Ten Year Power Plant Site Plan 2022 – 2031



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Ten Year Power Plant Site Plan 2022-2031

Submitted To:

Florida Public Service Commission

April 2022

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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 addresses Florida Power & Light Company (FPL) which includes the former territory of Gulf Power Company (Gulf). NextEra Energy, the parent company of FPL, acquired Gulf in January 2019. Resource planning is now being done for the single entity of FPL, with the former Gulf territory now referred to as FPL's Northwest Florida region. The information presented in this Site Plan is based on integrated resource planning (IRP) analyses that were carried out in 2021 and that were on-going in the first Quarter of 2022. The forecasted information presented in this plan addresses the years 2022 through 2031.

This document is organized in the following manner:

Chapter I – Description of Existing Resources

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

Chapter II – Forecast of Electric Power Demand

The load forecasting methodology utilized for FPL, and the resulting forecast of seasonal peaks and annual energy usage, are 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 the integrated resource planning (IRP) process and presents currently projected resource additions for FPL. 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 also discusses previous and planned DSM efforts, the projected significant impact of state/federal energy-efficiency codes and standards, previous and planned renewable energy efforts, projected transmission additions, and the 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 for FPL.

Site descriptions and site maps for Preferred and Potential sites are located in the Appendix.

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.

Appendix – Site Descriptions and Site Maps for Preferred and Potential Sites.

The appendix includes all site descriptions and maps for the Preferred and Potential Sites that were included in Chapter IV.

FPL List of Abbreviations Used in FPL Forms

Reference	Abbreviation	Definition			
Reference	BS	Battery Storage			
	CC	Combined Cycle			
	CT	Combustion Turbine			
Unit Type	GT	Gas Turbine			
J	PV	Photovoltaic			
	ST	Steam Unit (Fossil or Nuclear)			
	IC	Internal Combustion			
	BIT	Bituminous Coal			
	FO2	#1, #2 or Kerosene Oil (Distillate)			
	FO6	#4,#5,#6 Oil (Heavy)			
	N/A	Not Applicable			
	NG	Natural Gas			
Fuel Type	No	None			
	NUC	Uranium			
	Pet	Petroleum Coke			
	Solar	Solar Energy			
	SUB	Sub Bituminous Coal			
	ULSD	Ultra - Low Sulfur Distillate			
	N/A	Not Applicable			
	No	None			
Fuel Transportation	PL	Pipeline			
	RR	Railroad			
	TK	Truck			
	WA	Water			
	L	Regulatory approval pending. Not under construction			
	OP OF	Operating Unit			
	OT	Other			
Unit/Site Status	P	Planned Unit			
	RT -	Retired			
	T	Regulatory approval received but not under construction			
	U V	Under construction, less than or equal to 50% Complete			
		Under construction, more than 50% Complete			
	ESP	Electrostatic Precipitators The K factor for the capital costs of a given unit is the			
	K Factor	cumulative present value of revenue requirements (CPVRR)			
Other	TO LOCIO	divided by the total installed cost			
	ST	Solar Together			
	SOBRA	Solar Rate Base Adjustment			



Executive Summary

This Ten-Year Site Plan (Site Plan) document addresses the projected electric power generating resource additions and retirements for the years 2022 through 2031 for Florida Power & Light Company (FPL), including the service area of the former Gulf Power Company. Effective January 1, 2022, Gulf Power was merged into FPL for ratemaking purposes. As a result, the two utility systems are now legally a single electric utility system, the FPL system¹. However, at the time this Site Plan is filed, the two systems are operating as two separate electric systems. The full consolidation of the two electric systems is scheduled to occur in mid-2022 upon completion of the new 161 kilovolt (kV) transmission line, the North Florida Resiliency Connection (NFRC) line, that is currently under construction. At that time, the two systems will begin operating as a single, integrated utility system.

This enhanced connection, and the planning and operation of a single integrated system, will benefit customers throughout all of FPL's service area by better enabling the siting of clean, reliable, low-cost generation, and the common dispatch and transmission of energy from those facilities. Consequently, the resource planning work during early 2022 that is discussed in this Site Plan has focused on developing a resource plan for the single integrated system.

I. Two Significant Changes to FPL's 2022 Site Plan Document

In this year's Site Plan document, FPL has made two significant changes to the analyses that have been performed and the information presented. The first change is one that FPL is making to its Winter peak load forecast. The second is the consideration that FPL's resource planning work has given to potential new tax credits for batteries, solar, and hydrogen that were contained in the Build Back Better America (BBB) federal legislation that was proposed during 2021. Although the BBB was not enacted at the time this Site Plan was finalized, the current federal administration has expressed a strong interest in trying to enact the same, or similar, legislation that will encourage the continued penetration of renewable, zero-emission energy sources to further reduce carbon emissions. As a result, FPL has continued to analyze the impacts to resource planning outcomes associated with the tax credits that were part of the BBB.

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¹ The terms "FPL" and "Gulf" will be used occasionally in this document, particularly in Chapters I and II where certain required schedules must provide data for years preceding 2022. Elsewhere in the document, references to the former Gulf Power service area will typically be referred to as "NW Florida" to distinguish that portion of FPL's overall service area.

Change # 1: FPL's Winter Peak Load Forecast:

In all prior Site Plans, FPL used a "P50" load forecast for system Summer and Winter peaks. A "P50" designation for a forecast denotes that there is a 50% probability that the actual peak load will be higher than the forecasted peak load, and a 50% probability that the actual peak load will be lower than the forecasted peak load. FPL's service area experiences hot weather every year that extends over multiple months. As a result, if the actual Summer peak load is higher than the P50 forecast, the actual peak will typically be only several hundred megawatts (MW) higher than the forecasted value. This is not the case, however, for Winter peak loads.

Most of FPL's service area typically experiences relatively mild Winter temperatures and extreme Winter temperatures that result in very high electric loads are infrequent. Because of this fact, an occurrence of extreme Winter temperatures over several consecutive days can result in actual Winter loads that are thousands of MW higher than a P50 forecasted load. FPL experienced very high Winter loads in 1989 and again in 2010. In the 1989 event, the electrical heating loads were so high that FPL could not serve all of the customer demand. This resulted in large numbers of customers experiencing periods in which power to their homes could not be delivered, *i.e.*, customers experienced "rolling blackouts".

In February 2021, multiple consecutive days with extremely low temperatures occurred in Texas and elsewhere in the middle of the country. This resulted in millions of customers being without power for days. In addition to the hardship these customers endured, the negative economic consequences for businesses in the affected areas and the state were significant.

The 2021 Texas experience prompted FPL to take a company-wide examination of how well its generation, transmission, distribution, and fuel delivery systems were positioned should an extreme Winter event occur in Florida. This review reached two basic conclusions. The first conclusion was that FPL could not be sure of its ability to serve all its customers in the event of an extreme Winter event with the resource plan presented in FPL's 2021 Site Plan. The second conclusion followed from the first conclusion: the prudent course of action was for FPL to take steps to be better prepared for an extreme Winter event.

In order to analyze extreme Winter events, the first step FPL took was to develop a new load forecasting approach. In this new approach, FPL switched from using a P50 load forecast for all 12 months to a hybrid-type forecast that projects a P50 peak load for 11 months, with an extreme Winter peak load for the month of January only.²

² The extreme Winter forecast is based on a composite of the already experienced 1989 and 2010 very high Winter loads. The actual temperatures from 1989 were merged with the load shapes from the 2010 occurrence. (Due to the rotating blackouts during the 1989 Winter, accurate actual hourly loads were difficult to determine.) Details regarding this forecast are provided in Chapter II.

After months of analyses utilizing this new hybrid load forecast, FPL identified a number of other steps which it believes are prudent to take to prepare for an extreme Winter event. Two of these steps were begun in 2021: (i) enhanced winterization of FPL's nuclear and fossil-fueled generating units, and (ii) enhanced cooperation and preparation between FPL and suppliers of natural gas and backup distillate fuel oil.

FPL's analyses also identified additional resource planning steps which it believes are prudent to also take to better prepare for an extreme Winter event. These steps encompass FPL's generation, transmission, distribution, and fuel delivery systems. By design, the primary focus of a Site Plan document is a utility's generation system. With that in mind, the additional steps FPL has identified for FPL's generation and fuel delivery systems in preparation for extreme Winter events are listed below:

- Adding the capability to burn backup distillate fuel oil at two Southwest Florida generating units (Manatee Unit 3 and Ft. Myers Unit 2);
- Utilizing two types of "near-term" capacity additions in the first half of the 10-year reporting period. The first of these near-term capacity additions is to delay the previously scheduled retirement dates of five generating units and, instead, repurpose them as Winter-only generating units that will be used only if extreme Winter weather is forecast for FPL's service area. (These units are: Manatee Units 1 & 2, Gulf Clean Energy Center Units 4 & 5, and Lansing Smith Unit A.³ The five units, in total, comprise approximately 1,790 MW of Winter capacity) The second type of near-term capacity additions is to install upgrade packages to a number of FPL's existing combined cycle generating units to increase their capacity during extreme Winter events; and
- Planning to also install additional "longer-term" generating capacity, in the form of new battery storage facilities, in the second half of the 10-year reporting period.

Because extreme Winter events are infrequent in Florida, FPL cannot accurately forecast when; *i.e.*, in what year, the next such event will occur, but FPL believes that extreme Winter events will occur in the future. FPL's analyses showed that not adding these capacity additions could lead to significant customer outages in FPL's service area during an extreme Winter event if one were to occur over the next 10 years. Table ES-1 below shows a current projection of how many customer outages, of 30-minute duration, would be projected to occur if an extreme Winter event were to occur in any one of the 10 years addressed in this Site Plan.⁴ As expected, the projected number

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³ In order to be better prepared if an extreme cold weather event occurred during the Winter of 2021/2022, and to test the concept of being able to return an idled generating unit back for short-term Winter operation, FPL successfully brought back the Manatee Units 1 & 2 for a short time at the end of January 2022. The units have now been moved back into inactive reserve status.

⁴ Table ES-1 presents the projection in terms of 30-minute outages which is the typical amount of time a customer would be out of electrical service if FPL's generation could not meet the extreme Winter load and had to resort to rolling blackouts.

of customer outages increases during this time frame due to a steadily growing number of customers.

Table ES-1: Projected Customer Outages in an Extreme Winter Event

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031
Projected No. of Customer Outages	0	597.399	1.311.537	2.328.121	4.692.701	7.654.727	10 506 524	11,242,813	13.609.494
(30 minutes each)	U	351,333	1,311,337	2,320,121	4,032,701	7,034,727	10,300,324	11,242,013	13,003,434

The near-term and longer-term capacity additions previously discussed are projected to greatly minimize and/or eliminate these possible outages.

Therefore, in this Site Plan, FPL is presenting a "Recommended" resource plan which is designed to recognize the eventual occurrence of extreme Winter peak loads (through the use of the hybrid forecast) and to prepare for such events (through planning to add both the near-term and longer-term capacity additions described above). Pursuant to Section 186.801(2), Florida Statutes, FPL requests that the FPSC classify this "Recommended" plan 'suitable' for planning given the possibility of an extreme Winter event in the FPL service area.

Additionally, FPL is presenting a second resource plan this year as one of two official plans for FPSC review. The second resource plan, FPL's "Business as Usual" resource plan, continues to use a P50 peak forecast for all 12 months as has been used in prior Site Plans. This resource plan does not attempt to prepare for how FPL would serve customers during a future extreme Winter peak load and, as such, does not include either the near-term or longer-term capacity additions that are part of the Recommended resource plan.

Change # 2: FPL's Consideration of the Impacts of the Tax Credits for Batteries, Solar, and Hydrogen That Were Part of the Proposed "Build Back Better America" (BBB) Federal Legislation:

The BBB was proposed during 2021, but the legislation was not enacted at the time this Site Plan was finalized. However, the current federal administration has indicated it would continue efforts to enact at least parts of the legislation, specifically the pieces focused on expanding the adoption of renewable energy sources to reduce carbon emissions. Of most interest to FPL's resource planning work is the part of the BBB that proposed significant changes in tax policy for new utility-owned batteries, solar, and hydrogen.

The current tax incentive for new utility-owned batteries is an investment tax credit (ITC) of 10% which effectively lowers the capital cost for a new battery. The BBB would have increased the ITC for new batteries to 30%. For new utility-owned solar, the current tax incentive is also an ITC that is 26% through 2025, then 10% for several years thereafter. The BBB would have allowed for a utility to elect a production tax credit (PTC) for new solar that would have been based on the amount of energy (MWh) the new solar facility would generate each year for the first 10 years of operation.

The PTC would start in 2023 at \$25 for each MWh generated⁵. The \$25 per MWh credit amount for a new solar facility that comes in-service increases with inflation each year through 2035. Currently, there are no tax credits for hydrogen facilities. The BBB proposed a PTC of \$3 per kilogram of hydrogen produced from new hydrogen facilities.

In its 2021 and early 2022 resource planning work, FPL focused on the proposed tax credits for batteries and solar. FPL analyzed resource plans both with and without the proposed new tax credits. The projected result of such new tax credits is a significant increase in the amount of solar and batteries that would be selected for FPL's resource plan given the economic benefits of the tax credits.

Because there is a possibility that these (or similar) tax credits for new batteries and solar could be enacted later in 2022, FPL is presenting a third and fourth resource plan in this Site Plan. The third resource plan is labeled as "FPL's (FYI-Only) Resource Plan with New Tax Credits and Extreme Winter Load". It assumes that the same tax credits for batteries and solar proposed in the BBB are enacted and uses the same hybrid-type load forecast described above. The fourth resource plan is labeled as "FPL's (FYI-Only) Resource Plan with New Tax Credits and P50 Winter Load". This resource plan also assumes these same tax credits are enacted, but this resource plan uses the "Business as Usual" P50 peak load forecast for all 12 months. The third and fourth resource plans are included in this Site Plan solely for informational purposes to show how much additional battery and solar resources would likely be selected if these new tax credits were enacted. Consequently, the third and fourth resource plans should <u>not</u> be considered as FPL's official resource plans for purposes of the 2022 Site Plan filling.

The Four Resource Plans:

The annual resource additions and retirements for the four resource plans described above are presented at the end of this Executive Summary chapter. The schedules that are required for a Site Plan filing are presented only for FPL's Recommended and Business as Usual resource plans in the chapters that follow. The text discussion in the rest of this Site Plan also focuses solely on these two resource plans, especially on FPL's Recommended resource plan. No further discussion of the two (FYI-Only) resource plans appears in subsequent chapters.

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⁵ To give an idea of the magnitude of the impact of the solar PTC, consider a simple example of a 75 MW solar facility that produces approximately 150,000 MWh per year in 2023 (*i.e.*, if assuming a net capacity factor of 23%). The proposed solar PTC for that year would result in a tax credit of (150,000 MWh x \$25/MWh =) \$3.75 million. This first-year tax credit would then be extended for 9 more years. This PTC would have the effect of reducing the cost of a solar facility over its operating life by more than 30% as compared to the current ITC.

⁶ Regarding hydrogen, FPL's immediate focus is on a pilot project designed to test the feasibility of using hydrogen to partially replace natural gas as a fuel in an existing combined cycle generating unit. This project is discussed later in this Site Plan.

II. Background / Overview of FPL's 2022 Site Plan

This 2022 Site Plan presents the current plans to augment and enhance the electric generation capability of the FPL system as part of efforts to cleanly and reliably meet projected incremental resource needs for 2022 through 2031. FPL already has one of the cleanest emission profiles of any electric utility in the U.S. FPL's emission profile is projected to become even cleaner through several planned actions during the 10-year reporting period of this document. These actions include the following: (i) the retirement of FPL's ownership portion of a large coal-fueled generating unit (Scherer Unit 4) located in Georgia that occurred on January 1, 2022, (ii) the completion of the Very fuel-efficient Dania Beach Clean Energy Center generating unit in mid-2022, (iii) the completion of the North Florida Resiliency Connection (NFRC) transmission line in mid-2022, (iv) the retirement in 2024 of FPL's 50% ownership portion of two coal-fueled generating units (Daniel Units 1 & 2) located in Mississippi, (v) the planned retirement at the end of 2028 of FPL's approximately 25% ownership portion of the coal-fueled Scherer Unit 3 in Georgia, and (vi) the addition of approximately 9,462 MW of zero-emission solar generation of during this reporting period.

Regarding carbon emissions, FPL (including FPL's Northwest Florida area) delivered approximately 25% of its energy from zero-emission nuclear and zero-emission solar during 2021. Nearly all of the remainder of FPL's energy needs in 2021 came from low-emission natural gas. By 2031, the last year of the 10-year reporting period addressed in this document, the percentage of the total energy delivered to all customers for FPL's system from zero-emission sources is projected to be approximately 38%. This increase in the percentage of energy that is projected to be delivered by zero-emission sources is significant for a utility system of this size, especially when considering that the total amount of energy projected to be delivered to customers in 2031 will have also increased by approximately 10% as discussed in Chapter II. The graph below in Figure ES-1 represents a ten-year projection for the years 2022 through 2031 of the percentage of FPL's total generation (GWh) that is projected to be zero-emission energy. Further details regarding projections of energy by fuel/generation type are presented in Schedules 6.1 and 6.2 in Chapter III.

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⁷ These solar additions include solar facilities that support FPL's SolarTogether program. In the SolarTogether community solar program, participating customers share in the costs and benefits of dedicated FPL SolarTogether photovoltaic facilities and have the environmental attributes associated with their participation retired by FPL on their behalf.

