAND USE, SFWMD, 2008.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
MARTIN COUNTY

TITLE
LAND USE / LAND COVER

CONSULTANT

FPL

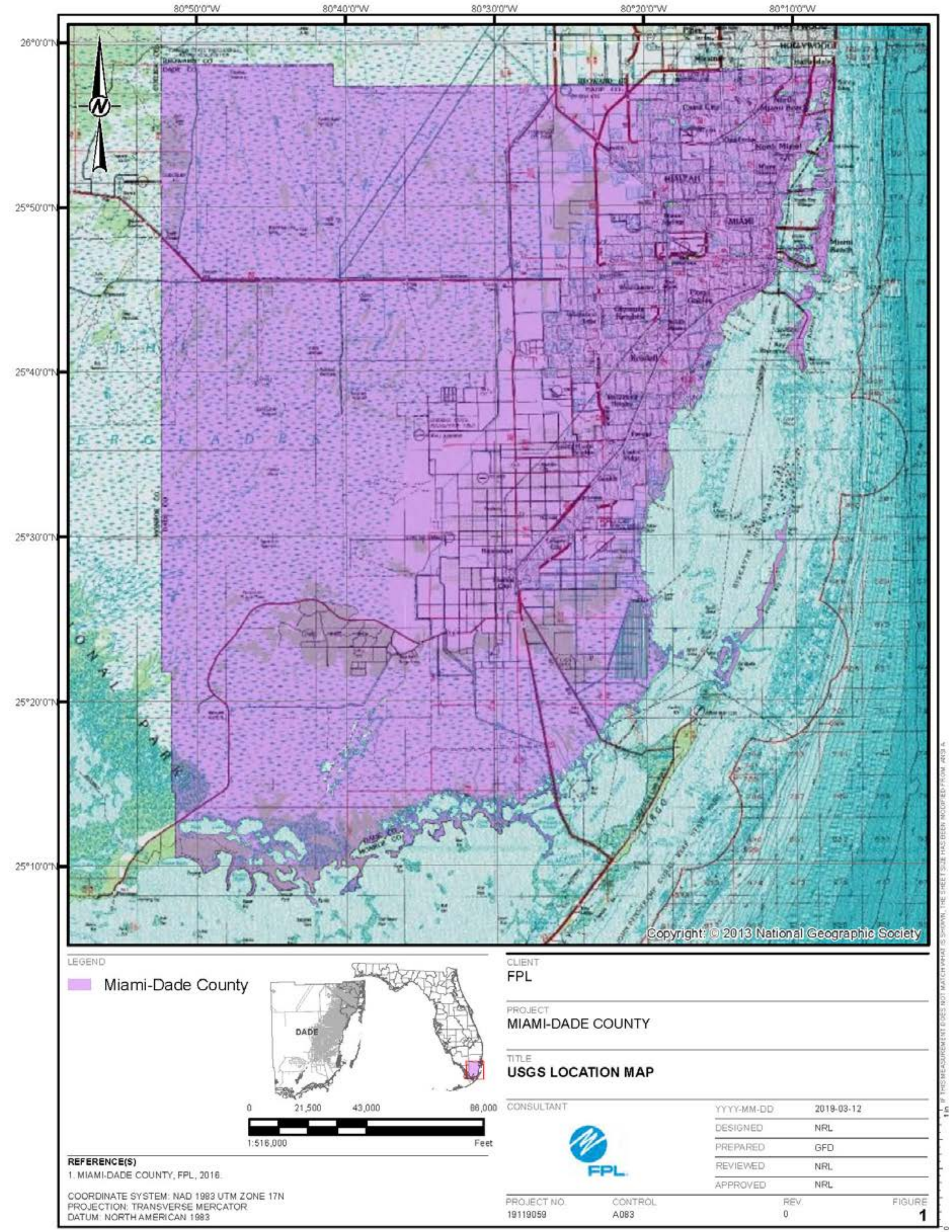
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

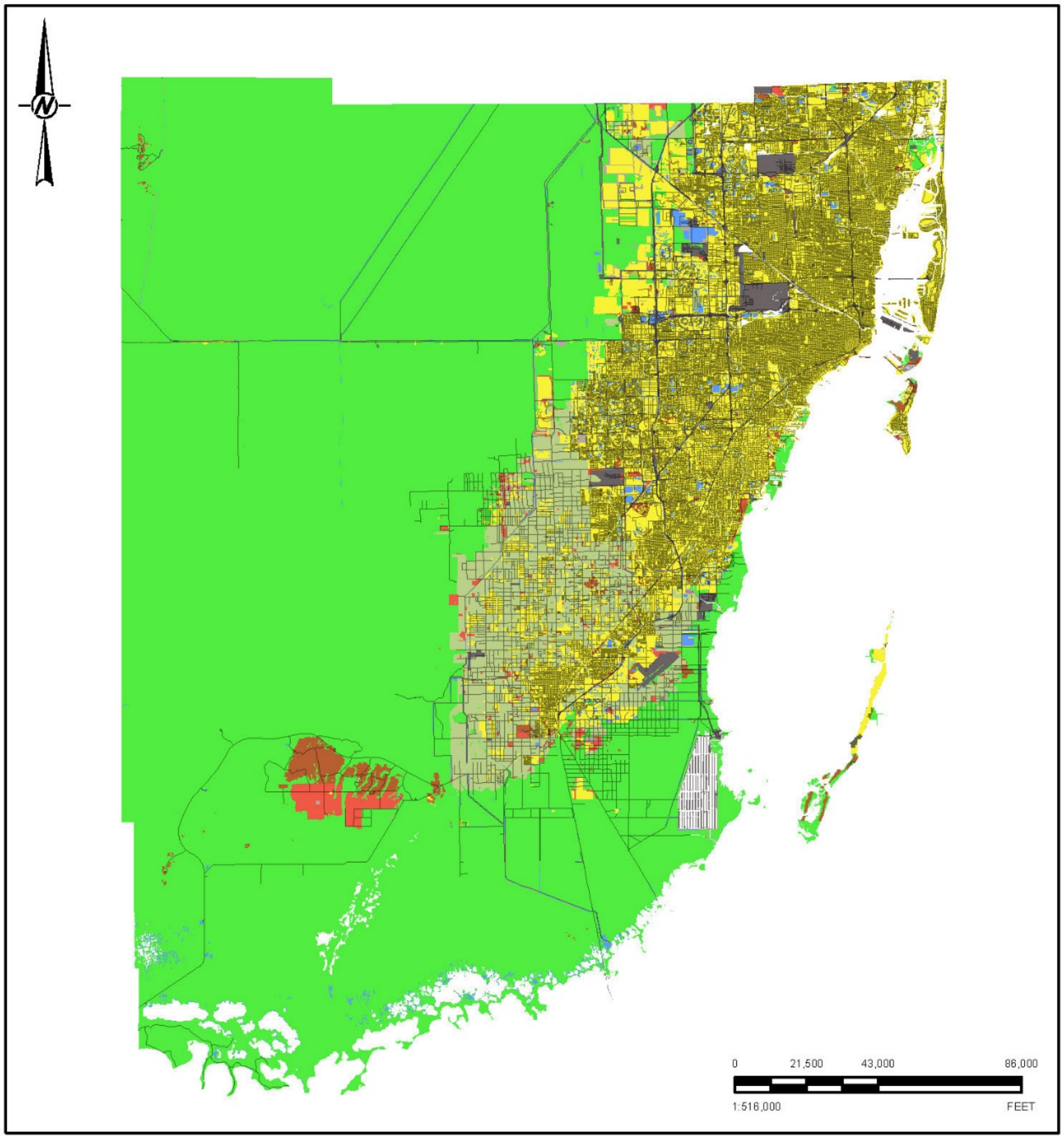
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A082	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information: Supplemental Information