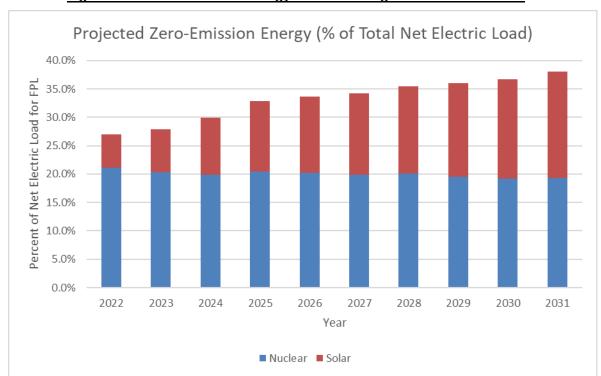


Figure ES-1: Zero-Emission Energy as a Percentage of Net Electric Load

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 herein are resources projected to be needed after accounting for existing and projected demand side management (DSM) resources. In 2019, the Florida Public Service Commission (FPSC) established DSM Goals for the years 2020 through 2024 for several Florida utilities, including FPL and the former Gulf Power. These DSM Goals address demand side activities that reduce system peak loads and annual energy usage, along with consideration of the impacts of DSM on electric rates under which all customers are served. In 2021, FPL filed, and the FPSC approved, an Integrated DSM Plan for the single, integrated FPL system that accounts for the DSM Goals previously assigned to the legacy FPL system and the former Gulf Power system.

Throughout this document, the resource plan details discussed are based on analyses that assume that FPL will meet its DSM Goals for Summer MW reduction, Winter MW reduction, and annual energy (MWh) reduction through the end of 2024. In addition, further DSM reductions for the years 2025 through 2031 are assumed based on FPL's projections in the 2019 DSM Goals docket of then-cost-effective DSM levels starting in 2025. DSM is discussed in more detail in Chapters I, II, and III.

Additionally, FPL's load forecasts account for a very large amount of energy efficiency that results from federal and state energy-efficiency codes and standards. The projected impacts of these

energy-efficiency codes and standards are discussed later in this Executive Summary and in Chapters II and III. The updated load forecasts presented in this Site Plan also account for a projected increase in electric vehicle (EV) adoption.⁸

FPL's projected resource additions and retirements over the 10-year reporting period are summarized below in Section III of this Executive Summary. In addition, there are several factors that either have influenced, or may influence, ongoing resource planning efforts. These factors could result in different resources being added in the future than those presented in this document. These factors are discussed in Section IV of this Executive Summary. Additional information regarding the topics is presented later in this document in Chapter III.

III. Summary of Projected Changes in Resources:

A summary of the projected resources, including resource additions and retirements is presented below. This discussion is presented in terms of the various types of resource options (such as solar and battery storage) in the resource plan.

Solar:

At the end of 2021, FPL had a total of approximately 3,239 MW ⁹ of utility-owned solar generation. Of this total, approximately 3,164 MW are from photovoltaic (PV) facilities and 75 MW are from a solar thermal facility. These solar sites are located throughout FPL's service area. FPL also has a total of 120 MW of solar delivered from three PV sites under three long-term power purchase agreements (PPAs).

The resource plan presented in this Site Plan continues to show significant increases in solar (PV) resources over the 10-year reporting period. Approximately 9,462 MW of additional PV generation is projected to be added in the 2022 through 2031 time period in FPL's Recommended Resource Plan. These solar MW consist of solar facilities that are projected to be 74.5 MW each. When combining these projected additional solar facilities with the approximately 3,164 MW of solar PV already installed on FPL's system at the end of 2021, FPL's projected total of solar PV by the end of 2031 is 12,626 MW. In addition, there is a 75 MW solar thermal facility located at FPL's Martin plant site. ¹⁰

⁸ Because EVs alter the demand for electricity, utility activities that address EV charging and discharging are also DSM activities.

⁹ This total includes solar facilities that serve the SolarTogether program as described earlier. Also, each reference to PV capacity throughout this Site Plan reflects the nameplate rating, Alternating Current (AC), unless noted otherwise.

¹⁰ This projected growth in solar facilities will enable FPL to meet its January 2019 "30-by-30" announcement (an objective of installing 30 million solar panels by 2030) by the end of 2025; *i.e.*, five years ahead of schedule.

In regard to the solar additions shown in the four resource plans presented in this Site Plan for the 10-year reporting period, FPL received cost recovery approval from the FPSC for some of these additions as a result of FPL's 2021 base rate case and the FPSC-approved Settlement Agreement. These include solar additions in 2022 and 2023; solar additions in 2024 and 2025 pursuant to the Solar Base Rate Adjustment provisions in the 2021 Settlement Agreement upon a determination of cost-effectiveness; and SolarTogether Extension-related solar additions in 2023, 2024, and 2025. The other solar additions shown in this Site Plan for the years 2026 through 2031 are based on an expectation that these solar additions will also be shown to be cost-effective, including potentially through future community-oriented solar programs such as SolarTogether. FPL's resource planning work in 2022 and beyond will continue to analyze the projected system economics of these later solar additions. FPL will seek FPSC approval for cost recovery for these later solar additions at appropriate times as has been FPL's practice with previous solar additions.

Battery Storage:

At the end of 2021, a battery storage facility with a projected maximum output of 409 MW was placed in-service at the existing Manatee plant site. This large battery storage facility is charged by solar energy from an existing nearby PV facility. Another 60 MW of battery storage, consisting of two 30 MW battery storage facilities installed at two different locations in the FPL service area, were also put into service at the end of 2021. Both 30 MW battery storage facilities are also charged by existing solar facilities. In addition, FPL's Recommended Resource Plan presented in this Site Plan projects that an additional 3,200 MW of battery storage facilities will be installed by 2031, which results in a total of 3,669 MW by the end of 2031. These battery facilities are projected to be sited throughout FPL's service area.

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 several other battery storage applications to gauge the potential for such applications to be beneficial for customers if/when projected battery storage 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.

Modernization of FPL's Fossil-Fueled Generation:

For a number of years, FPL has undertaken a variety of efforts to modernize its fossil-fueled generation fleet based on cost-effectiveness. These efforts have resulted in substantial enhancements to the fleet of generating units, including improved system fuel efficiency and increased capacity, reduced system air emission rates, and reduced fuel-related costs for FPL's customers. FPL plans to continue these efforts and to further improve the efficiency and capabilities of FPL's generation fleet through four principal initiatives: (i) retirement of existing generating units that are no longer economic to operate, (ii) enhancements to existing generating units, (iii) addition

of cost-effective new gas-fueled generation as appropriate, and (iv) a pilot program to test the feasibility of substituting zero carbon emission hydrogen as a potential fuel for FPL's fleet of CC units. These four modernization efforts are separately described below.

(i) Retirement of Existing Generating Units That Are No Longer Economic to Operate:

As part of a modernization project at FPL's existing Lauderdale power plant site, the combined cycle (CC) units Lauderdale Units 4 & 5 have been retired and a new CC unit, the Dania Beach Clean Energy Center (DBEC), is being constructed on the site. The new unit is projected to go inservice by mid-2022. 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 current resource plan presented in this Site Plan also reflects the planned early retirements of four coal-fueled generating units. First, the retirement of FPL's 76% ownership portion (approximately 630 MW) of the Scherer Unit 4 in Georgia occurred in January 2022. Additionally, an early retirement of FPL's ownership portion of two coal-fueled steam units by January 2024 is also planned. These units, Daniel Units 1 & 2, are located in the Mississippi Power service territory, and FPL's 50% ownership interest in the two units totals approximately 500 MW. Finally, the retirement of FPL's approximately 25% ownership share (215 MW) in the coal-fueled Scherer Unit 3 in Georgia is planned by the end of 2028.

(ii) Enhancements to Existing Generating Units:

In its 2021 Site Plan, FPL discussed plans to upgrade the combustion turbine (CT) components in a number of FPL's existing CC units. These upgrade efforts remain a part of FPL's resource planning. The initial upgrades discussed in the 2021 Site Plan primarily provided additional Summer MW capacity. Other new upgrades projected in this Site Plan are designed to provide approximately 700 MW of Winter-only additional capacity as part of the effort to plan for extreme Winter events. Information regarding the specific units, timing, and magnitude of these upgrades is presented in Schedule 8 in Chapter III.

(iii) Addition of Cost-Effective Natural Gas-Fueled Generation:

The only new natural gas-fueled generation resource projected to be added in the 10-year reporting period of this Site Plan is the completion of DBEC unit that is scheduled to come in-service in mid-2022. The completion of this project will provide needed around-the-clock power to the important Miami-Dade County and Broward County area which is the load center for the FPL system.

(iv) The Green Hydrogen Pilot Program:

In addition to the soon-to-be-added DBEC unit, FPL's fleet of existing CC units is comprised of numerous highly fuel-efficient generating units that deliver energy to FPL's customers on an

around-the-clock basis throughout the year. As such, these units currently comprise the backbone of FPL's generation system.

Looking to the future, FPL believes that these units, with some modifications, may likely be fueled by hydrogen instead of by natural gas. The use of natural gas as a fuel for these units already results in the lowest carbon emissions possible from fossil fuel use. However, being able to use hydrogen as a fuel would result in zero carbon emissions from the operation of these units. Therefore, FPL is proceeding with a pilot project that will test using hydrogen to replace a portion of the natural gas that is currently being used to fuel the existing Okeechobee CC unit.

In the pilot project, hydrogen will be created by using solar energy, or other energy from the electric grid, to power an electrolyzer at the plant site that will separate water into hydrogen and oxygen. (If the hydrogen is created using only solar or other renewable energy sources, the hydrogen is referred to as "green" hydrogen.) The resulting hydrogen will be stored in on-site tanks until it is used as a fuel. The objective of the pilot project is to test, in practice, the concept of replacing natural gas with hydrogen as a fuel for CC unit use. If successful, the pilot project is expected to guide the way for future use of hydrogen in a larger way as a fuel in FPL's fleet of CC units, thus lowering or eliminating carbon emissions from FPL's fleet of CC units in the future. This pilot project is projected to go into service in late 2023.

Nuclear energy:

Nuclear energy remains an important factor in FPL's resource planning due to its combination of low fuel cost, around-the-clock operation, and zero emissions. In June 2009, FPL began the process of securing Combined Operating Licenses (COLs) from the federal Nuclear Regulatory Commission (NRC) 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. These licenses remain valid for approximately 20 years.

At this time, FPL has paused regarding a decision whether to seek FPSC approval to move forward with construction of Turkey Point Units 6 & 7. FPL intends to incorporate into any decision regarding Turkey Point Units 6 & 7 the construction experience (and, later, the operating experience) of the nuclear units currently under construction by Georgia Power at its Vogtle site and similar units being built in China. As a result, the earliest possible in-service dates for Turkey Point 6 & 7 are beyond the 10-year time period addressed in this 2022 Site Plan. This Site Plan continues to present the Turkey Point location as a Preferred Site for nuclear generation as indicated in Chapter IV.

On January 30, 2018, FPL applied to the NRC for Subsequent License Renewal (SLR) for FPL's existing Turkey Point Units 3 & 4. The previous license terms for these two existing nuclear units

extended into the years 2032 and 2033, respectively. The SLR requested approval to extend the operating licenses by 20 years to 2052 and 2053, respectively. The NRC granted approval for the SLR in December 2019. On February 24, 2022, the NRC reversed its adjudicatory decision interpreting environmental rules related to SLRs. In particular, the NRC concluded that its environmental review under the National Environmental Policy Act was insufficient. With this action, the NRC directed its staff to amend the Turkey Point Units 3 & 4 operating licenses by removing the 20-year term of licensed operation added by the SLR, thereby restoring the previous operating license expiration dates of 2032 and 2033 for Turkey Point Units 3 & 4, respectively.

Other than this change to the expiration dates, the subsequently renewed operating licenses remain in place. This decision, together with an associated decision by the NRC that applies to all SLR applications nationwide, provide that SLR applicants, instead of relying on the NRC's existing generic Environmental Impact Statements (EIS) for license renewal, may satisfy the environmental review requirements either by requesting the NRC Staff to proceed with an entirely site-specific EIS or by waiting for the NRC to issue a new generic EIS that will apply specifically to SLR applications, which the NRC has directed the NRC Staff to initiate. This action does not affect the NRC's review of the safety aspects of FPL's application, and prior site-specific findings in the existing EIS still support an extended license period in any subsequent proceeding. FPL is evaluating the NRC's decisions to determine the next steps in license renewal process for these units. For purposes of this Site Plan filing, FPL's resource planning analyses have assumed the continued operation of Turkey Point Units 3 & 4 through the new license termination dates of 2052 and 2053 for Turkey Point Units 3 & 4, respectively.

In the 3rd Quarter of 2021, FPL applied to the NRC for an SLR for its existing St. Lucie nuclear Units 1 & 2. If approved by the NRC, the SLRs for St. Lucie Units 1 & 2 will extend the licenses for those facilities for an additional 20 years; until 2056 and 2063, respectively. The NRC is currently scheduled to make a decision on FPL's SLR request for the St. Lucie units by mid-2023, but those dates are likely to be delayed somewhat as the NRC revises its generic EIS for license renewal in response to their recent Turkey Point SLR decision.

IV. Other Factors That Have Influenced, or Could Further Influence, FPL's Resource Planning Work:

There are a number of factors that have influenced, or which may influence, FPL's resource planning work. Two of these factors – extreme Winter peak loads and legislation such as the BBB with its changes in tax credits for batteries, solar, and hydrogen – have previously been discussed. In addition, there are 8 other factors that are summarized below. These additional factors are

presented in no particular order and their potential influences on FPL's resource planning work are further discussed in Chapters II and III.

Factor # 1: The critical need to maintain a balance between load and generating capacity in specific regions of FPL's service area, such as 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 DBEC unit described previously.

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 projecting the addition of significant amounts of PV generation throughout the 10-year reporting period of this document. These PV additions enhance fuel diversity. At the same time, FPL is continuing to retire coal generation because these generating units are 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 and, for purposes of system reliability, to maintain the ability to use backup distillate oil that is stored on-site at many of FPL's gas-fueled generating units.

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 criterion 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 are projected to have significant impacts by reducing forecasted Summer and Winter peak loads, and by reducing annual net energy for load (NEL), in FPL's system. From the end of 2021 through the year 2031, these energy-efficiency codes and standards are projected to reduce Summer peak load by approximately 1,640 MW, reduce Winter peak load by approximately 419 MW, and reduce annual energy usage by approximately 3,821 GWh. In addition, energy-efficiency codes and standards significantly reduce the potential for cost-effective utility DSM programs. The projected impacts of these energy-efficiency codes and standards are discussed in more detail in Chapter II.

Factor # 5: The trend of declining fuel costs for FPL's fossil-fueled generation fleet. There are two main factors that drive utility system costs for its fossil-fueled generation fleet: (i) forecasted natural gas costs, and (ii) the efficiency with which generating units convert fuel into electricity. The trends for both of these factors are in a direction that results in lower fuel-related costs for FPL's customers. Even though certain factors have caused a recent increase in short-term natural gas prices, the natural gas price forecast used in FPL's 2022 resource planning work projects lower overall natural gas prices than the natural gas price forecast used in FPL's 2021 resource planning work.

In regard to the fuel efficiency of FPL's fossil-fueled generating units, the amount of natural gas (measured in mmBTU) needed to produce a (kilowatt-hour) kWh of electricity has declined from approximately 9,621 in 2001 to approximately 7,079 in 2021 as shown in Figure ES-2 below. This improvement of approximately 26% in fuel efficiency is truly significant, especially when considering the 20,000 MW-plus magnitude of gas-fueled generation on FPL's system. These trends of steadily lowering of key components of utility system costs are very beneficial to a utility's customers because they help to lower electric rates ¹¹.

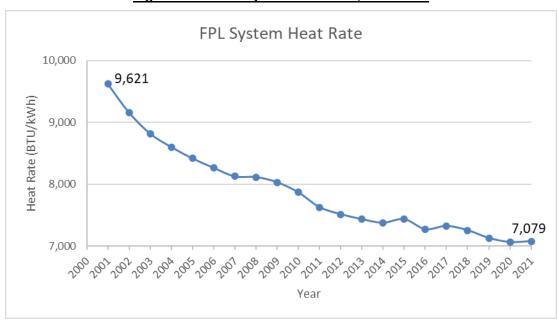


Figure ES-2: FPL System Heat Rate; 2001-2021

This significant improvement in FPL's fuel efficiency has resulted in a projected cumulative savings for FPL's customers of approximately \$11.9 billion dollars over this same time period.

¹¹ However, because the potential benefits of utility DSM programs are based on DSM's ability to avoid utility system costs, such as fuel costs, the trend of steadily decreasing system fuel \$/MWh costs automatically results in a significant lowering of the cost-effectiveness of utility DSM programs that focus on reducing annual energy use.

Factor # 6: Projected changes in CO₂ regulation and associated compliance costs. Since 2007, FPL has evaluated potential carbon dioxide (CO₂) regulation and/or legislation and has utilized projected compliance costs for CO₂ emissions from the consultant ICF 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. Due to questions regarding federal policy stemming from a new administration and potential legislative action by the U.S. Congress, the uncertainty around projected CO₂ compliance costs persisted in late 2021 and early 2022 when FPL froze assumptions and forecasts for its 2022 resource planning work. Because of the continued uncertainty, and after consulting with ICF, FPL is using the same forecast of potential CO₂ compliance costs in its 2022 resource planning work that it used in its 2021 work.

<u>Factor # 7: Cost uncertainty regarding future solar and battery additions.</u> As this Site Plan is being finalized, there is enhanced uncertainty regarding the cost of solar and battery facilities, especially in the near-term. This uncertainty is driven by several factors including supply chain problems, tariffs, and increased inflation, all of which could increase solar and/or battery costs. On the other hand, the previously mentioned potential new tax credits could significantly lower the net cost of new solar and/or batteries both directly, and indirectly over the long-term by increasing the demand for these products.

<u>Factor # 8: Projected increases in electric vehicle (EV) adoption.</u> FPL's current load forecast includes a higher projection of EV adoption than the load forecast that was used to develop the resource plan presented in the 2021 Site Plan. This results in projections of both higher annual MWh usage and higher Summer and Winter peak loads than was the case in the 2021 Site Plan. These projected impacts of EVs on annual energy usage and peak loads are discussed later in this document in Chapter II. Both the higher MWh and peak hour MW impacts have resource planning implications.

Each of these factors described above will continue to be examined in FPL's ongoing resource planning work in 2022 and future years.

V. Four Resource Plans:

As previously mentioned in this chapter, FPL is presenting four resource plans in this 2022 Site Plan document. Two of these resource plans, the FPL Recommended Resource Plan and the FPL Business as Usual Resource Plan, are the "official" resource plans being presented for the FPSC's review. The other two resource plans, FPL's (FYI-Only) Resource Plan With New Tax Credits and Extreme Winter Load and FPL's (FYI-Only) Resource Plan With New Tax Credits and P50 Winter Load, are presented solely for informational purposes to show how FPL's resource plans might

change if changes in tax credits for batteries, solar, and/or are enacted. These four resource plans are shown, respectively, below in Tables ES-2 through ES-5.

In addition, the format in which these resource plans are presented has been revised from the format used in FPL's prior Site Plans. The format change has been made to aid the reader in understanding what is included in each resource plan. As one views these resource plans, one should keep in mind that no final decisions are needed at this time, nor have any decisions been made, regarding many of the resource additions shown in the resource plans presented in this 2022 Site Plan. This is particularly relevant to resource additions shown for the years 2024 through 2031. Consequently, resource additions shown for these later years are more prone to change in the future.

Table ES-2 - Resource Additions/Subtractions in FPL's Recommended Plan

Year	Changes to Existing Generation	Retirements	New Generation Additions	Summer RM%
2022	NFRC Line, DBEC (1,267 MW) +107 MW CC Upgrades,	Scherer 4 (634 MW)	447 MW Solar*	25.7
2023	+119 MW CC Upgrades,	Shell PPA (885 MW)	745 MW Solar* 447 MW SolarTogether Extension*	22.9
2024	+114 MW CC Upgrades +15 MW OCEC Rotor Upgrade	Daniel 1&2 (502 MW)	894 MW SOBRA* 745 MW SolarTogether Extension*	22.6
2025	+87 MW CC Upgrades +29 MW OCEC Rotor Upgrade Convert GCEC 4&5, Lansing Smith A to Winter Only Operation	Pea Ridge (12 MW)	894 MW SOBRA* 596 MW SolarTogether Extension*	23.1
2026	-		596 MW Solar	22.1
2027	-	Broward South (4 MW)	596 MW Solar 3 x 100 MW Battery 4Hr	22.3
2028	-		745 MW Solar 4 x 100 MW Battery 4Hr	22.9
2029	-	Scherer 3 (215 MW)	894 MW Solar 9 x 100 MW Battery 4Hr	22.9
2030	-	Perdido 1&2 (3 MW)	894 MW Solar 6 x 100 MW Battery 4Hr	22.4
2031	-		969 MW Solar 2 x 500 MW Battery 4Hr Equivalent	22.6
	Nameplate Sol	9,462		
	Storaç	ge Additions (2022-2031):	3,200	

^{*} These solar facilities, including the 2022 and 2023 solar, and the 2023-2025 SolarTogether Extension, were approved in FPL's 2021 Rate Case Settlement. All other solar additions will be presented to the FPSC for approval of cost recovery at a later date once the specific sites and costs for these additions are finalized.

The Winter RM values for each plan is dependent on whether a P50 or Extreme Winter load forecast is used. This subject is discussed further in Chapters II and III

Table ES-3 – Resource Additions/Subtractions in FPL's Business as Usual Plan

Year	Changes to Existing Generation	Retirements	New Generation Additions	Summer RM%
2022	NFRC Line, DBEC (1,267 MW) +107 MW CC Upgrades,	Scherer 4 (634 MW)	447 MW Solar*	25.7
2023	+119 MW CC Upgrades,	Shell PPA (885 MW)	745 MW Solar* 447 MW SolarTogether Extension*	22.9
2024	+114 MW CC Upgrades +15 MW OCEC Rotor Upgrade	Daniel 1&2 (502 MW)	894 MW SOBRA* 745 MW SolarTogether Extension*	22.6
2025	+87 MW CC Upgrades +29 MW OCEC Rotor Upgrade	Pea Ridge (12 MW)	894 MW SOBRA* 596 MW SolarTogether Extension*	23.1
2026	-		596 MW Solar	22.1
2027		Broward South (4 MW)	596 MW Solar	21.4
2028			745 MW Solar	20.5
2029	-	Scherer 3 (215 MW)	894 MW Solar 5 x 100 MW Battery 4Hr	20.1
2030	-	Perdido 1&2 (3 MW)	894 MW Solar 7 x 100 MW Battery 4Hr	20.0
2031	-		894 MW Solar 6 x 100 MW Battery 4Hr	20.0
	Nameplate Sol	9,387		
	Stora	1,800		

^{*} These solar facilities, including the 2022 and 2023 solar, and the 2023-2025 SolarTogether Extension, were approved in FPL's 2021 Rate Case Settlement. All other solar additions will be presented to the FPSC for approval of cost recovery at a later date once the specific sites and costs for these additions are finalized.

The Winter RM values for each plan is dependent on whether a P50 or Extreme Winter load forecast is used. This subject is discussed further in Chapters II and III

Table ES-4 – Resource Additions/Subtractions in FPL's (FYI-Only) Resource
Plan with Tax Credits and Extreme Winter Load

Year	Changes to Existing Generation	Retirements	New Generation Additions	Summer RM%
2022	NFRC Line, DBEC (1,267 MW) +107 MW CC Upgrades,	Scherer 4 (634 MW)	447 MW Solar*	25.7
2023	+119 MW CC Upgrades,	Shell PPA (885 MW)	745 MW Solar* 447 MW SolarTogether Extension*	22.9
2024	+114 MW CC Upgrades +15 MW OCEC Rotor Upgrade	Daniel 1&2 (502 MW)	894 MW SOBRA* 745 MW SolarTogether Extension*	22.6
2025	+87 MW CC Upgrades +29 MW OCEC Rotor Upgrade Convert GCEC 4&5, Lansing Smith A to Winter Only Operation	Pea Ridge (12 MW)	894 MW SOBRA* 596 MW SolarTogether Extension* 1,491 MW Solar	24.7
2026	-		1,192 MW Solar	24.1
2027	1	Broward South (4 MW)	1,490 MW Solar 1 x 100 MW Battery 4Hr	23.5
2028	-		3,129 MW Solar 3 x 100 MW Battery 4Hr	23.5
2029	-	Scherer 3 (215 MW)	3,129 MW Solar 6 x 100 MW Battery 4Hr	23.1
2030	-	Perdido 1&2 (3 MW)	3,129 MW Solar 4 x 100 MW Battery 4Hr	22.9
2031	-		3,129 MW Solar 9 x 100 MW Battery 4Hr 2 x 500 MW Battery 4Hr Equivalent	25.5
Nameplate Solar Additions (2022-2031):			21,457	
Storage Additions (2022-2031):			3,300	

^{*} These solar facilities, including the 2022 and 2023 solar, and the 2023-2025 SolarTogether Extension, were approved in FPL's 2021 Rate Case Settlement. All other solar additions will be presented to the FPSC for approval of cost recovery at a later date once the specific sites and costs for these additions are finalized.

The Winter RM values for each plan is dependent on whether a P50 or Extreme Winter load forecast is used. This subject is discussed further in Chapters II and III

Table ES-5 – Resource Additions/Subtractions in FPL's (FYI-Only) Resource
Plan with Tax Credits and P50 Winter Load

Year	Changes to Existing Generation	Retirements	New Generation Additions	Summer RM%
2022	NFRC Line, DBEC (1,267 MW) +107 MW CC Upgrades,	Scherer 4 (634 MW)	447 MW Solar*	25.7
2023	+119 MW CC Upgrades,	Shell PPA (885 MW)	745 MW Solar* 447 MW SolarTogether Extension*	22.9
2024	+114 MW CC Upgrades +15 MW OCEC Rotor Upgrade	Daniel 1&2 (502 MW)	894 MW SOBRA* 745 MW SolarTogether Extension*	22.6
2025	+87 MW CC Upgrades +29 MW OCEC Rotor Upgrade	Pea Ridge (12 MW)	894 MW SOBRA* 596 MW SolarTogether Extension* 1,491 MW Solar	24.7
2026			1,192 MW Solar	24.1
2027		Broward South (4 MW)	2,533 MW Solar	23.4
2028			3,129 MW Solar	22.5
2029		Scherer 3 (215 MW)	3,129 MW Solar	20.3
2030		Perdido 1&2 (3 MW)	3,129 MW Solar 3 x 100 MW Battery 4Hr	20.0
2031			3,129 MW Solar 8 x 100 MW Battery 4Hr 4 x 500 MW Battery 4Hr Equivalent	24.7
	Nameplate So!	lar Additions (2022-2031):	22,500	
	Stora	ge Additions (2022-2031):	3,100	

^{*} These solar facilities, including the 2022 and 2023 solar, and the 2023-2025 SolarTogether Extension, were approved in FPL's 2021 Rate Case Settlement. All other solar additions will be presented to the FPSC for approval of cost recovery at a later date once the specific sites and costs for these additions are finalized.

The Winter RM values for each plan is dependent on whether a P50 or Extreme Winter load forecast is used. This subject is discussed further in Chapters II and III

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CHAPTER I

Description of Existing Resources



I. Description of Existing Resources

FPL and the former Gulf Power were legally merged into a single utility named Florida Power & Light Company on January 1, 2021, and effective January 1, 2022, Gulf Power was merged into FPL for ratemaking purposes. As a result, the two utility systems are now legally a single electric utility system, the FPL system¹². However, at the time this Site Plan is filed, the two systems are operating as two separate electric systems. The full consolidation of the two electric systems is scheduled to occur in mid-2022 upon completion of the new 161 kilovolt (kV) transmission line, the North Florida Resiliency Connection (NFRC) line, that is currently under construction. At that time, the two systems will begin operating as a single, integrated utility system. Schedule 1 in this chapter is designed to provide information about a utility's generation system as of December 31 of the previous year (i.e., 2021). For that reason, FPL has described the generating resources of the legacy FPL system and the former Gulf Power system separately in the 2022 Site Plan. Consequently, this chapter contains a separate section and Schedule 1 for the legacy FPL system and another section for the former Gulf Power system. FPL will consolidate all generation information into a single Schedule 1 in its 2023 Site Plan after the electrical integration of the two former systems is completed.

This chapter also contains a discussion of demand side management (DSM) activities. Because FPL received approval from the FPSC in 2021 to have an integrated DSM Plan for the former service areas of FPL and Gulf, the DSM discussion found in this chapter is for the single, integrated system.

I.A. FPL System:

I.A.1 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 5,214,263 customer accounts in 35 counties during 2021. 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 purchased power.

¹² The terms "FPL" and "Gulf" will be used occasionally in this document, particularly in Chapters I and II where certain required schedules must provide data for years preceding 2022. Elsewhere in the document, references to the former Gulf Power service area will typically be referred to as "NW Florida" to distinguish that portion of FPL's overall service area.

I.A.2 FPL - Owned Resources

As of December 31, 2021, FPL owned electric generating resources located at 61 sites distributed geographically throughout its service territory, plus one site in Georgia (partial FPL ownership of one unit)¹³. These generating facilities consisted of: four nuclear units, one coal unit (the aforementioned partially owned unit), 15 combined-cycle (CC) units, two fossil steam units, four gas turbines (GTs), nine simple-cycle combustion turbines (CTs), three battery storage units, and 41 solar photovoltaic (PV) facilities. ¹⁴ The locations of the 79 generating units that were in commercial operation on December 31, 2021 are shown on Figure I.A.2.1 and in Table I.A.2.1.

FPL's bulk transmission system, including both overhead and underground lines, is comprised of 7,492 circuit miles of transmission lines. Integration of the generation, transmission, and distribution systems is achieved through FPL's 696 substations in Florida.

The existing FPL system, including generating plants, major transmission stations, and transmission lines, is shown on Figure I.A.2.2.

¹³ This unit, Scherer Unit 4, was retired on January 1, 2022.

¹⁴ 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

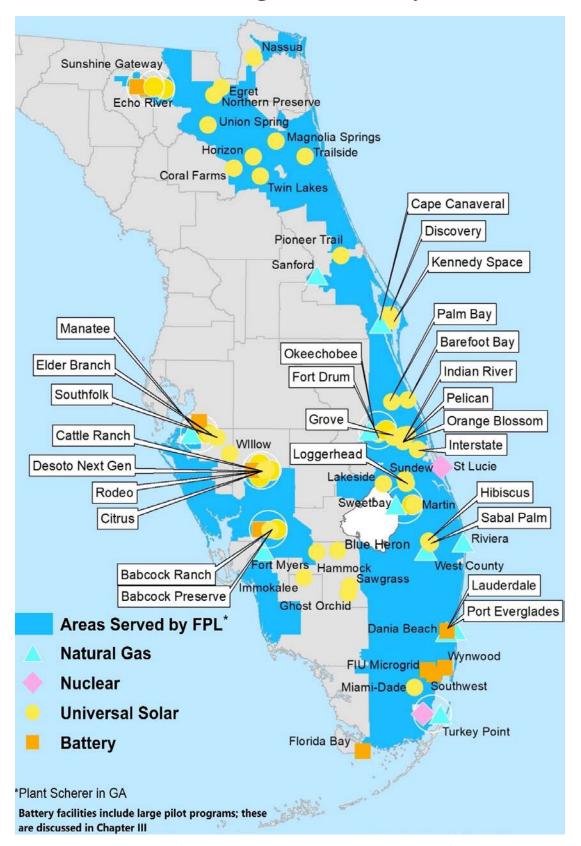


Figure I.A.2.1: FPL's Generating Resources by Location (as of December 31, 2021)

Table I.A.2.1: FPL's Capacity Resources by Unit Type (as of December 31, 2021)

Unit Type/ Plant Name	Location	Number of Units	<u>Fuel</u>	Page 1 of 2 Summer MW 4/
Muslage				
Nuclear St. Lucie 1/	St. Lucie County, FL	2	Nuclear	1,821
Turkey Point	Miami-Dade County, FL	2	Nuclear	1,681
Total Nuclear:	Wilding-Bade County, I E	4	Nuclear	3,502
Total Nuclear.		7		3,302
Coal Steam				
Scherer	Monroe County, Ga	1	Coal	634
Total Coal Steam:		1		634
Combined-Cycle				
Fort Myers	Lee County, FL	1	Gas	1,812
Manatee	Manatee County, FL	1	Gas	1,249
Sanford	Volusia County, FL	2	Gas	2,352
Cape Canaveral	Brevard County, FL	1	Gas/Oil	1,290
Martin 3/	Martin County, FL	3	Gas/Oil	2,209
Okeechobee	Okeechobee County, FL	1	Gas/Oil	1,720
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	Miami-Dade County, FL	1	Gas/Oil	1,270
West County	Palm Beach County, FL	3	Gas/Oil	3,777
Total Combined Cycle:		15		18,206
Gas/Oil Steam				
Manatee 2/	Manatee County, FL	2	Gas/Oil	0
Total Oil/Gas Steam:	•	2		0
Gas Turbines(GT)				
Fort Myers (GT)	Lee County, FL	2	Oil	108
Lauderdale (GT)	Broward County, FL	2	Gas/Oil	69
Total Gas Turbines/Diesels:		4		177
Combustion Turbines				
Lauderdale	Broward County, FL	5	Gas/Oil	1,155
Fort Myers	Lee County, FL	4	Gas/Oil	852
Total Combustion Turbines:		9		2,007
Battery Storage				
Manatee Battery Storage	Manatee County, FL	1	Storage	409
Sunshine Gateway Battery Storage	Columbia County, FL	1	Storage	30
Echo River Battery Storage	Suwannee County, FL	1	Storage	30
Total Battery Storage:		3		469

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

^{2/} Manatee Units 1 & 2 are Winter Peaking ONLY units. They will only be manned and operated during an Extreme Winter event in which additional capacity is needed to meet load.

^{3/} One of the Martin CC units (Martin 8) is also partially fueled by a 75 MW solar theramal facility that supplies steam when adequate sunlight is available, thus reducing fossil fuel use.