Potential Site # 3: Miami-Dade County


80°50'0"W
80°40'0"W
80°30'0"W
80°20'0"W
80°10'0"W
26°0'0"N
25°50'0"N
25°40'0"N
25°30'0"N
25°20'0"N
25°10'0"N
Copyright: © 2013 National Geographic Society
LEGEND
Miami-Dade County
DADE
0
21,500
43,000
86,000
1:516,000
Feet
REFERENCE(S)
1. MIAMI-DADE COUNTY, FPL, 2016.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
MIAMI-DADE COUNTY
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A083
REV. 0
FIGURE 1



LEGEND

- Roads
- 100 - URBAN AND BUILT-UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 700 - BARREN LAND
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

REFERENCE(S)
1. MIAMI-DADE COUNTY, FPL, 2016.
2. LAND USE, SFWMD, 2008.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
MIAMI-DADE COUNTY

TITLE
LAND USE / LAND COVER

CONSULTANT

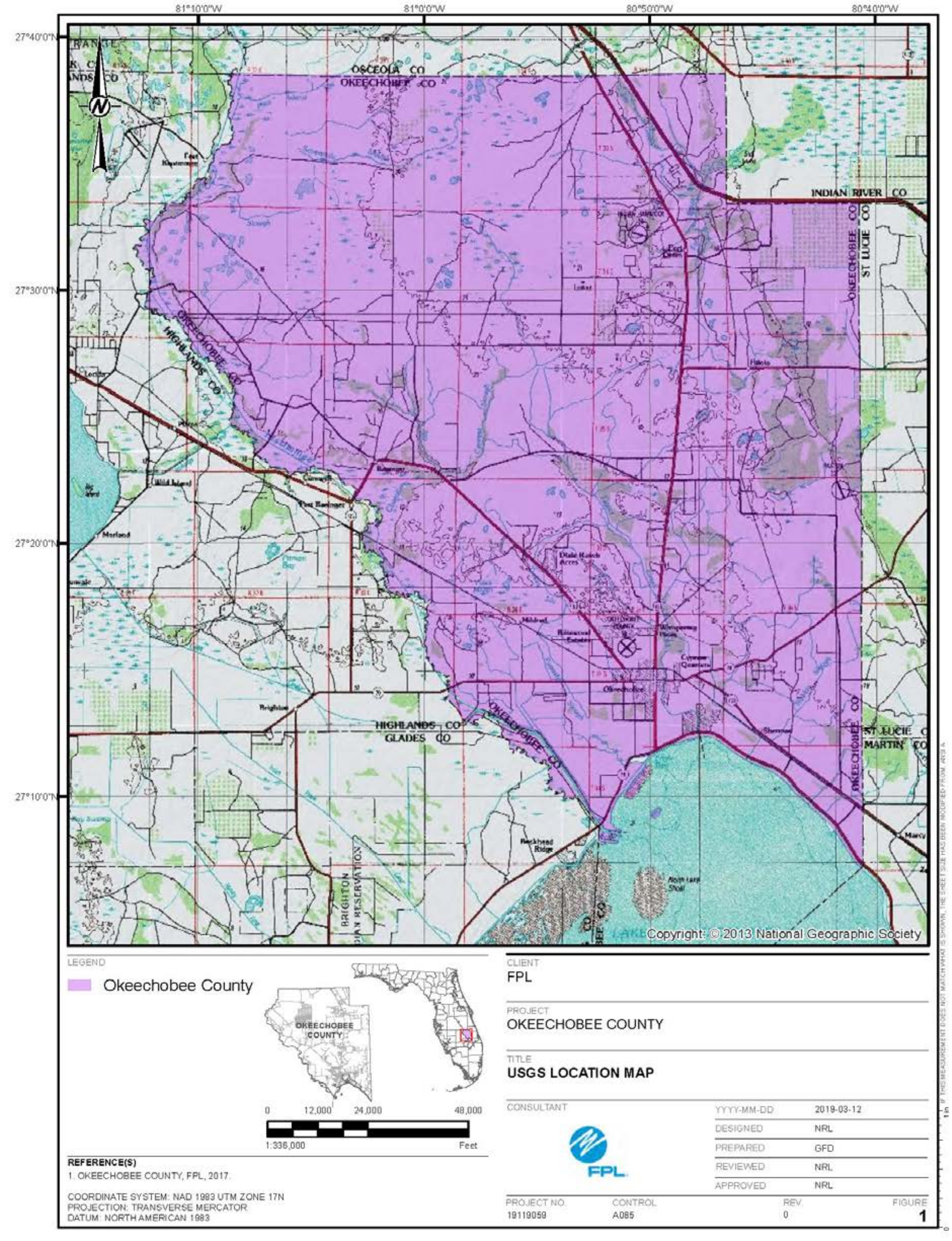
YYYY-MM-DD	2019-03-12
DESIGNED	NRL
PREPARED	GFD
REVIEWED	NRL
APPROVED	NRL

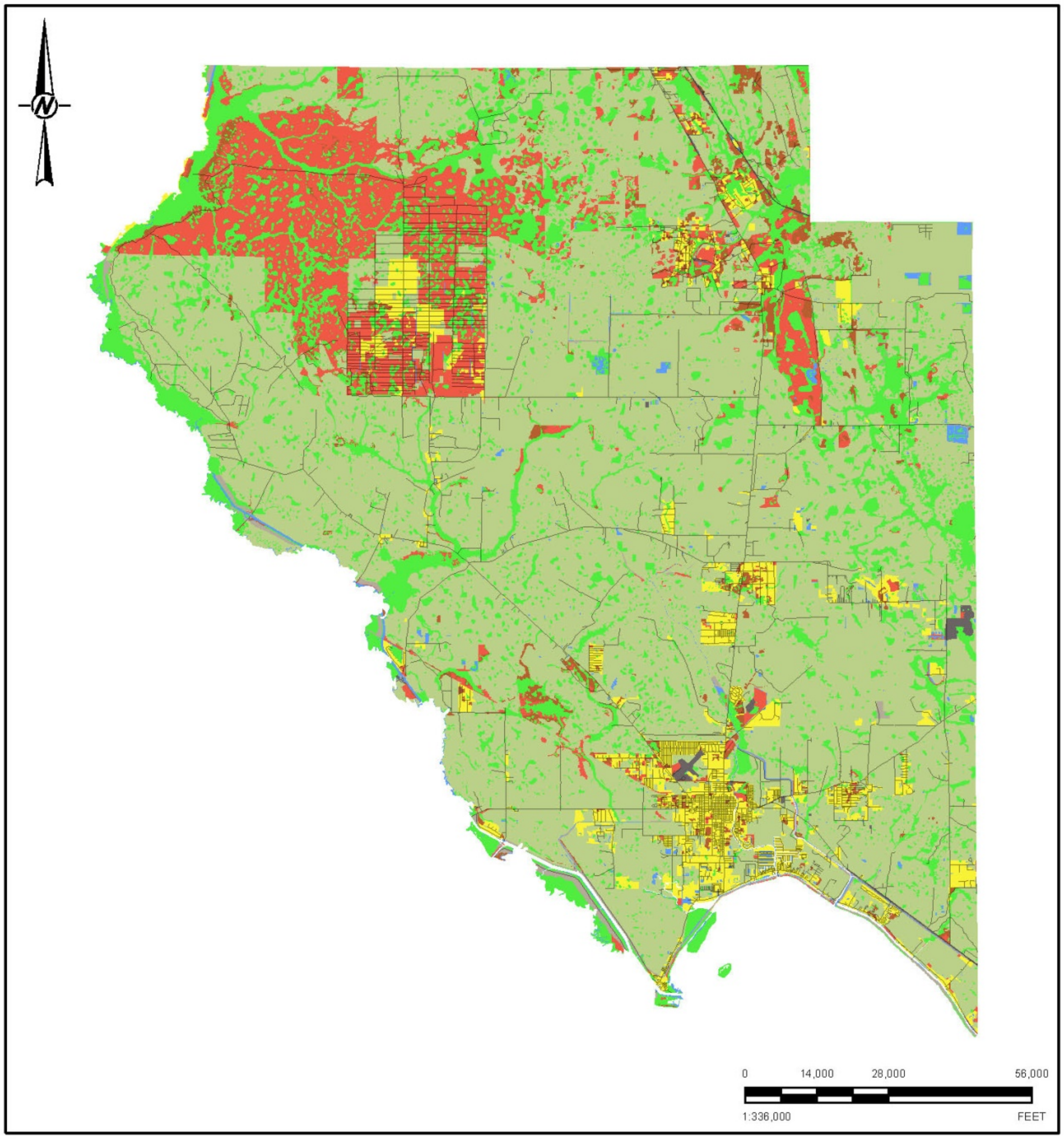
PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A084	0	2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