^{4/} This table shows the same Summer MW ratings for both the recommended Extreme Winter Case and the Business as Usual P50 Winter Case

Table I.A.2.1: FPL's Capacity Resources by Unit Type (as of December 31, 2021)

PV 5/ DeSoto Solar Babcock Ranch Solar Citrus Solar Planatee Solar Espace Coast Solar Interstate Solar Flami Dade Solar	DeSoto County, FL Charlotte County, FL DeSoto County, FL Manatee County, FL Brevard County, FL St. Lucie County, FL Miami-Dade County, FL	1 1 1 1	Solar Energy Solar Energy Solar Energy Solar Energy	MW ^{6/} 25 74.5
oleSoto Solar labcock Ranch Solar citrus Solar danatee Solar lpace Coast Solar otterstate Solar	Charlotte County, FL DeSoto County, FL Manatee County, FL Brevard County, FL St. Lucie County, FL	1 1 1	Solar Energy Solar Energy	74.5
abcock Ranch Solar Citrus Solar Manatee Solar Epace Coast Solar Iterstate Solar	Charlotte County, FL DeSoto County, FL Manatee County, FL Brevard County, FL St. Lucie County, FL	1 1 1	Solar Energy Solar Energy	74.5
Citrus Solar Manatee Solar Space Coast Solar Interstate Solar	DeSoto County, FL Manatee County, FL Brevard County, FL St. Lucie County, FL	1	Solar Energy	
Manatee Solar Space Coast Solar Interstate Solar	Manatee County, FL Brevard County, FL St. Lucie County, FL	1	•,	715
space Coast Solar nterstate Solar	Brevard County, FL St. Lucie County, FL	=	Solar Energy	74.5
nterstate Solar	St. Lucie County, FL	1	Colai Energy	74.5
	•		Solar Energy	10
/iami Dade Solar	Miami-Dade County FI	1	Solar Energy	74.5
	main Dado County, 1 2	1	Solar Energy	74.5
rioneer Trail Solar	Volusia County, FL	1	Solar Energy	74.5
Sunshine Gateway Solar	Columbia County, FL	1	Solar Energy	74.5
lorizon Solar	Alachua Countiy, FL	1	Solar Energy	74.5
Vildflower Solar	Desoto County, FL	1	Solar Energy	74.5
ndian River Solar	Indian River County, FL	1	Solar Energy	74.5
Coral Farms Solar	Putnam County, FL	1	Solar Energy	74.5
lammock Solar	Hendry County, FL	1	Solar Energy	74.5
arefoot Bay Solar	Brevard County, FL	1	Solar Energy	74.5
lue Cypress Solar	Indian River County, FL	1	Solar Energy	74.5
oggerhead Solar	St. Lucie County, FL	1	Solar Energy	74.5
labcock Preserve Solar	Charlotte County, FL	1	Solar Energy	74.5
lue Heron Solar	Hendry County, FL	1	Solar Energy	74.5
Cattle Ranch Solar	DeSoto County, FL	1	Solar Energy	74.5
cho River Solar	Suwannee County, FL	1	Solar Energy	74.5
gret Solar	Baker County, FL	1	Solar Energy	74.5
libiscus Solar	Palm Beach County, FL	1	Solar Energy	74.5
akeside Solar	Okeechobee County, FL	1	Solar Energy	74.5
lassau Solar	Nassau County, FL	1	Solar Energy	74.5
lorthern Preserve Solar	Baker County, FL	1	Solar Energy	74.5
Okeechobee Solar	Okeechobee County, FL	1	Solar Energy	74.5
Southfork Solar	Manatee County, FL	1	Solar Energy	74.5
Sweetbay Solar	Martin County, FL	1	Solar Energy	74.5
railside Solar	St. Johns County, FL	1	Solar Energy	74.5
win Lakes Solar	Putnam County, FL	1	Solar Energy	74.5
Inion Springs Solar	Union County, FL	1	Solar Energy	74.5
/agnolia Springs Solar	Clay County, FL	1	Solar Energy	74.5
Pelican Solar	St. Lucie County, FL	1	Solar Energy	74.5
alm Bay Solar	Brevard County, FL	1	Solar Energy	74.5
Rodeo Solar	DeSoto County, FL	1	Solar Energy	74.5
Discovery Solar	Brevard County, FL	1	Solar Energy	74.5
Orange Blossom Solar	Indian River County, FL	1	Solar Energy	74.5
Sabal Palm Solar	Palm Beach County, FL	1	Solar Energy	74.5
ort Drum Solar	Okeechobee County, FL	1	Solar Energy	74.5
Villow Solar	Manatee County, FL	1	Solar Energy	74.5
Total Namep		41		2,941
	- .	Units: 79		

Nameplate System Generation as of December 31, 2021 = 27,935 Firm System Generation as of December 31, 2021 = 26,475

^{5/} The solar capacity values shown are nameplate capacity only, not firm capacity.

Information on Summer and Winter Firm capacity for solar units is provided in Schedule 1.

^{6/} This table shows the same Summer MW ratings for both the recommended Extreme Winter Case and the Business as Usual P50 Winter Case

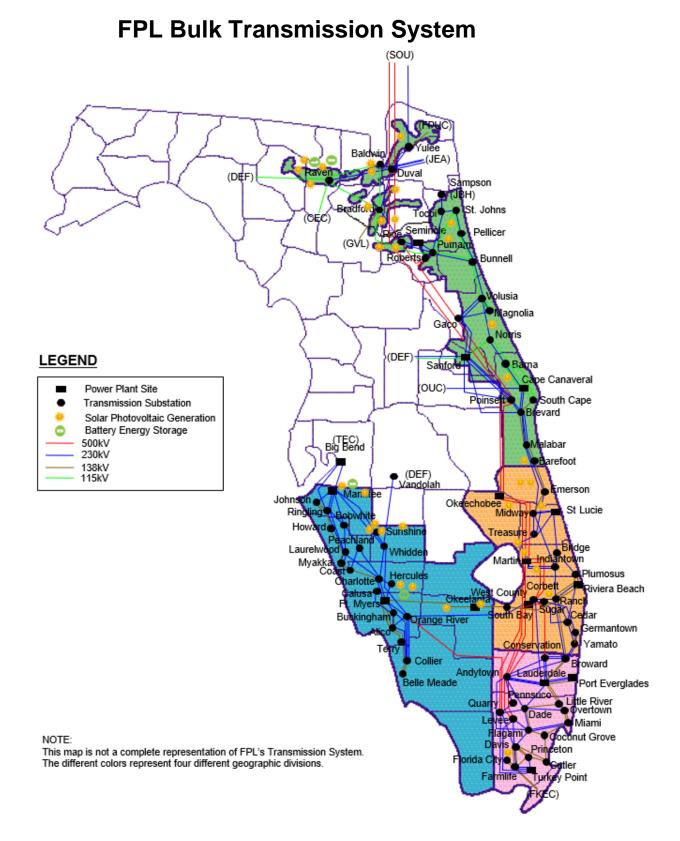


Figure I.A.2.2: FPL Bulk Transmission System

I.A.3 FPL - 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 three qualifying facilities contracts, each with Broward South, to purchase firm capacity and energy during the 10-year reporting period of this Site Plan. The 2021 actual and 2022-2031 projected contributions from these facilities are shown in Table I.A.3.1, Table I.A.3.2, and Table I.A.3.3.

Firm Capacity: Purchases from Utilities

FPL entered into two firm capacity purchase contracts for the Winter of 2021-2022. These are the 160 MW Exelon Generation contract and the 310 MW Rainbow Energy contract. These contracts began December 31, 2021 and terminated on February 28, 2022.

Firm Capacity: Other Purchases

FPL has two other firm capacity purchase contracts with the Palm Beach Solid Waste Authority. Table I.A.3.2 and I.A.3.3 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 cogeneration and small power production facilities. The lower half of Table I.A.3.1 shows the amount of energy purchased in 2021 from these facilities along with the amount of energy purchased from customer-sited generation.

Table I.A.3.1: FPL's Purchased Power Resources by Contract (as of December 31, 2021)

Firm Capacity Purchases (MW)	Location		Summer
	(City or County)	Fuel	MW
I. Purchase from QF's: Cogeneration/Small Power Production Facilities			
Broward South Landfill (firm)	Broward	Solid Waste	3.5
		Total:	3.5
II. Purchases from Utilities & IPP			
Palm Beach SWA - REF 1	Palm Beach	Solid Waste	40
Palm Beach SWA - REF 2	Palm Beach	Solid Waste	70
		Total:	110
т	otal Net Firm Gene	erating Capability:	114

Non-Firm Energy Purchases (MWH)			
			Energy (MWH)
			Delivered to FPL
Project	County	Fuel	in 2021
Miami Dade Resource Recovery 1/	Dade	Solid Waste	30,976
Broward South Landfill (as-available) 1/	Broward	Solid Waste	56,087
Lee County Solid Waste ^{1/}	Lee	Solid Waste	29,868
Energy Power Partners - Brevard Landfill 1/	Brevard	Landfill Gas	39,143
Florida Crystals - Okeelanta 1/	Palm Beach	Bagasse/Wood	36,912
Waste Management Renewable Energy - Collier Landfill 1/	Collier	Landfill Gas	601
Energy Power Partners - Seminole Landfill 1/	Seminole	Landfill Gas	19,174
Tropicana - Bradenton	Manatee	Natural Gas	8,003
Georgia Pacific Palatka Mill	Putnam	Paper by-product	6,768
Aria Energy - Sarasota Landfill 1/	Sarasota	Landfill Gas	1,537
Waste Management Renewable Energy - Broward Landfill 1/	Broward	Landfill Gas	2,107
Fortistar - Charlotte Landfill 1/	Charlotte	Landfill Gas	1
Customer Owned PV & Wind 1/	Various	PV/Wind	172,075
Total Energy from Renewable Non-Fi	irm Purchases Deliver	ed to FPL in 2021 $^{1/}$:	388,480
Total Energy from All Non-	-Firm Purchases Deliv	ered to FPL in 2021:	403,251

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

Table I.A.3.2: 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

	3.5	3.5	3.5	3.5	3.5	0	0	0		0		
Utility Purchases Subtotal:				0	0	0	0	0	0	0	0	0
None	-	-	-	-	-	-	-	-	-	-	-	-
	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
II. Purchases from Utilities		•										
	ses Subtotal:	3.5	3.5	3.5	3.5	3.5	0	0	0	0	0	
Broward South Landfill	01/01/97	12/31/26	0.6	0.6	0.6	0.6	0.6	0	0	0	0	0
Broward South Landfill	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	0	0	0	0	0
Broward South Landfill	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	0	0	0	0	0
Cogeneration Small Power Production Facilities	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

III. Other Purchases

	Total "Non-QF	" Purchases =	110	110	110	110	110	110	110	110	110	110
	Other Purchases Subtotal:			110	110	110	110	110	110	110	110	110
Palm Beach SWA - REF2	07/16/15	06/01/34	70	70	70	70	70	70	70	70	70	70
Palm Beach SWA - REF1 1/	01/01/13	04/01/32	40	40	40	40	40	40	40	40	40	40
Rainbow Energy - Oleander	01/01/22	02/28/22	0	0	0	0	0	0	0	0	0	0
Exelon - Hillabee	01/01/22	02/28/22	0	0	0	0	0	0	0	0	0	0
	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Summer Firm Capacity Purchases Total MW:	114	114	114	114	114	110	110	110	110	110

^{1/} 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 🗆 these became accounted for under "Other Purchases".

Table I.A.3.3: 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	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Broward South Landfill	01/01/93	12/31/26	1.4	1.4	1.4	1.4	1.4	0	0	0	0	0
Broward South Landfill	01/01/95	12/31/26	1.5	1.5	1.5	1.5	1.5	0	0	0	0	0
Broward South Landfill	01/01/97	12/31/26	0.6	0.6	0.6	0.6	0.6	0	0	0	0	0
QF Purchases Subtotal:			3.5	3.5	3.5	3.5	3.5	0	0	0	0	0

II. Purchases from Utilities

m : u: o::u:oco :: o::: o::::uo												
	Contract	Contract	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Start Date	End Date	2022	2023	2024	2025	2020	2021	2026	2029	2030	2031
None	-	-	•			-			•	-	•	-
Utility Purchases Subtotal:				0	0	0	0	0	0	0	0	0

Total of QF and Utility Purchases =	3.5	3.5	3.5	3.5	3.5	0	0	0	0	0

III. Other Purchases

	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Exelon - Hillabee	01/01/22	02/28/22	160	0	0	0	0	0	0	0	0	0
Rainbow Energy - Oleander	01/01/22	02/28/22	320	0	0	0	0	0	0	0	0	0
Palm Beach SWA - REF1 1/	01/01/13	04/01/32	40	40	40	40	40	40	40	40	40	40
Palm Beach SWA - REF2	07/16/15	06/01/34	70	70	70	70	70	70	70	70	70	70
	Other Purchases Subtotal:			110	110	110	110	110	110	110	110	110

Total "Non-QF" Purchases =	590	110	110	110	110	110	110	110	110	110

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Winter Firm Capacity Purchases Total MW:	594	114	114	114	114	110	110	110	110	110

^{1/} 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 these became accounted for under "Other Purchases".

I.A.4 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 innovative conservation/energy efficiency and load management initiatives. With FPL's legal merger with Gulf Power in 2021, the integrated company's DSM efforts through 2021 have resulted in a cumulative Summer peak reduction of 5,489 MW at the generator and an estimated cumulative energy savings of 95,489 Gigawatt-Hours (GWh) at the generator. After accounting for the 20% total reserve margin requirement, FPL's highly effective DSM efforts through 2021 have eliminated the need to construct the equivalent of approximately sixty-six (66) new 100 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 by using the Rate Impact Measure (RIM) cost-effectiveness screening calculation approach.

In 2019, the Florida Public Service Commission (FPSC) set DSM Goals for the years 2020 through 2024 for FPL, Gulf, and the other Florida utilities subject to the Florida Energy Efficiency and Conservation Act (FEECA). These DSM Goals addressed utility programs that lower system peak load and annual energy use and are identical to the Goals set by the FPSC in 2014. In August 2021, FPL submitted an Integrated DSM Plan as part of the consolidation and unification of base rates of FPL and Gulf. In November 2021, the FPSC approved FPL's Integrated DSM Plan, and FPL intends to meet the combined DSM goals of FPL and Gulf set forth in Order No. PSC-2021-0421-PAA-EG.

In this Site Plan, FPL assumes that the FPL and Gulf annual reduction values for Summer MW, Winter MW, and energy (MWh) set forth in the DSM Goals order for 2022 through 2024 (Order No. PSC-2019-0509-FOF-EG) will be met as shown in various schedules presented in this Site Plan. For the years 2025 through 2029, for which the FPSC did not establish Goals, FPL has assumed that DSM will be implemented to achieve the DSM levels that FPL and Gulf proposed in the 2019 DSM Goals filing because this level of annual DSM was projected to be cost-effective. Incremental DSM amounts for the years 2030 and 2031 for FPL and Gulf, commensurate with the utility's projected DSM annual additions for 2025 through 2029, have been assumed as well.

I.A.5 Utility Demand Side Management – A Look Ahead

The term "demand side management" refers to utility activities that alter the demand for electricity that would otherwise occur without the activities. In the past, the term has typically been used almost exclusively in discussions of energy conservation and demand response activities, i.e., activities that reduce energy consumption at the utility's peak load hour and/or reduce energy consumption over the course of the entire year. However, the term also applies to activities that have other impacts on customers' demand for electricity including activities that can increase energy consumption at the utility's peak load hour and/or increase annual energy consumption.

In regard to DSM activities that reduce peak load and/or annual energy consumption, the Executive Summary of this Site Plan discusses the fact that there has been a trend over the last 10 years of steady declines in the projected future cost of fuel, plus steady increases in the efficiency with which generating units use fuel to produce electricity. These trends are very beneficial to utility customers because they help to keep electric rates low. However, these lower costs and increased fuel efficiency also lower costs that can potentially be avoided by utility energy conservation programs whose objective is to reduce annual energy consumption and fuel usage. This automatically lowers the cost-effectiveness of these types of utility DSM programs.

In addition, new types of activities are emerging that alter current electricity demand patterns. As such, these new activities are a "next generation" of demand side management activities. Examples of these include, but are not limited to, steady increases in electric vehicle (EV) usage and the emergence of behind-the-meter batteries. Both of these activities utilize battery storage during various hours of the day, thus increasing electrical demand during the hours the storage equipment is being charged from the utility's system. Furthermore, behind-the-meter batteries will also result in the stored energy being used (discharged) at other hours of the day thus reducing what would otherwise have been demand for electricity supplied at that time by the utility system.

Accordingly, FPL's approach to DSM has expanded to include activities such as these. FPL is putting considerable effort into these next generation DSM activities as described in Chapter III, Section III.F. of this Site Plan.

I.A.6 Existing Generating Units in FPL's Original Service Area

Schedule 1 presents the generating capacity in FPL's original service area as of December 31, 2021.

															F	Page 1 of 3
				- FDI	Federal Control		dule 1									
				FPL	As of	ng Ger Decen	nerating I nber 31, 2	-acilities 2021								
(1)	(2)	(3)	(4)	(5)	(6)	(7) (8 Fuel) (9) Alt. Fuel	(10) Commercial	(11) Actual/ Expected	(12) Gen.Max.	(13)	(13a) Net Capability 1/	(14)	(15)	(15a) Firm Capability ²	(16)
Plant Name Babcock Preserve Solar 2/		_ocation	Unit Type	Pri.	uel <u>Alt.</u>	Transpo Pri. All	rt Days	In-Service Month/Year	Retirement Month/Year		Winter MW	Extreme Winter MW	Summer <u>MW</u>	Winter MW	Extreme Winter MW	Summer <u>MW</u>
Bascock Troceive Com		S/26E : 4/42S/26E	PV	Solar	Solar	N/A N/A	A Unknown	Mar-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.98 1.98	<u>1.98</u> 1.98	36.1 36.1
Babcock Ranch Solar 2/		lotte County ,32/41S/26E	PV	Solar	Solar	N/A N/A	A Unknown	Dec-16	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.94 1.94	<u>1.94</u> 1.94	38.6 38.6
Barefoot Bay Solar 2/	Bre 1, 10,	/ard County 15,16/30S/38E							GINIOWII	74,500	74.5	<u>74.5</u>	74.5	2.26	2.26	41.6
Blue Oypress Solar 2/		River County 5/33S/38E	PV	Solar	Solar	N/A N/	A Unknown	Mar-18	Unknow n	74,500 74,500	74.5	74.5 <u>74.5</u>	74.5	2.26	2.26 2.64	41.6 35.1
Blue Heron Solar 2/	1 Hen	dry County	PV	Solar	Solar	N/A N/A	A Unknown	Mar-18	Unknow n	74,500	74.5	74.5	74.5	2.64	2.64	35.1
Cape Canaveral	1	33/43S/32E vard County	PV	Solar	Solar	N/A N/	A Unknown	Mar-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	2.80 2.80	<u>2.80</u> 2.80	33.6 33.6
	3	9/23S/36E	cc	NG	FO2	PL TI	C Unknow n	Apr-13	Unknow n	1,331,100 1,331,100	1,393 1,393	<u>1,409</u> 1,409	1,290 1,290	1,393 1,393	1,409 1,409	1,290 1,290
Cattle Ranch Solar 2/		oto County 1,25/36S/26E	PV	Solar	Solar	N/A N/	A Unknown	Mar-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.50 1.50	<u>1.50</u> 1.50	34.8 34.8
Citrus Solar 2/		Soto County 25E: 2/37S/25E	PV	Solar	Solar	N/A N/A	A Unknown	Dec-16	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	2.08 2.08	2.08 2.08	41.9 41.9
Coral Farms Solar 2/		nam County ,33,34/8S/24E	PV	Solar	Solar	N/A N/A	A Unknown	Jan-18	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.21 1.21	<u>1.21</u> 1.21	40.2 40.2
DeSoto Solar 2/		Soto County 7/36S/25E	PV	Solar	Solar	N/A N/A	A Unknown	Oct-09	Unknow n	22,950 22,950	<u>25</u> 25	<u>25</u> 25	<u>25</u> 25	<u>0.75</u> 0.75	<u>0.7</u> 0.75	<u>11</u> 11
Discovery Solar 2/	Bre- 25,35,3	ard County 86/22S/36E								74,500	74.5	<u>74.5</u>	74.5	1.02	1.02	36.0
Echo River Battery Storage		nnee County S/14E: 30/2S/15	PV E	Solar	Solar	N/A N/	A Unknown	Jul-21	Unknow n	74,500 30,000	74.5 30.0	74.5 30.0	74.5 30.0	30.0	1.02 <u>30.0</u>	36 30.0
Echo River Solar 2/		nnee County S/14E: 30/2S/15	BS	N/A	N/A	N/A N/	A Unknown	Dec-21	Unknow n	30,000 74,500	30.0 74.5	30.0 <u>74.5</u>	30.0 74.5	30.0	30.0	30.0 47.5
Egret Solar 2/	1 Ba	ker County	PV	Solar	Solar	N/A N/	A Unknown	May-20	Unknow n	74,500	74.5	74.5	74.5	0.80	0.80	47.5
Fort Drum Solar 2/	1	,27/2S/21E	PV	Solar	Solar	N/A N/	A Unknown	Dec-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	0.86 0.86	<u>0.86</u> 0.86	35.2 35.2
	2,11,13	3/33S/35E	PV	Solar	Solar	N/A N/	A Unknown	Aug-21	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.54 1.54	<u>1.54</u> 1.54	36.0 36.0
Fort Myers		ee County 5/43S/25E	CC CT	NG NG	No FO2		Unknow n		Unknow n Unknow n	2,823,888 1,836,798 863,090	2,762 1,787 852	2,764 1,787 854	2,772 1,812 852	2,762 1,787 852	2,764 1,787 854	2,772 1,812 852
Hammock Solar 2 ^f		dry County :: 3,4,9,10/44\$/3		FO2 Solar	No Solar		Unknown		Unknow n Unknow n	124,000 <u>74,500</u> 74,500	74.5 74.5	123 <u>74.5</u> 74.5	74.5 74.5	123 2.41 2.41	123 <u>2.41</u> 2.41	108 34.8 34.8
Hibiscus Solar 2/		Beach County /43S/40E	PV	Solar	Solar	N/A N/A	A Unknown	May-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	2.95 2.95	2.95 2.95	40.5 40.5
Horizon Solar 2/		hua County 22E: 30, 31/9S/2		Solar	Solar	N/A N/A	A Unknown	Jan-18	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.12 1.12	<u>1.12</u> 1.12	40.2 40.2
Indian River Solar 2/		River County 0/33S/38E	PV	Solar	Solar	N/A N/A	A Unknown	Jan-18	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	<u>0.0</u> 0.0	<u>0.0</u> 0.0	39.8 39.8
Interstate Solar 2/	St. L	ucie County 33/34S/39E		Solar			A Unknown		Unknow n	74,500 74,500	74.5 74.5	74.5 74.5	74.5 74.5	2.96 2.96	2.96 2.96	39.5 39.5
				-		•		-					-			-

^{1/} These ratings are peak capability ratings for non-Solar units and Nameplate ratings for Solar units.
2/ These projected firm MW values represent the contribution of both non-solar and solar facilities at Summer and Winter Peak

Schedule 1

FPL Existing Generating Facilities

				FPI				rating F er 31, 2	acilities 021								
(1)	(2)	(3)	(4)	(5)	(6)		(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(15a)	(16)
								Alt.		Actual/							
	Unit		Unit		Fuel	Tran	uel Isport	Fuel Days	Commercial In-Service	Expected Retirement	Gen.Max. Nameplate	Winter	Net Capability 1/ Extreme Winter	Summer	Winter I	Firm Capability Extreme Winter	Summer
Plant Name	No.		Type	Pri.	Alt.		Alt.	Use	Month/Year	Month/Year	KW	MW	<u>MW</u>	MW	MW	<u>MW</u>	MW
Lakeside Solar 2/		Okeechobee County 28,29,32/37S/36E									74,500	74.5	74.5	74.5	1.20	1.20	36.2
	1		PV	Solar	Solar	N/A	N/A	Unknow n	Dec-20	Unknow n	74,500	74.5	74.5	74.5	1.20	1.20	36.2
Lauderdale		Brow ard County															
	6	30/50S/42E	СТ	NG	FO2	PL	TK	Unknow n	Dec-16	Unknow n	1,215,956 1,147,500	1,198 1,125	<u>1,198</u> 1,125	1,224 1,155	1,198 1,125	<u>1,198</u> 1,125	1,224 1,155
	3, 5		GT	NG	FO2	PL		Unknow n	Aug-70	Unknow n	68,456	73	73	69	73	73	69
Loggerhead Solar 2/		St. Lucie County 21/37S/38E									74.500	74.5	74.5	74.5	2.67	2.67	35.8
	1		PV	Solar	Solar	N/A	N/A	Unknow n	Mar-18	Unknow n	74,500	74.5	74.5	74.5	2.67	2.67	35.8
Magnolia Springs Solar 2/		Clay County 15,16,21,22/7S/26E									74.500	74.5	74.5	74.5	1.10	1.10	36.0
	1	., ., ,	PV	Solar	Solar	N/A	N/A	Unknow n	Apr-21	Unknow n	74,500	74.5	74.5	74.5	1.10	1.10	36
Manatee Battery Storage	1.12.1	Manatee County 3,24/33S/19E: 18,19/33S	S/20E								409,000	409.0	409.0	409.0	409.0	409.0	409.0
	1	.,	BS	N/A	N/A	N/A	N/A	Unknow n	Dec-21	Unknow n	409,000	409.0	409.0	409.0	409.0	409.0	409.0
Manatee Solar 2/	1.12.1	Manatee County 3,24/33S/19E: 18,19/33S	S/20F								74.500	74.5	74.5	74.5	1.62	1.62	41.7
	1	-,	PV	Solar	Solar	N/A	N/A	Unknow n	Dec-16	Unknow n	74,500	74.5	74.5	74.5	1.62	1.62	41.7
Manatee		Manatee County 18/33S/20E									3.027.982	2.903	2.903	1.249	2.903	2.903	1.249
	1 3/		ST	NG	F06	PL	WA	Unknow n	Oct-76	4th Q 2021	863,300	819	819	0	819	819	0
	2 ^{3/}		ST	NG NG	FO6 No	PL PL		Unknow n Unknow n	Dec-77 Jun-05	4th Q 2021 Unknow n	863,300	819 1,265	819 1,265	0 1,249	819 1,265	819 1,265	0 1,249
	3		u	NG	NO	HL.	NO	Unknown	Jun-05	UNKNOWN	1,301,382	1,200	1,205	1,249	1,200	1,200	1,249
Martin		Martin County															
	3	30/39S/38E	СС	NG	No	PL	No	Unknow n	Feb-94	Unknown	2,525,382 612,000	2,337 533	<u>2,371</u> 550	2,209 487	2,337 533	2,371 550	2,209 487
	4		CC	NG	No	PL		Unknow n	Apr-94	Unknow n	612,000	533	550	487	533	550	487
	8 4/		CC	NG	FO2	PL	TK	Unknow n	Jun-05	Unknow n	1,301,382	1,271	1,271	1,235	1,271	1,271	1,235
Miami Dade Solar 2/		Miami-Dade County															
Mani Dade Solai		13/55S/38E									74.500	74.5	74.5	74.5	3.47	<u>3.47</u>	39.2
	1		PV	Solar	Solar	N/A	N/A	Unknow n	Jan-19	Unknow n	74,500	74.5	74.5	74.5	3.47	3.47	39.2
Nassau Solar 2/		Nassau County															
		2/1N/24E									74.500	74.5	74.5	74.5	0.59	0.59	34.7
	1		PV	Solar	Solar	N/A	N/A	Unknow n	Dec-20	Unknow n	74,500	74.5	74.5	74.5	0.59	0.59	34.7
Northern Preserve Solar 2/		Baker County															
	1	3,18/3S/20E: 24/3S/21E	PV	Solar	Solar	NI/A	NI/A	Unknow n	Mar-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	0.52 0.52	0.52 0.52	33.0 33.0
			rv	Julai	Solai	IWA	IVA	OHKHOWH	IVall*20	Olkiowii	74,300	74.5	74.5	74.5	0.52	0.32	33.0
Okeechobee		Okeechobee															
	1	2/33S/35E	СС	NG	FO2	ы	TΙΖ	Unknow n	Mar-19	Unknown	1.886.150 1.886.150	1,672 1,672	<u>1.667</u> 1.667	1,720 1,720	1.672 1.672	<u>1.667</u> 1.667	1.720 1,720
			00	ING	FUZ	FL	IK	OHKHOWH	ivai-19	Olkiowii	1,000,130	1,072	1,007	1,720	1,072	1,007	1,720
Okeechobee Solar 2/		Okeechobee County															
	1	1,12,13/33S/35E	PV	Solar	Solar	N/Δ	N/Δ	Unknow n	May-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	2.34 2.34	2.34 2.34	36.6 36.6
	·			Colui	Coldi			Omaiow ii	May 20	GINGIOWII	74,000	74.0	7 1.0	14.0	2.01	2.07	00.0
Orange Blossom Solar 2/		Indian River County															
	1	19/33S/38E	PV	Solar	Solar	N/A	N/A	Unknow n	Jul-21	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.25 1.25	<u>1.25</u> 1.25	36.0 36
Palm Bay Solar 2/		Brevard County 19,30/30S/37E									74.500	74.5	74.5	745	0.05	0.05	20.0
	1	19,30/305/37E	PV	Solar	Solar	N/A	N/A	Unknow n	May-21	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	0.85 0.85	0.85 0.85	36.0 36
Pioneer Trail Solar 3/		Volusia County 21/17S/32E									74.500	74.5	74.5	74.5	1.76	1.76	38.4
	1	21/173/32E	PV	Solar	Solar	N/A	N/A	Unknow n	Jan-19	Unknow n	74,500	74.5	74.5	74.5	1.76	1.76	38.4
Pelican Solar 2/		St. Lucie County 6,7/34S/38E									74.500	74.5	<u>74.5</u>	74.5	1.25	1.25	36.0
	1	0,77543730E	PV	Solar	Solar	N/A	N/A	Unknow n	Apr-21	Unknow n	74,500	74.5	74.5 74.5	74.5	1.25	1.25	36
Port Everglades		City of Hollywood 23/50S/42E									1,412,700	1,333	1,353	1,237	1,333	1,353	1,237
	5		CC	NG	FO2	PL	TK	Unknow n	Apr-16	Unknow n	1,412,700	1,333	1,353	1,237	1,333	1,353	1,237
Distance 2		Contract Date in Co.															
Riviera Beach		City of Riviera Beach 33/42S/432E									1,331,100	1,381	1,408	1,290	1,381	1,408	1,290
	5		СС	NG	FO2	PL	TK	Unknow n	Apr-14	Unknow n	1,331,100	1,381	1,408	1,290	1,381	1,408	1,290

^{1/} These ratings are peak capability ratings for non-Solar units and Nameplate ratings for Solar units.

^{2/} These projected firm M/V values represent the contribution of both non-solar and solar facilities at Summer and Winter Peak.

3/ Manatee Units 1 & 2 are Winter Peaking ONLY units. They will only be manned and operated during an Extreme Winter event in which additional capacity is needed to meet load.

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.

Schedule 1 FPL Existing Generating Facilities

						FP	L Existing As of	ng Generat December	ing Faciliti 31, 2021	es						
(1)	(2) (3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(13a)	(14)	(15)	(15a)	(16)
							Alt.		Actual/						2/	
	Unit	Unit	Fuel	Т	Fue ranspo		Fuel Davs	Commercial In-Service	Expected Retirement	Gen.Max Nameplate	Winter	Net Capability 1/ Extreme Winter	Summer	Winter	Firm Capability 2/ Extreme Winter	Summer
Plant Name	No. Location	Type	Pri.	Alt.	Pri.		Use	Month/Year	Month/Year	KW	MW	MW	MW	MW	<u>MW</u>	MW
Rodeo Solar 2/	DeSoto County	_								74 500	74.5	74.5	74.5	1.54	154	26.0
	23,24,25,26,27/36S/25E	PV PV	Solar	Solar	N/A N	√A.	Unknow n	May-21	Unknow n	74,500 74,500	74.5	<u>74.5</u> 74.5	74.5 74.5	1.54 1.54	<u>1.54</u> 1.54	36.0 36
								.,								
Sabal Palm Solar 2/	Palm Beach County															
	33/42S/40E	PV	0-1	0-1	N/A N	1/ 6	I laterania	h 04	University	74,500	74.5	<u>74.5</u>	74.5	1.57 1.57	<u>1.57</u>	36.0 36
	1	PV	Solar	Solar	IVA I	WA.	Unknow n	Jun-21	Unknow n	74,500	74.5	74.5	74.5	1.57	1.57	30
Sanford	Volusia County															
	16/19S/30E									2,531,464	2,376	2,376	2,352	2,376	2,376	2,352
	4 5	CC	NG NG	No No			Unknow n Unknow n	Oct-03 Jun-02	Unknow n	1,265,732 1,265,732	1,188	1,188 1,188	1,176	1,188 1,188	1,188 1.188	1,176 1,176
	5	u	NG	NO	PL	NO	Unknown	Jun-02	Unknow n	1,200,732	1,188	1,100	1,176	1,100	1,100	1,176
Scherer 5/	Monroe, GA									680,368	635	635	634	635	635	634
	4	ST	SUB	No	RR	No	Unknow n	Jul-89	1st Q 2022	680,368	635	635	634	635	635	634
0 44 10 1 2																
Southfork Solar 2/	Manatee County 26/33S/21E									74,500	74.5	74.5	74.5	1.83	1.83	45.0
	1	PV	Solar	Solar	N/A I	VΑ	Unknow n	May-20	Unknow n	74,500	74.5	74.5	74.5	1.83	1.83	45.0
Space Coast Solar 2/	Brevard County															
	13/23S/36E 1	PV	Solar	Solar	N/A N	UΔ	Unknow n	Apr-10	Unknow n	10,000 10,000	<u>10</u> 10	<u>10</u> 10	<u>10</u> 10	0.14 0.14	<u>0.14</u> 0.14	<u>4</u> 4
	1	FV	Julai	Julai	IWA I	W/A	OHNIOWH	Apr-10	OHMHOWH	10,000	10	10	10	0.14	0.14	+
St. Lucie 6/	St. Lucie County															
	16/36S/41E									1,999,128	1,863	<u>1,863</u>	1,821	1,863	<u>1,863</u>	1,821
	1 2	ST ST	Nuc Nuc	No No			Unknow n Unknow n	May-76 Jun-83	Unknow n Unknow n	1,080,000 919,128	1,003 860	1,003 860	981 840	1,003 860	1,003 860	981 840
	2	31	INUC	NO	IK	INO	OHNIOWH	Juli-03	UIKIOWII	919,120	800	800	040	860	800	040
Sunshine Gateway Battery Storage	Columbia County															
	25,26,35,36/2S/15E: 31,32/5S									30,000	30.0	30.0	30.0	30.0	<u>30.0</u>	30.0
	1	BS	N/A	N/A	N/A I	WA	Unknow n	Dec-21	Unknow n	30,000	30.0	30.0	30.0	30.0	30.0	30.0
Sunshine Gatew ay Solar 2/	Columbia County															
	25,26,35,36/2S/15E: 31,32/5S	S/16E								74,500	74.5	<u>74.5</u>	74.5	0.95	<u>0.95</u>	41.7
	1	PV	Solar	Solar	N/A N	√A	Unknow n	Jan-19	Unknow n	74,500	74.5	74.5	74.5	0.95	0.95	41.7
0 1 0 1 2/																
Sw eetbay Solar 2/	Martin County 17,19/39S/39E									74,500	74.5	74.5	74.5	2.34	2.34	28.1
	1	PV	Solar	Solar	N/A N	VA	Unknow n	Mar-20	Unknow n	74,500	74.5	74.5	74.5	2.34	2.34	28.1
Trailside Solar 2/	St. Johns County															
	25,36/8S/28E 1	PV	Solar	Solar	N/A N	VA.	Unknow n	Dec-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	1.06 1.06	<u>1.06</u> 1.06	39.0 39.0
	•		Coldi	Colui		•	Omatow ii	200 20	Olivaiow II	7 1,000	1-1.0	7 1.0	14.0	1.00	1.00	00.0
Turkey Point	Mami Dade County															
	27/57S/40E									3,055,782	3,036	3,036	2,951	3,036	3,036	2,951
	3	ST	Nuc Nuc	No No			Unknow n Unknow n	Nov-72 Jun-73	Unknow n Unknow n	877,200 877,200	859 866	859 866	837 844	859 866	859 866	837 844
	5	CC	NG	FO2			Unknow n	May-07	Unknow n	1,301,382	1,311	1,311	1,270	1,311	1,311	1,270
Tw in Lakes Solar 2/	Putnam County															
	19,20,25/10S/24E: 30/10S/2	25E PV	Solar	Solar	N/A N	J/Δ	Unknow n	Mar-20	Unknow n	74,500 74,500	74.5 74.5	<u>74.5</u> 74.5	74.5 74.5	0.97 0.97	<u>0.97</u> 0.97	34.8 34.8
	·									,===						
Union Springs Solar 2/	Union County															
	3,4,9,10/6S/20E: 33/5S/20									74,500	74.5	74.5	74.5	0.85	0.85	37.6
	1	PV	Solar	Solar	N/A r	VA.	Unknow n	Dec-20	Unknow n	74,500	74.5	74.5	74.5	0.85	0.85	37.6
West County	Palm Beach County															
	29/43S/40E									4,100,400	4,107	4,098	3,777	4,107	4,098	3,777
	1	CC	NG				Unknow n	Aug-09	Unknow n	1,366,800	1,369	1,366	1,259	1,369	1,366	1,259
	2	CC	NG NG	FO2			Unknow n Unknow n	Nov-09 May-11	Unknow n Unknow n	1,366,800 1,366,800	1,369 1,369	1,366 1,366	1,259 1,259	1,369 1,369	1,366 1,366	1,259 1,259
	-	00		. 02				,	3111101111	.,000,000	1,000	1,000	1,200	.,000	1,000	1,200
Wildflow er Solar 2/	Desoto County															
	25,26,/36S/25E									74,500	74.5	<u>74.5</u>	74.5	0.0	0.0	41.0
	1	PV	Solar	Solar	N/A N	√A.	Unknow n	Jan-18	Unknow n	74,500	74.5	74.5	74.5	0.0	0.0	41.0
Willow Solar 2/	Manatee County															
	2,3,10,11/35S/22E									74,500	74.5	74.5	74.5	0.85	0.85	36.0
	1	PV	Solar	Solar	N/A N	VA	Unknow n	Jul-21	Unknow n	74,500	74.5	74.5	74.5	0.85	0.85	36
		Total	Nam-	nlata	Sue+a-		norstin-	Canacity oc	of December	31 2024 7/	30,406	30,491	27,935	-	-	
		ıotal							of December of December		JU,406 -	30,491	27,935	27,527	- 27,612	- 26,475