Environmental and Land Use Information: Supplemental Information

Potential Site # 4: Okeechobee County


81°10'0"W
81°0'0"W
80°50'0"W
80°40'0"W
27°40'0"N
27°30'0"N
27°20'0"N
27°10'0"N
OSCEOLA CO
OKEECHOBEE CO
INDIAN RIVER CO
OKEECHOBEE CO
ST LUCIE CO
OKEECHOBEE
HIGHLANDS CO
HIGHLANDS CO
GLADES CO
OKEECHOBEE CO
ST LUCIE CO
MARTIN CO
BRIGHTON
INDIAN RESERVATION
Copyright: © 2013 National Geographic Society
LEGEND
Okeechobee County
OKEECHOBEE COUNTY
0 12,000 24,000 48,000
1:336,000
Feet
REFERENCE(S)
1. OKEECHOBEE COUNTY, FPL, 2017.
COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983
CLIENT
FPL
PROJECT
OKEECHOBEE COUNTY
TITLE
USGS LOCATION MAP
CONSULTANT
YYYY-MM-DD 2019-03-12
DESIGNED NRL
PREPARED GFD
REVIEWED NRL
APPROVED NRL
PROJECT NO. 19119059
CONTROL A085
REV. 0
FIGURE 1



LEGEND

- Roads
- 100 - URBAN AND BUILT UP
- 200 - AGRICULTURE
- 300 - RANGELAND
- 400 - UPLAND FORESTS
- 500 - WATER
- 600 - WETLANDS
- 700 - BARREN LANDS
- 800 - TRANSPORTATION, COMMUNICATION AND UTILITIES

REFERENCE(S)
1. OKEECHOBEE COUNTY, FPL, 2016.
2. LAND USE, SFWMD, 2008, & SJRWMD, 2009

COORDINATE SYSTEM: NAD 1983 UTM ZONE 17N
PROJECTION: TRANSVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

CLIENT
FPL

PROJECT
OKEECHOBEE COUNTY

TITLE
LAND USE / LAND COVER

CONSULTANT		YYYY-MM-DD	2019-03-12
FPL		DESIGNED	NRL
		PREPARED	GFD
		REVIEWED	NRL
		APPROVED	NRL

PROJECT NO.	CONTROL	REV.	FIGURE
19119059	A086	0	**2**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

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 to be included in an electric utility's Ten Year Power Plant Site Plan filing. This specified information includes 12 items listed under a heading entitled "Other Planning Assumptions and Information." These 12 items 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 and internal limitations. External limitations involve FPL's ties to its neighboring electric systems. Internal limitations involve the flow of electricity within the FPL system.

The external limitations are important because they affect the development of assumptions for the amount of external assistance that is available to the FPL system as well as 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 that 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 the loss of load probability (LOLP) portion of its reliability analyses, FPL models this amount of external assistance as an additional generator within FPL's system that 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.