^{1/} These ratings are peak capability ratings for non-Solar units and Nameplate ratings for Solar units.
2/ These projected firm MW values represent the contribution of both non-solar and solar facilities at Summer and Winter Peak.
5/ 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.

The Ford Name (Speaker of Ph. 297.39.89 is a Ph. 2016). The System Firm Generating Capacity value shown includes only firm generating capacity.

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

I.B. Gulf System:

I.B.1 Description of Existing Resources

Gulf's service area contains approximately 7,550 square miles and has a population of approximately one million people. Gulf Power served an average of 477,672 customer accounts in 8 counties during 2021. These customers were served by a variety of resources including: Gulf Power-owned fossil fuel, renewable (solar and wind), other non-utility owned generation; demand side management (DSM); and interchange/purchased power.

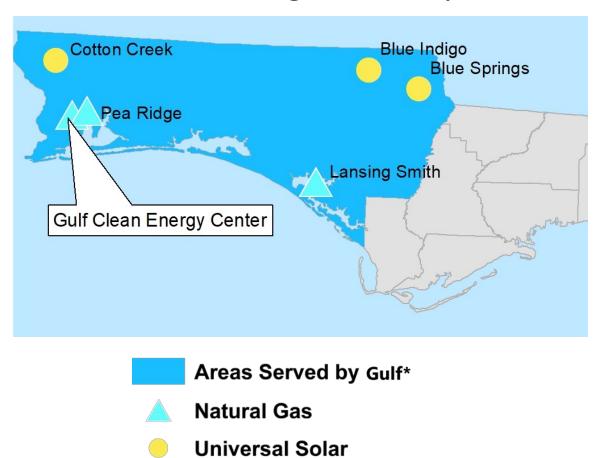
I.B.2 Gulf - Owned Resources

As of December 31, 2021, Gulf owned electric generating resources located at nine sites distributed geographically throughout its service territory, plus one site in Georgia (partial Gulf ownership of one unit) and one site in Mississippi (partial Gulf ownership of two units). These generating facilities consisted of three coal-fired steam turbine (ST) units, four gasfired steam turbine units, one gas-fired combined-cycle (CC) unit, eight gas-fired simple-cycle combustion turbines (CTs), two landfill gas (LFG) facilities, and three solar photovoltaic (PV) sites. The locations of the 21 generating units that were in commercial operation on December 31, 2021 are shown on Figure I.B.2.1 and in Table I.B.2.1.

Gulf's bulk transmission system, including both overhead and underground lines, is comprised of 1,682 circuit miles of transmission lines. Integration of the generation, transmission, and distribution systems is achieved through Gulf's 136 substations in Florida.

The existing Gulf system, including generating plants, major transmission stations, and transmission lines, is shown on Figure I.B.2.2.

Gulf Power Generating Resources by Location



*Plant Scherer in GA; Plant Daniel in MS

Figure I.B.2.1: Gulf Power Generating Resources by Location (as of December 31, 2021)

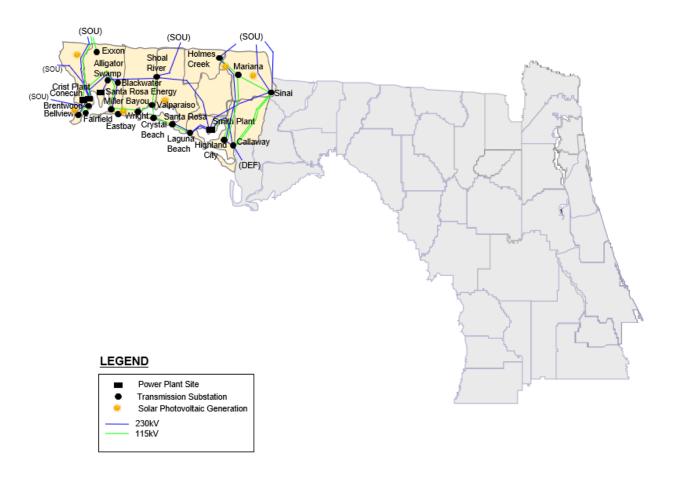
Table I.B.2.1: Gulf Power Capacity Resources by Unit Type (as of December 31, 2021)

Unit Type/ F	Plant Name	Location	Number of Units	Fuel	Summer <u>MW</u>
Coal Steam					
Daniel		Jackson County, MS	2	Coal	502
Scherer		Monroe County, Ga	1	Coal	215
	Total Coal Steam:		3		717
Combined-Cycle					
Lansing Smith		Bay County, FL	1	Gas	660
	Total Combined Cycle:		1		660
Combustion Turbines					
Pea Ridge		Santa Rosa County, FL	3	Gas	12
Lansing Smith		Bay County, FL	1	Oil	32
Gulf Clean Energy Center		Escambia County, FL	4	Gas	936
Tot	al Combustion Turbines:		8		980
Gas Steam					
Gulf Clean Energy Center		Escambia County, FL	4	Gas Steam	961
	Total Gas Steam:		4		961
Land Fill Gas					
Perdido LFG		Escambia County, FL	2	LFG	3
	Total LFG:		2		3
<u>PV ^{1/}</u>					
Blue Indigo Solar		Jackson County, FL	1	Solar Energy	74.5
Blue Springs Solar		Jackson County, FL	1	Solar Energy	74.5
Cotton Creek Solar		Escambia County, FL	1	Solar Energy	74.5
			3		223.5
		Total Units	s: 21		
	Nameplate Syste	em Generation as of December 31, 2021	=		3,545
	Firm Syste	em Generation as of December 31, 2021	=		3,454

 $^{1\!/}$ The solar capacity values shown are nameplate capacity only, not firm capacity.

 ^{2/} Information on Summer and Winter Firm capacity for solar units is provided in Schedule 1.
 3/ This table shows the same Summer MW ratings for both the reccomeneded Extreme Winter Case and the alternate P50 Winter Case

Gulf Power Bulk Transmission System



NOTE:

This map is not a complete representation of GULF's Transmission System.

Figure I.B.2.2: Gulf Power Bulk Transmission System

I.B.3 Gulf - Capacity and Energy Power Purchases

Firm Capacity: Purchases from Qualifying Facilities (QF)

Gulf currently has no firm capacity 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.

Firm Capacity: Purchases from Utilities

Gulf currently has no PPAs with other utilities.

Firm Capacity: Other Purchases

Gulf has three firm capacity purchase contracts: two with Morgan Stanley Capital Group's Kingfisher I and Kingfisher II wind projects, and one with Shell Energy North America's Tenaska project. The 2021 actual and 2022-2031 projected contributions from these facilities are shown in Table I.B.3.1, I.B.3.2 and I.B.3.3.

Non-Firm (As Available) Energy Purchases

Gulf purchases non-firm (as-available) energy from cogeneration and small power production facilities including from three solar PV facilities. The lower half of Table I.B.3.1 shows the amount of energy purchased in 2021 from these facilities along with the amount of energy purchased from customer-sited generation.

Table I.B.3.1: Gulf Power Purchased Power Resources by Contract (as of December 31, 2021)

Firm Capacity Purchases (MW)	Location		Summer
	(City or County)	Fuel	MW
I. Purchase from QF's: Cogeneration/Small Power Production Facil	ities		
		Total:	-
II. Purchases from Utilities & IPP			
MSCG - Kingfisher I	Oklahoma	Wind	53
MSCG - Kingfisher II	Oklahoma	Wind	28
Shell NA - Tenaska (AL)	Alabama	Gas	885
		Total:	966
	Total Net Firm Gener	ating Capability:	966

Non-Firm Energy Purchases (MWH)			
			Energy (MWH) Delivered to Gulf
Project	County	Fuel	in 2021
International Paper Company 1/	Escambia	Biomass	1,741
Ascend Performance Materials	Escambia	Gas	126,187
Gulf Coast Solar Center I 1/	Okaloosa	Sun	58,282
Gulf Coast Solar Center II 1/	Santa Rosa	Sun	78,446
Gulf Coast Solar Center III 1/	Escambia	Sun	90,302
Customer Owned PV & Wind 1/	Various	PV/Wind	56,085
Total Energy from	m Renewable Non-Firm Purchases Delivere	ed to Gulf in 2021 ^{1/} :	284,856
Total	Energy from All Non-Firm Purchases Delive	ered to Gulf in 2021:	411,043

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

Table I.B.3.2: Gulf Power Firm Purchased Power Summer MW

Summary of Gulf Power Firm Capacity Purchases: Summer MW (for August of Year Shown)

I. Purchases from QF's												
Cogeneration Small Power Production Facilities	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
None	-	-	-	-	-	-	-	-	-	-	-	-
	QF Purc	hases Subtotal:	0	0	0	0	0	0	0	0	0	0
II. Purchases from Utilities												
	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
None	-	-	-	-	-	-	-	-	-	-	-	-
	Utility Purc	hases Subtotal:	0	0	0	0	0	0	0	0	0	0
	otal of QF and Util	lity Purchases =	0	0	0	0	0	0	0	0	0	0
III. Other Purchases		•	0	0	0	0	0	0	0	0	0	0
	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
III. Other Purchases	Contract	Contract		 	 							-
III. Other Purchases MSCG - Kingfisher I 1/	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
III. Other Purchases	Contract Start Date 01/01/16	Contract End Date 12/31/35	2022 53	2023 53	2024 53	2025	2026 53	2027	2028 53	2029	2030	2031
MSCG - Kingfisher I ^{1/} MSCG - Kingfisher II ^{1/}	Contract Start Date 01/01/16 01/01/17	Contract End Date 12/31/35 12/31/35	2022 53 28	2023 53 28	2024 53 28	2025 53 28	2026 53 28	2027 53 28	2028 53 28	2029 53 28	2030 53 28	2031 53 28
III. Other Purchases MSCG - Kingfisher I ^{1/} MSCG - Kingfisher II ^{1/} Shell NA - Tenaska (AL)	Contract Start Date 01/01/16 01/01/17 06/01/14 2017	Contract End Date 12/31/35 12/31/35 05/24/23	2022 53 28 885	2023 53 28 0	2024 53 28 0	2025 53 28 0	2026 53 28 0	2027 53 28 0	2028 53 28 0	2029 53 28 0	2030 53 28 0	2031 53 28 0
III. Other Purchases MSCG - Kingfisher I ^{1/} MSCG - Kingfisher II ^{1/} Shell NA - Tenaska (AL)	Contract Start Date 01/01/16 01/01/17 06/01/14 2017 Other Purc	Contract End Date 12/31/35 12/31/35 05/24/23 12/31/42 thases Subtotal:	2022 53 28 885 49 1,015	2023 53 28 0 49 130	2024 53 28 0 49 130	2025 53 28 0 49 130	2026 53 28 0 49 130	2027 53 28 0 49 130	2028 53 28 0 49 130	2029 53 28 0 48 129	2030 53 28 0 48 129	2031 53 28 0 48 129
III. Other Purchases MSCG - Kingfisher I ^{1/} MSCG - Kingfisher II ^{1/} Shell NA - Tenaska (AL)	Contract Start Date 01/01/16 01/01/17 06/01/14 2017 Other Purc	Contract End Date 12/31/35 12/31/35 05/24/23 12/31/42	2022 53 28 885 49 1,015	2023 53 28 0 49	2024 53 28 0 49	2025 53 28 0 49	2026 53 28 0 49	2027 53 28 0 49	2028 53 28 0 49	2029 53 28 0 48	2030 53 28 0 48	2031 53 28 0 48
III. Other Purchases MSCG - Kingfisher I ^{1/} MSCG - Kingfisher II ^{1/} Shell NA - Tenaska (AL)	Contract Start Date 01/01/16 01/01/17 06/01/14 2017 Other Purc	Contract End Date 12/31/35 12/31/35 05/24/23 12/31/42 thases Subtotal:	2022 53 28 885 49 1,015	2023 53 28 0 49 130	2024 53 28 0 49 130	2025 53 28 0 49 130	2026 53 28 0 49 130	2027 53 28 0 49 130	2028 53 28 0 49 130	2029 53 28 0 48 129	2030 53 28 0 48 129	2031 53 28 0 48 129

^{1/} These PPAs are from a variable wind source; however, the PPA supplier has committed to a certain amount of minimum MW per hour which FPL and Gulf treat as firm capacity for resource planning purposes.

^{2/} These PPAs are non-firm, energy-only contracts due to the unscheduled, intermitent nature of solar resources. For resource planning purposes, a portion of the nameplate rating of the solar facilities has been, and continues to, provide, on average, a non-zero value at the system Summer peak hour.

Table I.B.3.3: Gulf Power Firm Purchased Power Winter MW

Summary of Gulf Power Firm Capacity Purchases: Winter MW (for January of Year Shown)

Cogeneration Small Power Production Facilities Contract Start Date Contract End Date 2028 2031 None QF Purchases Subtotal: 0 0 0 II. Purchases from Utilities Contract Contract 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 Start Date End Date Utility Purchases Subtotal: 0 0 Total of QF and Utility Purchases =

III. Other Purchases												
	Contract Start Date	Contract End Date	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
MSCG - Kingfisher I 1/	01/01/16	12/31/35	71	71	71	71	71	71	71	71	71	71
MSCG - Kingfisher II 1/	01/01/17	12/31/35	38	38	38	38	38	38	38	38	38	38
Shell NA - Tenaska (AL)	06/01/14	05/24/23	885	885	0	0	0	0	0	0	0	0
Gulf Solar PPAs 2/	2017	12/31/42	0	0	0	0	0	0	0	0	0	0
	Other Purcha	ses Subtotal:	994	994	109	109	109	109	109	109	109	109
		-										

Total "Non-QF" Purchases =	994	994	109	109	109	109	109	109	109	109
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Winter Firm Capacity Purchases Total MW:	994	994	109	109	109	109	109	109	109	109

^{1/} These PPAs are from a variable wind source; however, the PPA supplier has committed to a certain amount of minimum MW per hour which FPL and Gulf treat as firm capacity for resource planning purposes.

I. Purchases from QF's

^{2/} These PPAs are non-firm, energy-only contracts due to the unscheduled, intermitent nature of solar resources. For resource planning purposes, a portion of the nameplate rating of the solar facilities has been, and continues to, provide, on average, a non-zero value at the system Summer peak hour.

I.B.4 Gulf - Demand Side Management (DSM)

Gulf Power and FPL's DSM efforts were integrated in the 2021 Integrated DSM Plan Filing. Therefore, information on Gulf Power's DSM is available in Section I.A.5.

I.B.5 Existing Generating Units in Gulf's Original Service Area

Schedule 1 presents the generating capacity in Gulf's original service area as of December 31, 2021.

Page 1 of 1 Schedule 1 Gulf Power Existing Generating Facilities As of December 31, 2021 (1) (2) (3) (6) (7) (8) (11) (12) (13) (13a) (14) (15) (15a) (16) Alt. Actual/ Fuel Expected Gen.Max Net Capability Firm Capability Unit Davs In-Service Retirement Winter Summer Plant Name Type Pri. Alt. Pri. Alt. Use Month/Yea Month/Year KW MW <u>MW</u> MW MW <u>MW</u> MW Jackson County Blue Indigo Solar 2/5N/12W: 35,36/6N/12W 0.06 74,500 74.5 74.5 74.5 0.06 49.4 Solar Solar N/A N/A Unknown 74,500 74.5 74.5 74.5 0.06 0.06 Mar-20 Blue Springs Solar Jackson County 36/5N/9W 74.500 74.5 74.5 74.5 0.02 0.02 41.0 Solar N/A N/A Dec-21 Unknown 74,500 74.5 74.5 74.5 0.02 0.02 41.0 Cotton Creek Solar 2 Jackson County 7/4N/8W 74,500 74.5 74.5 0.04 0.04 Solar Solar N/A N/A Dec-21 Unknown 74.500 74.5 74.5 74.5 0.04 0.04 43.0 Daniel (1) Jackson County, MS 42/5S/6W RR 1st Q 2024 274,125 251 251 251 251 251 ST С RR -Jun-81 1st Q 2024 274.125 251 251 251 251 251 251 Gulf Clean Energy Center Escambia County 2,107,650 1,909 1,909 1,901 1,909 1,909 1,901 ST NG PL Jul-59 4th O 2024 93.750 75 75 75 75 ST NG PL Jun-61 4th Q 2026 93,750 75 75 75 75 75 75 ST NG PL May-70 369.750 Unknown 315 315 315 315 315 315 NG Aug-73 Unknown 578,000 496 496 496 496 496 Lansing Smith Bay County 36/2S/15W 698,720 686 695 692 686 695 692 СС 656,870 646 655 655 Apr-02 660 660 May-71 Pea Ridge Santa Rosa County 15/1N/29W 14.250 15 15 12 15 15 12 СТ 4,750 СТ NG 4th Q 2024 4,750 СТ NG May-98 4th Q 2024 4.750 Perdido LFG Escambia County 3,200 PL -LFG Oct-10 4th Q 2029 1,600 1.5 1.5 1.5 1.5 IC: LEG PI Oct-10 4th Q 2029 1.600 1.5 1.5 1.5 1.5 1.5 1.5 Monroe County, GA 215 215 222,750 215 215 215 215 RR -Jan-87 4th Q 2028 222,750 215 Total Nameplate System Generating Capacity as of December 31, 2021 3/ = 3,554 3,563 3,549

Total Firm System Generating Capacity as of December 31, 2021 4/ =

3.330

3.339

3.458

^{1/} Unit capabilities shown represent Gulfs portion of Daniel units 1 & 2 (50%) and Scherer Unit 3 (25%).

^{2/} These projected firm MW values represent the contribution of both non-solar and solar facilities at Summer and Winter Peak.

^{3/} The Total Nameplate System Generating Capacity value shown includes Gulf-owned firm and non-firm generating capacity.

 $^{{\}it 4/}\ {\it The\ Total\ Firm\ System\ Generating\ Capacity\ value\ shown\ includes\ only\ firm\ generating\ capacity.}$

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II. Forecast of Electric Power Demand

II.A. Overview of the Load Forecasting Process

On January 1, 2019, Gulf Power became a subsidiary of NextEra Energy, the parent company of FPL. Effective January 1, 2021, Gulf Power was legally merged with FPL. The consolidated load forecasting team developed the forecasts of customers, sales, net energy for load (NEL), and peak demands presented in this 2022 Site Plan. The forecasts presented in this Site Plan were developed using consistent methodologies for both the FPL and Gulf legacy areas. With the exception of the Winter peak forecast, these methodologies were also used to develop the forecasts previously presented in the 2020 and 2021 Site Plans. The load forecasting team will continue to evaluate and implement appropriate enhancements to the forecasting methodologies for upcoming forecasts.

As previously discussed, FPL and Gulf plan to integrate the two systems into a single electric operating system in mid-2022, after which the Gulf legacy service area will become the Northwest Florida Division of the FPL integrated system. In this document, the load forecasts for the single integrated utility will be presented and these forecasts will reflect the growth of the new integrated system, including reduced peak demand from load diversity.

FPL typically develops long-term forecasts of customers, sales, NEL, and peak loads on an annual basis. The forecasts were developed for the FPL and Gulf legacy areas, which were then combined to arrive at the forecasts for the single integrated system for the years 2022 and beyond. This is consistent with the forecasting methods employed for the 2020 and 2021 Site Plans. These load forecasts are utilized throughout this 2022 Site Plan and are key inputs in the resource planning analyses that led to the integrated resource plans presented in this document.

The following pages describe how the forecasts of customers, sales, NEL, and peak loads were initially developed separately for FPL and Gulf legacy areas and then combined into a single set of forecasts for the integrated system. The reason for this approach is because the historical data needed to develop the forecasts are for the legacy areas; historical data for the integrated system was not available at the time the forecasts were developed. For purposes of discussing the models, "FPL" will be used when referring to models specific to the FPL legacy system, and "Gulf" will be used when referring to models specific to the Gulf legacy system.

Similar to previous forecasts, the drivers for the forecasts include household growth, economic conditions, electricity prices, weather, and energy-efficiency codes and standards. The forecasts for customers, energy sales, NEL, and summer peak demands are 50% probability (P50) forecasts,

which means there is a 50% probability that actual results will be either higher or lower than the forecast. In regard to FPL's Recommended resource plan, the forecasts for the Extreme Winter peak demand are based on the actual weather conditions experienced in December 1989, as previously noted in the Executive Summary of this Site Plan. These weather conditions are significantly more severe than the normal P50 Winter weather conditions. FPL's Business as Usual resource plan continues to use a P50 Winter Peak forecast.

The projections for population growth, household growth, and other economic variables are obtained from IHS Markit, a leading economic forecasting firm that has been previously used by FPL. Using statistical models, these inputs are quantified in terms of their impact on the respective forecasts.

Weather is a key factor that affects energy sales and peak demand. The weather variables for use in the forecasting models are as follows:

- The residential, commercial, and industrial energy models incorporate heating degree hours and/or cooling degree hours. The threshold temperatures differ based on how each customer group responds to temperatures.
- The Summer peak demand models incorporate maximum and minimum temperatures and/or cooling degree hours on the peak Summer day while the Winter peak demand models incorporate minimum temperatures on the peak Winter day and the buildup of heating degree hours on the day prior to the peak day. Additional details are provided later in this chapter.

The weather variables used in the FPL models are based on a composite hourly temperature from the following weather stations: Miami, Ft. Myers, Daytona Beach, and West Palm Beach. The temperatures for each weather station are weighted based on the energy sales associated with that region. The resulting composite temperatures are then used to derive the cooling degree hours and heating degree hours used in the energy models and the peak day temperatures used in the Summer and Winter peak demand models.

The weather variables used in the Gulf models are based on the hourly temperatures from the Pensacola weather station. The Pensacola hourly temperatures are then used to derive the cooling degree hours and heating degree hours used in the energy models, the peak day cooling degree hours used in the Summer peak demand model, and the temperatures used in the Winter peak demand model.

II.B. Customer Forecasts

The customer forecasts for the integrated system for 2022 and beyond are the sum of the respective class-level customer forecasts for the FPL and Gulf legacy areas. The class-level customer forecasts were developed using a combination of regression models, exponential smoothing models, and inputs regarding wholesale contracts. The statistical models were developed using the software package MetrixND. The methods and tools used to develop the customer forecasts are consistent with those used for the 2020 and 2021 Site Plans, with routine updates to include additional historical data and updated economic projections, along with minor changes to model specifications.

The residential customer forecasts were developed using regression models which included households, lag dependent variables, and binary variables. The commercial customer models were segmented by customer size, and the models were a combination of regression models and exponential smoothing models. The commercial regression models included economic variables (lagged unemployment rate and retail sales), lagged dependent variables, and binary variables. The industrial customer models were also segmented by customer size and the models were a combination of a regression model and exponential smoothing models. The industrial regression model included housing starts, lagged dependent variables, and binary variables. The customer forecasts for the Metro, Street & Highway Lighting, and Other customer classes were developed using exponential smoothing models. Resale (wholesale) customers were forecasted based on known or likely wholesale contracts.

Total customer growth is projected to grow at an average annual rate of 1.2% during the forecast period. The primary driver of customer growth is projected increase in population.

II.C. Energy Sales Forecasts

Energy sales forecasts for the integrated system for 2022 and beyond are the sum of the respective class-level energy sales forecasts for the FPL and Gulf legacy areas. First, forecasts were developed for the major revenue classes, wholesale energy sales, and losses. Next, energy adjustments were calculated for factors such as electric vehicles and private solar and were applied to the class-level energy sales forecasts. Finally, these forecasts were then aggregated up to arrive at NEL forecasts (a bottom-up approach). The statistical models used in the energy sales forecasting process were developed using the software package MetrixND.

The methods and tools used to develop the energy sales forecasts were consistent with those used for the 2020 and 2021 Site Plans, with routine updates to include additional historical data and updated economic projections, along with minor changes to model specifications.

1. Residential Sales

The residential energy sales forecasts were developed using econometric models. Residential energy sales were first expressed as monthly use per customer per billing day. The forecasted energy use per customer per billing day was then multiplied by the projected number of billing days and customers to arrive at the residential billed energy sales forecast. The billed energy sales were then adjusted for unbilled energy to arrive at the calendar month delivered energy sales forecast. The residential energy use per customer per billing day models include variables for cooling degree hours, heating degree hours, real per capita income per household, the twelve-month moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, binary variables, and autoregressive terms. The residential energy sales forecasts were also adjusted to reflect the anticipated impact of continued adoption of electric vehicles and private solar.

2022 residential energy sales for the integrated system are projected to be 54.3% of sales to ultimate consumers and are projected to grow at an average annual rate of 1.5% over the forecast period.

2. Commercial Sales

The commercial energy sales forecasts were also developed using econometric models where the energy sales were expressed as monthly use per customer per billing day. The forecasted energy use per customer per billing day was multiplied by the projected number of billing days and customers to arrive at the commercial billed energy sales forecasts. The billed energy sales were then adjusted for unbilled energy to arrive at the calendar month delivered energy sales forecasts. The commercial energy use per customer forecasts were developed using separate models based on customer size. The two FPL models were for small/medium customers (commercial customers on energy only and demand rates less than 500 kilowatt) and large customers (commercial customers on demand rates of 500 kW or higher). The Gulf models were for small customers (commercial customers on General Service or GS rates) and large customers (commercial customers with demands of 25 kW or higher). The commercial energy sales models utilize variables for cooling degree hours, heating degree hours, employment, the twelve-month moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, binary variables, and an autoregressive term. The commercial lighting sales forecast was developed using inputs

from FPL's lighting team. These forecasts are then added together to arrive at the total commercial sales forecast. The total commercial energy sales forecast was also adjusted to reflect the impact of private solar.

2022 commercial energy sales for the integrated system are projected to be 41.5% of sales to ultimate consumers and are projected to grow at an average annual rate of 0.7% over the forecast period.

3. Industrial Sales

The projected industrial class energy sales were also forecasted using both econometric and exponential smoothing models. Industrial energy sales were expressed as either energy sales per customer or energy sales per customer per bill day. The resulting forecasts were then multiplied by bill days and/or customers to arrive at the billed energy sales forecasts. Energy usage for FPL's small industrial customers (industrial customers on rate GS) was forecasted using an econometric model which included cooling degree hours and a binary variable while energy usage for medium and large industrial customers were forecasted using exponential smoothing models. Gulf's industrial energy usage was forecasted using an exponential smoothing model. The industrial lighting sales forecast was developed using inputs from FPL's lighting team. These forecasts were then added together to arrive at the total industrial sales forecast.

2022 industrial energy sales for the integrated system are projected to be 3.8% of sales to ultimate consumers and are projected to remain flat over the forecast period.

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 Railroad and Railways sales forecast was developed using a "use per customer" regression model which included monthly binary variables and autoregressive terms. The output of the use per customer model was multiplied by the number of customers to arrive at the Railroad and Railways sales forecast.

The Street and Highway sales forecasts were developed using inputs from FPL's lighting team.

5. Other Public Authority Sales

This class consists of a sports field rate schedule (which is closed to new customers) and one governmental account. The forecast for this class was developed using an exponential smoothing model.

6. Total Sales to Ultimate Customer

The sales forecasts for each of the revenue classes were each summed to produce the Total Sales to Ultimate Customer forecasts.

7. Sales for Resale

Sales for Resale (wholesale) customers are comprised of sales to municipalities and/or electric co-operatives. These customers differ from jurisdictional customers in that they are not the ultimate users of the electricity. Instead, they resell this electricity to their own customers.

The Sales for Resale 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 eleven customers in this class: Florida Keys Electric Cooperative, Lee County Electric Cooperative, New Smyrna Beach, Wauchula, Homestead, Quincy, Moore Haven, Florida Public Utilities Company, Blountstown, Alachua, and Jacksonville Electric Authority.

Since May 2011, FPL has provided service to the Florida Keys Electric Cooperative under a long-term, full-requirements contract which continues through 2032. The sales to Florida Keys Electric Cooperative are based on customer-supplied information and historical coincidence factors.

FPL sales to Lee County began in 2010. Lee County has a contract with FPL for the full requirements of their load, which began in 2014 and continues 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 continues through December 2024. Under a second contract, additional sales to New Smyrna Beach began in July 2017 and also continues through December 2024. FPL Sales to New Smyrna increased temporarily after entering into a third contract which began in January 2019 and ended December 2021.

FPL's sales to Wauchula began in October 2011. The contract continues through December 2023.

FPL sales to Homestead began in August 2015. The contract continues through December 2026. Under a separate contract, additional sales to Homestead began in January 2020 and are projected to continue through December 2026.

FPL sales to Quincy began in January 2016. The contract continues through December 2027.

FPL sales to Moore Haven began in July 2016. The contract continues through December 2025.

FPL sales to Florida Public Utilities Company began in January 2018. The contract continues through December 2026.

FPL sales to Blountstown began in January 2022 and continue through April 2027.

FPL sales to Alachua began in January 2022 and continue through March 2029.

FPL sales to Jacksonville Electric Authority began in January 2022 and continue through December 2041.

II.D. Net Energy for Load (NEL)

The NEL forecasts for the years 2022 through 2031 are the sums of the retail energy, wholesale energy, and losses forecasts. Through the use of the energy efficiency variable, the retail energy sales forecast includes 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 lamps (CFLs) and light emitting diodes (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, from that year forward, their cumulative impact on NEL for the integrated system is projected to be a reduction of 11,367 GWh by 2031. This represents an almost 8% reduction in what the forecasted NEL for 2031 would have been absent these codes and standards. From the end of 2021, the incremental reduction through 2031 is expected to be 3,821 GWh. The estimated impacts from codes and standards are based on the energy efficiency variables in the respective energy models. Collectively, this represents an extraordinary amount of energy efficiency on the integrated system. In addition, this energy efficiency is not funded through Environmental Conservation Cost Recovery (ECCR) rates paid by the general body of customers.

Adjustments were made to the NEL forecast to address the impact of incremental private (customer owned) solar projected to be added during the forecast period. The impact of private solar on the NEL forecast for the integrated system is projected to be a reduction of approximately 4,000 GWh by 2031. Adjustments also were made for the additional load projected to be added due to the incremental adoption of new plug-in electric vehicles. This results in an increase on the integrated system of approximately 4,900 GWh by 2031.

The combined NEL impacts of the adjustments for private solar and electric vehicles are an incremental net increase of approximately 900 GWh by the end of the Site Plan forecast period, compared to the incremental net increase of approximately 1,200 GWh in the prior Site Plan. The lower incremental increase in this Site Plan is due to load additions from plug-in electric vehicles being offset by even greater reductions from private solar.

II.E. System Peak Forecasts

The rate of absolute growth in peak load is a function of the size of the customer base, projected economic conditions, and energy-efficiency codes and standards. The peak load forecast models capture these behavioral relationships. The peak load forecasts also reflect changes in load from private solar, plug-in electric vehicles, economic development riders, and wholesale requirements contracts.

The monthly peak loads for the integrated system from 2022 and beyond are the highest hourly demand from the forecasted system hourly load forecast, which was developed by first adjusting Gulf's load to reflect Eastern time zone and then summing the forecasted system hourly loads for the FPL and Gulf legacy systems. The integrated system peak load forecast reflects the growth in peak load and includes the expected reduction to the peak demand for the integrated system that results from load diversity.

When viewed as separate systems or regions, the loads peak at different times which results in load diversity, primarily due to the Gulf legacy system being located in a different time zone than the FPL legacy system. The benefit of load diversity is a reduction to the integrated system peak demand. By 2031, the peak demand reductions from load diversity are projected to be 105 MW in the Summer and 523 MW in the Extreme Winter.

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 CFLs and LEDs. The impact from these energy-efficiency standards

began in 2005, and their cumulative reduction, from that year, on the integrated Summer peak is projected to reach approximately 5,899 MW by 2031. This reduction includes engineering estimates and any resulting behavioral changes.

For the integrated system, the cumulative 2031 impacts from these energy-efficiency codes and standards are projected to effectively reduce the Summer peak by approximately 19% and the Winter peak by approximately 3% for that year. From the end of 2021 through 2031, the projected incremental impacts from these energy-efficiency codes and standards are a reduction on the Summer peak of approximately 1,640 MW and a reduction on the Winter peak of approximately 419 MW.

As noted previously, the peak forecasts were also adjusted for the estimated load impacts from private solar and plug-in electric vehicles. Plug-in electric vehicles are projected to increase load on the integrated system by approximately 1,200 MW ¹⁵ in the Summer and 500 MW in the Winter by the end of 2031. Incremental additions of private solar on the integrated system are expected to decrease system load by approximately 1,000 MW in the Summer and 100 MW in the Winter by the end of 2031.