FPL addresses internal transmission limitations in economic analyses by identifying potential geographic locations for potential new generating units that minimize adverse impacts to the flow of electricity within FPL's system. The internal transmission limitations are also addressed by: 1) developing the direct costs for siting potential new units at different locations, 2) evaluating the cost impacts created by the new unit/unit location combination on the operation of existing units in the FPL system, and/or 3) evaluating the costs of transmission and/or generation additions that may be needed to address regional concerns regarding an imbalance between load and generation in a given region. Costs for these site, region, and system factors are developed for use in economic analyses. These factors are also considered in both system and regional reliability analyses.

When analyzing DSM portfolios, such as for a DSM Goals docket, FPL also examines the potential to avoid or defer regional transmission additions that might otherwise be needed. In addition, transfer limits for capacity and energy that can be imported into the Southeastern Florida region (Miami-Dade and Broward Counties) of FPL's system are also developed, as applicable, for use in FPL's reliability analyses and production costing analyses. (A further discussion of the Southeastern Florida region of FPL's system, and the need to maintain a regional balance between generation and transmission contributions to meet regional load, is found in Chapter III.)

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

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 FPL's levelized system average electric rates (*i.e.*, a Rate Impact Measure or RIM approach) as an economic criterion. In addition, for analyses in which DSM levels are not changed and only supply options are analyzed, FPL uses the equivalent criterion of the cumulative present value of revenue requirements (CPVRR) for its system.[12]

In December 2018, FPL developed the load forecast that is presented in this 2019 Site Plan. The only load forecast sensitivities analyzed during 2018 and/or early 2019 were extreme-weather sensitivities developed to analyze potential near-term operational scenarios and a higher load forecast scenario that was used to examine the projected future need for natural gas for the FPL system. These load forecast sensitivities and scenarios did not result in a change in the resource plan.

[12] 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 (*i.e.*, when only new generating options are considered), the lowest electric rate basis approach and the lowest system cumulative present value of revenue requirements (CPVRR) basis approach yield identical results in terms of which resource options are more economic. In such cases, FPL evaluates resource options on the simpler-to-calculate (but equivalent) lowest CPVRR 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 scenarios. 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 that FPL used to derive its fuel price forecasts are discussed in Chapter III of this document. FPL may use a single fuel cost forecast, or multiple fuel cost forecasts (Low, Medium, and High), in its analyses as appropriate.

In cases where multiple fuel cost forecasts are used, a Medium fuel cost forecast is developed first. Then FPL's approach has been to adjust the Medium fuel cost forecast upward (for the High fuel cost forecast) or downward (for the Low fuel cost forecast) by multiplying the annual cost values from the Medium fuel cost forecast by a factor of (1 + the historical volatility of the 12-month forward price, one year ahead) for the High fuel cost forecast, or by a factor of (1 – the historical volatility of the 12-month forward price, one year ahead) for the Low fuel cost forecast.

The resource plan presented in this Site Plan is based on an updated fuel cost forecast developed in December 2018.

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.

In its 2018 and early 2019 resource planning work, FPL did not utilize a forecast scenario in which the differential between oil/gas and coal was held constant. This is, in part, because FPL is currently using, and is projected to use, very little oil or coal (as shown on Schedules 5, 6.1, and 6.2 in Chapter III).

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 in Chapter I and Schedule 8 in Chapter III 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 its planning studies in recent years.

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

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.

FPL used the following financial assumptions in its 2018 analyses: (i) an incremental capital structure of 40.40% debt and 59.60% equity; (ii) a 4.88% cost of debt; (iii) a 10.55% return on equity; and (iv) an after-tax discount rate of 7.76%. In 2019, the incremental capital structure is 40.40% debt and 59.60% equity. In addition, the cost of debt has changed to 4.79%, the cost of capital remains unchanged at 10.55%, and the after-tax discount rate has changed to 7.73%. No sensitivities of these financial assumptions were used in FPL's late 2018/early 2019 resource planning work.

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 objective generally being to minimize FPL's projected levelized system average electric 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 revenue requirement (CPVRR) perspective for the system yield identical results in terms of which resource options are more economical when DSM levels are unchanged between competing resource plans. Therefore, in planning work in which DSM levels were unchanged, FPL utilizes the equivalent, but simpler-to-calculate CPVRR perspective.

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

FPL uses three system reliability criteria in its resource planning work that address various resource options including: utility generation, power purchases, and DSM options. One criterion is a minimum 20% Summer and Winter total reserve margin. Another reliability criterion is a maximum of 0.1 days per-year loss-of-load-probability (LOLP). The third criterion is a minimum 10% generation-only reserve margin (GRM). These three reliability criteria are discussed in Chapter III of this document.

In regard to its transmission reliability analysis, FPL has adopted transmission planning criteria that are consistent with those 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 Corporation (NERC). The *NERC Reliability Standards* are available on the NERC internet site (http://www.nerc.com/).

In addition, FPL has developed a *Facility Interconnection Requirements* (FIR) document. This document is available on FPL's Open Access Same-time Information System (OASIS) website, https://www.oatioasis.com/FPL/index.html, under the "Interconnection Request Information" directory. Furthermore, all new transmission facilities within the FPL service territory used to meet FPL load are planned to comply with Extreme Wind Loading Criteria as implemented in FPL Design Guidelines.

FPL generally limits planned flows on its transmission facilities to no more than 100% of the applicable thermal rating. There may be isolated cases for which FPL may have determined that it is acceptable to deviate from the general criteria stated below. There are several factors that could influence these criteria, such as the overall number of potential customers that may be impacted, the probability of an outage actually occurring, transmission system performance, and other factors.

The normal and contingency voltage criteria for FPL stations are provided below:

Normal/Contingency[13]

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	1.07/1.10
Turkey Point (*)	1.013/1.013	1.06/1.06
St. Lucie (*)	1.00/1.00	1.06/1.06

(*) Voltage range criteria for FPL's Nuclear Power Plants

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

FPL periodically revises the projected impacts of its DSM programs on demand and energy consumption. Engineering models, calibrated with current field-metered data, are updated at regular intervals. Participation trends are tracked for all of FPL's DSM programs in order to adjust impacts each year for changes in the mix of efficiency measures being installed by program participants. For its load management programs, FPL conducts periodic tests of the load management equipment to ensure it is functioning correctly. These tests, plus actual load management events, also allow FPL to gauge the MW reduction capabilities of its load management programs on an ongoing basis.

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

The Executive Summary and Chapter III provide a discussion of a variety of system concerns/issues that influence FPL's resource planning process. Please see those chapters for a discussion of those concerns/issues.

In addition to these system concerns/issues, there are other strategic factors that FPL typically considers when choosing among resource options. These include: (1) technology risk; (2) environmental risk, and (3) site feasibility. The consideration of these factors may include both economic and non-economic aspects.

[13] Immediately following a contingency, steady-state voltages may deviate from the normal voltage range if there are known automatic or manual operating actions to adjust the voltage to within the contingency voltage range. However, the steady-state voltage must never exceed voltage System Operating Limits (SOLs), which have a lower limit of 0.88pu and a higher limit of 1.10pu for all transmission facilities, excluding nuclear plant switchyards for which the SOLS are equal to the normal/contingency limits.

Technology risk is an assessment of the relative maturity of competing technologies. For example, a prototype technology that has not achieved general commercial acceptance has a higher risk than a technology in wide use and, therefore, assuming all else is equal, 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 projected environmental compliance costs. Technologies regarded as more acceptable from an environmental perspective for FPL's resource plan are those that minimize environmental impacts for the FPL system as a whole through highly efficient fuel use, state-of-the-art environmental controls, and generating technologies that do not utilize fossil fuels (such as nuclear and solar).

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 decision-making, including its decisions to construct capacity or 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 shown in this 2019 Site Plan, FPL's current resource plan reflects the following major supply-side or generation resource additions: ongoing upgrading of the combustion turbine (CT) components at various existing CCs throughout FPL's system, projected addition of new PV facilities, projected addition of a battery storage unit, addition of new CC capacity at the FPL Okeechobee Clean Energy Center, and additional new CC capacity from the Dania Beach Energy Center Unit 7 through the modernization of FPL's existing Lauderdale plant site.

CT upgrades are currently taking place at various CC units throughout the FPL system. The original equipment manufacturer (OEM) of the CTs approached FPL regarding the possibility of upgrading these units. Following negotiations with the OEM and economic analyses that showed upgrading was cost-effective for FPL's customers, FPL decided to proceed with the CT upgrades and the supporting balance of plant modifications. FPL completed the first series of upgrades in 2015. Additional upgrades are in progress and will continue for several years as discussed in other chapters of this Site Plan.

For new solar facilities, the selection of equipment and installation contractors has been, and will continue to be, done via competitive bidding. FPL consistently seeks bids from multiple suppliers for major components such as PV panels, inverters, and step-up transformers. Where possible, FPL aggregates and executes component purchases as a portfolio to achieve cost synergies. However, this must be balanced against rapid technology changes and potential future cost reductions. Therefore, FPL strategically manages the bundling of purchases over the planned construction horizon.

The remaining balance-of-system (BOS) purchases, such as racking and cabling, as well as engineering and construction services, are typically bid out to a number of contractors to determine the best value. Based on its extensive experience in building new, highly efficient universal solar facilities, FPL may elect to self-perform the engineering, procurement, and construction (EPC) of PV project execution if the company determines it can self-manage the EPC work at a lower cost than the bids it receives.

The selection of equipment and installation contractors for the projected battery storage facilities is expected to be done in a manner similar to that described above for the projected solar facilities.

FPL selected the Okeechobee CC, which is scheduled to begin commercial operation at approximately the same time this Site Plan is filed with the FPSC in 2019, after analyses of other potential FPL self-build generation options and after issuing a capacity Request for Proposals (RFP) in accordance with the FPSC's Bid Rule.

The modernization project at FPL's existing Lauderdale site received an FPSC waiver from the Bid Rule due to attributes specific to modernization projects (such as the ability to use existing gas and/or transmission infrastructure, ability to use land at an existing plant site, no incremental water requirements, etc.). In addition to these attributes, the Lauderdale modernization project, which will result in the addition of a new combined cycle unit (FPL Dania Beach Clean Energy Center Unit 7) is also projected to result in significant economic benefits for FPL's customers. Additionally, the new unit is projected to lower natural gas usage in the FPL system, and lower system emissions of SO_2, NO_x, and CO_2 compared to continuing to operate the existing Lauderdale generating units. The waiver from the Bid Rule was granted in Consummating Order No. PSC-2017-0431-CO-EI.

On March 19, 2018, the FPSC issued a final order granting an affirmative need determination for the planned new Dania Beach Unit 7 (Order No. PSC-2018-0150-FOF-EI). FPL will utilize a competitive bidding process to select equipment suppliers and installation contractors based on its assessment of price and supplier capability to realize the best generation option for its customers.

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.

FPL has identified the need for a new transmission line that required certification under the Transmission Line Siting Act (as shown on Table III.E.1 in Chapter III). The new transmission line is being constructed in a 500 kV line corridor that was certified in April 1990. The project, when fully constructed, will provide an additional connection between FPL's Midway Substation and its Levee Substation in Miami-Dade County. A portion of this corridor was utilized in 1994 to connect FPL's Corbett Substation (located along the corridor) in Palm Beach County to its Conservation Substation in western Broward County.

The next phase, called the Corbett-Sugar-Quarry (CSQ) line project, includes adding a 500 kV line from FPL's Corbett Substation in western Palm Beach County to a new 500 kV section of FPL's existing Sugar Substation (also in western Palm Beach County) and adding a 500 kV line from Sugar to FPL's Quarry Substation in Miami-Dade County. The Quarry 500/230 kV Substation is adjacent and connected to FPL's Levee Substation. The CSQ project, which will utilize another portion of the corridor from Corbett to Levee, is currently scheduled to be in service by June 2019. The CSQ line project is needed to increase transmission import capability into the Southeastern Florida region.