The forecasting methodologies for Summer, Winter, and monthly system peaks are discussed below.

1. System Summer Peak

The Summer peak demand forecast for the integrated system is the highest hourly demand during the Summer months from the integrated system hourly forecast which was developed by summing the forecasted system hourly loads for FPL and Gulf. This approach ensures the Summer peak demand forecast for the integrated system reflects the growth in Summer peak load while reflecting the previously mentioned Summer peak demand reduction associated with load diversity. The Summer peak demand for the integrated system is projected to occur in August.

The Summer peak forecasts were developed using econometric models where the peak loads were expressed as Summer peak load per customer and the resulting projected peak loads per customer were multiplied by the forecast number of customers to arrive at the Summer peak load forecasts. The models included variables for weather, employment or income, and

¹⁵ Excluding plug-in electric vehicle impacts, Summer peak demand growth averages approximately 270 MW per year. The 1,200 MW impact from EVs is roughly equivalent to 4 years of Summer peak demand growth without EVs.

peak load reductions from change in efficiency codes and standards. The peak loads were then adjusted to account for the expected changes in loads resulting from private solar, plugin electric vehicles, and wholesale requirements contracts to derive FPL's system Summer peak.

2. System Winter Peak

The Winter peak forecast presented in this Site Plan for FPL's recommended resource plan is the highest hourly demand during the Winter months from the integrated system hourly forecast, which was developed by summing the forecasted system hourly loads for FPL and Gulf. This approach ensures the Winter peak demand forecast for the integrated system reflects the growth in Winter peak while reflecting the Winter peak demand reduction associated with load diversity. The Winter peak demand for the integrated system is projected to occur in January.

The Winter peak forecasts for FPL and Gulf reflect the expected demands based on the actual weather conditions experienced during December 1989. These peak demand forecasts for FPL and Gulf were developed using a two-step approach. The first step was to develop forecasts for P50 normal Winter weather conditions using econometric models. The second step was to estimate the increased additional Winter peak demands associated with the actual 1989 Winter weather conditions and temperatures.

For the first step of the process described above, FPL developed P50 normal weather Winter peak loads using two econometric models, one each for the FPL and Gulf legacy areas. The model for the FPL legacy area expressed Winter peak load as peak load per customer and included weather variables, employment, and binary variables. The projected peak load per customer was multiplied by the customer forecast to arrive at the projected Winter peak load. The projections were then adjusted for the expected changes in loads resulting from private solar, plug-in electric vehicles, and wholesale requirement contracts to arrive at the forecasted normal weather Winter peak load. The model for the Gulf legacy area expressed Winter peak load as peak load and included weather, customers, peak load reductions from changes in efficiency codes and standards, a binary variable, and an autoregressive term. The projected load was then adjusted for the expected changes in loads resulting from private solar and plug-in electric vehicles to arrive at the forecasted normal weather Winter peak load.

For the second step of the process, the P50 normal weather peak loads were then adjusted to reflect the additional load associated with the difference in normal weather versus the actual weather conditions experienced in December 1989. Two multiple linear regression models were developed, one each for the FPL and Gulf legacy areas, using historical daily peak loads

for those days with heating load and weather variables that are consistent with those utilized in the normal weather peak load models. The resulting weather coefficients were then used to calculate the expected percent increase in the peak Winter load from the December 1989 weather conditions compared to the normal weather conditions.

The rationale for this approach is that the models used to develop the normal weather Winter peak are inadequate for estimating the expected peak demand during weather conditions such as those experienced in December 1989. The normal weather Winter peak models rely on actual observed Winter peak demands and the models assume that the Winter peak demands are solely a function of the variables included in the models, such as weather. During the December 1989 weather event, the actual peak demand was substantially lower than what would have otherwise been recorded because abnormal factors contributed to a reduction in the recorded peak demand, such as rotating feeder outages. In order to estimate the expected load response for Winter weather conditions like that experienced in December 1989, it was necessary to develop a model where there were significant numbers of data points for Winter peaks without abnormal factors. This was done by developing multiple linear regression models based on historical daily data for those days with heating load. Those models were then used to calculate the percent increase over the normal Winter peak due to the December 1989 actual weather conditions.

The Winter peak forecasts used in the development of FPL's alternate, or "business as usual", resource plan was the P50 Winter peak outlined in the first step of the process discussed above.

3. Monthly Peak Forecasts

The forecasting process for the monthly peaks assumes the Summer peak for the FPL legacy area occurs in the month of August while the Summer peak for the Gulf legacy area occurs in the month of July. It also assumes that the Winter peak for both legacy areas occur in the month of January. Finally, the remaining monthly peaks are forecasted based on the historical relationship between the monthly peaks and the annual Summer peak.

The monthly peak demand forecasts for the integrated system for 2022 and beyond are the highest hourly demand by month from the integrated system hourly forecasts. This approach ensures the integrated monthly peak demand forecast reflects the growth in monthly peaks as well as the monthly peak demand reductions associated with load diversity. The Summer peak for the integrated FPL system occurs in August because of the large size of the FPL legacy area. The Winter peak for the integrated FPL system occurs in January.

II.F. Hourly Load Forecast

The forecasted values for system hourly load on the integrated system were the summation of the FPL and Gulf hourly load for the period. The Gulf system hourly load was adjusted from Central to Eastern time zone to be consistent with FPL's system hourly load.

Forecasted values for system hourly load on the FPL legacy system were developed using a system load forecasting program named 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 FPL's monthly peaks and energy.

Forecasted values for system hourly load on the Gulf legacy system were also developed using MetrixLT, which uses historical Gulf 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 Gulf's monthly peaks and energies.

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, economic/business cycles, and fluctuating weather conditions. Large weather fluctuations can and frequently do result in significant deviations between actual and forecasted peak demands. In particular, Winter peak demands have experienced significantly greater volatility than those observed for the Summer peak or NEL.

The inherent uncertainty in load forecasting is addressed in different ways regarding the overall resource planning and operational planning work. With respect to resource planning work, the utilization of a 20% total reserve margin (TRM) criterion, a Loss-of-Load-Probability (LOLP) criterion of 0.1 days per year, and a 10% generation-only reserve margin (GRM) criterion are designed to maintain reliable electric service for customers in light of forecasting and other uncertainties. Additionally, FPL's Recommended resource plan relies on a Winter peak demand forecast which reflects the actual weather conditions experienced during December 1989. As previously discussed, FPL's Winter peak demands have experienced significantly greater volatility than the Summer peak or NEL and this greater volatility results in additional risks to FPL's ability to serve winter load. The use of a Winter peak based on actual December 1989 weather conditions results in a resource plan which provides adequate resources available to meet the load expected during such a weather event.

II.H. DSM

FPL accounts for the effects of its DSM energy-efficiency programs through August 2021, which 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 has been implemented after the 2021 Summer peaks have occurred, 2) projected impacts from incremental energy efficiency and load management that FPL plans to implement in 2022 through 2024 in response to the DSM Goals that were set for each utility by the FPSC in Order No. PSC-2019-0509-FOF-EG in the 4th Quarter of 2019 for the 2020 – 2024 time period, 3) the inclusion of projected additional cost-effective DSM for the years 2025 through 2031, and 4) the impacts from previous signups in FPL's load management programs that will continue through 2031. After making these line item adjustments to the load forecasted load values, the resulting "firm" load forecast, as shown in Chapter III in Schedules 7.1 and 7.2., is then used in the IRP work.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		_	I	Rural & Residential			Comme	rcial
		Members		Average	Average kWh		Average	Average kWh
		per		No. of	Consumption		No. of	Consumption
<u>Year</u>	<u>Population</u>	<u>Household</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	Customers	Per Customer
2012	9,102,426	2.25	53,434	4,052,174	13,187	45,220	511,887	88,340
2013	9,215,844	2.25	53,930	4,097,172	13,163	45,341	516,500	87,786
2014	9,343,121	2.24	55,202	4,169,028	13,241	45,684	525,591	86,919
2015	9,492,522	2.25	58,846	4,227,425	13,920	47,369	532,731	88,916
2016	9,650,127	2.26	58,687	4,284,159	13,699	47,355	540,356	87,637
2017	9,770,125	2.27	58,188	4,338,224	13,413	47,151	547,908	86,056
2018	9,851,964	2.26	59,096	4,391,832	13,456	47,394	553,562	85,616
2019	9,933,032	2.26	60,325	4,479,356	13,467	48,078	565,622	85,000
2020	9,986,341	2.25	63,743	4,548,301	14,015	46,161	571,587	80,759
2021	10,015,648	2.17	61,725	4,618,098	13,366	46,849	578,134	81,035

Historical Values (2012 - 2021):

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

Col. (4) and Col. (7) represent actual energy sales $\underline{including}$ 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: Gulf History of Energy Consumption And Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
		_		Rural & Residential			Comme	rcial	
		Members		Average	Average kWh		Average	Average kWh	
		per		No. of	Consumption		No. of	Consumption	
<u>Year</u>	<u>Population</u>	<u>Household</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	Customers	Per Customer	
2012	783,639	2.10	5,054	379,897	13,303	3,859	53,706	71,846	
2013	797,617	2.11	5,089	382,599	13,301	3,810	54,261	70,215	
2014	808,791	2.11	5,362	386,765	13,865	3,838	54,749	70,104	
2015	818,621	2.11	5,365	391,465	13,705	3,898	55,234	70,566	
2016	829,887	2.11	5,358	396,408	13,515	3,869	55,876	69,236	
2017	840,755	2.11	5,229	401,793	13,015	3,814	56,428	67,583	
2018	851,863	2.11	5,519	406,949	13,563	3,829	56,892	67,298	
2019	862,090	2.14	5,520	407,436	13,548	3,775	56,590	66,710	
2020	866,117	2.13	5,454	412,526	13,222	3,524	57,274	61,522	
2021	872,093	2.08	5,437	418,852	12,980	3,657	57,910	63,145	

Historical Values (2012 - 2021):

Col. (2) includes the Pensacola, Crestview, and Panama City Metropolitan Statistical Areas (MSAs), which are representative of the area served by Gulf.

Col. (4) and Col. (7) represent actual energy sales <u>including</u> 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.

Recommended Plan - Extreme Winter Forecast Schedule 2.1 Forecast of Energy Consumption (Extreme Winter) And Number of Customers by Customer Class

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			R	Rural & Residential			Comme	rcial
		Members		Average	Average kWh		Average	Average kWh
		per		No. of	Consumption		No. of	Consumption
Year	Population	Household	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	Customers	Per Customer
2022	10,959,439	2.15	68,356	5,106,987	13,385	52,216	642,492	81,270
2023	11,055,153	2.14	69,076	5,177,425	13,342	52,768	651,364	81,012
2024	11,168,732	2.13	69,899	5,247,177	13,321	53,313	659,873	80,792
2025	11,288,436	2.12	70,914	5,315,285	13,341	53,772	668,080	80,487
2026	11,408,902	2.12	71,795	5,382,382	13,339	54,161	676,141	80,103
2027	11,530,928	2.12	72,698	5,448,970	13,342	54,528	684,222	79,694
2028	11,657,165	2.11	73,886	5,515,079	13,397	54,914	692,124	79,342
2029	11,785,895	2.11	75,252	5,580,392	13,485	55,301	699,841	79,020
2030	11,917,857	2.11	76,694	5,645,085	13,586	55,565	707,540	78,533
2031	12,051,376	2.11	78,358	5,709,413	13,724	55,857	715,213	78,098

Projected Values (2022 - 2030):

Col. (2) represents population in the area served by FPL and FPL Northwest FL (formerly Gulf).

Col. (4) and Col. (7) represent forecasted energy sales that do <u>not</u> 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.

Business as Usual Case - P50 Winter Load 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			
		Members		Average	Average kWh		Average	Average kWh	
		per		No. of	Consumption		No. of	Consumption	
<u>Year</u>	<u>Population</u>	<u>Household</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	Customers	Per Customer	
2022	10,959,439	2.15	66,784	5,106,987	13,077	51,015	642,492	79,401	
2023	11,055,153	2.14	67,488	5,177,425	13,035	51,555	651,364	79,149	
2024	11,168,732	2.13	68,225	5,247,177	13,002	52,036	659,873	78,858	
2025	11,288,436	2.12	69,236	5,315,285	13,026	52,499	668,080	78,582	
2026	11,408,902	2.12	70,078	5,382,382	13,020	52,865	676,141	78,186	
2027	11,530,928	2.12	70,923	5,448,970	13,016	53,197	684,222	77,748	
2028	11,657,165	2.11	72,062	5,515,079	13,066	53,559	692,124	77,383	
2029	11,785,895	2.11	73,387	5,580,392	13,151	53,931	699,841	77,062	
2030	11,917,857	2.11	74,788	5,645,085	13,248	54,184	707,540	76,582	
2031	12,051,376	2.11	76,382	5,709,413	13,378	54,448	715,213	76,128	

Projected Values (2022 - 2030):

Col. (2) represents population in the area served by FPL and FPL Northwest FL (formerly Gulf).

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

 $\mbox{Col.}\ (5)$ and $\mbox{Col.}\ (8)$ represent the annual average of the twelve monthly values.

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
_		Industri	al	Railroads	Street &	Sales to	Sales to
		Average	Average kWh	&	Highway	Public	Ultimate
		No. of	Consumption	Railways	Lighting	Authorities	Consumers
<u>Year</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>
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
2019	2,994	11,799	253,759	82	428	23	111,929
2020	3,119	11,999	259,969	71	417	20	113,531
2021	3,112	12,553	247,894	68	403	19	112,177

Historical Values (2012 - 2021):

Col. (16) represents actual energy sales <u>including</u> 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: Gulf History of Energy Consumption And Number of Customers by Customer Class

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
_		Industrial		Railroads	Street &	Sales to	Sales to
_		Average	Average kWh	&	Highway	Public	Ultimate
		No. of	Consumption	Railways	Lighting	Authorities	Consumers
Year	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	GWh	<u>GWh</u>	<u>GWh</u>
2012	1,725	267	6,453,071	0	25	0	10,663
2013	1,700	258	6,581,320	0	21	0	10,620
2014	1,849	258	7,165,343	0	25	0	11,075
2015	1,798	249	7,235,499	0	25	0	11,086
2016	1,830	247	7,402,625	0	25	0	11,082
2017	1,740	255	6,815,486	0	26	0	10,809
2018	1,757	253	6,931,497	0	28	0	11,132
2019	1,756	250	7,026,958	0	28	0	11,079
2020	1,630	245	6,655,757	0	28	0	10,635
2021	1,609	237	6,799,769	0	29	0	10,731

Historical Values (2012 - 2021):

Col. (16) represents actual energy sales $\underline{including}$ 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).

Recommended Plan - Extreme Winter Forecast Schedule 2.2 Forecast of Energy Consumption (Extreme Winter) And Number of Customers by Customer Class

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		Industrial		Railroads	Street &	Sales to	Sales to
		Average	Average kWh	&	Highway	Public	Ultimate
		No. of	Consumption	Railways	Lighting	Authorities	Consumers
<u>Year</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>
2022	4,771	13,325	358,061	70	385	21	125,818
2023	4,787	13,441	356,131	72	368	21	127,092
2024	4,793	13,432	356,836	74	373	21	128,472
2025	4,791	13,408	357,364	76	378	21	129,952
2026	4,792	13,360	358,702	77	384	21	131,230
2027	4,794	13,251	361,778	77	391	21	132,510
2028	4,795	13,150	364,613	78	396	21	134,089
2029	4,795	13,097	366,084	78	396	21	135,842
2030	4,795	13,064	367,024	78	396	21	137,549
2031	4,796	12,977	369,580	79	396	21	139,506

Projected Values (2022 - 2030):

Col. (10) and Col.(15) represent forecasted energy sales that do <u>not</u> 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).

Business as Usual Case - P50 Winter Load Schedule 2.2 Forecast of Energy Consumption And Number of Customers by Customer Class

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
		Industrial		Railroads	Street &	Sales to	Sales to
		Average	Average kWh	&	Highway	Public	Ultimate
		No. of	Consumption	Railways	Lighting	Authorities	Consumers
<u>Year</u>	<u>GWh</u>	Customers	Per Customer	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>
2022	4,661	13,325	349,825	70	385	21	122,936
2023	4,677	13,441	347,943	72	368	21	124,181
2024	4,678	13,432	348,292	74	373	21	125,407
2025	4,678	13,408	348,909	76	378	21	126,888
2026	4,678	13,360	350,120	77	384	21	128,102
2027	4,677	13,251	352,946	77	391	21	129,287
2028	4,676	13,150	355,612	78	396	21	130,791
2029	4,676	13,097	357,014	78	396	21	132,489
2030	4,676	13,064	357,904	78	396	21	134,143
2031	4,675	12,977	360,258	79	396	21	136,000

Projected Values (2022 - 2030):

Col. (10) and Col.(15) represent forecasted energy sales that do <u>not</u> 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: FPL History of Energy Consumption And Number of Customers by Customer Class

(1)	(17)	(18)	(19)	(20)	(21)
		Utility	Net	Average	
	Sales for	Use &	Energy	No. of	Total Average
	Resale	Losses	For Load	Other	Number of
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Customers	Customers
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	5,468	120,745	4,100	4,901,886
2018	6,790	5,604	122,447	4,334	4,961,330
2019	7,315	5,924	125,168	4,749	5,061,525
2020	8,210	5,777	127,519	5,108	5,136,995
2021	6,780	6,222	125,179	5,477	5,214,263

Historical Values (2012 - 2021):

Col. (19) represents actual energy sales <u>including</u> the impacts of existing conservation.

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18). Historical NEL <u>includes</u> the impacts of existing conservation and agrees to Col. (5) on schedule 3.3.

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: Gulf History of Energy Consumption And Number of Customers by Customer Class

((1)	(17)	(18)	(19)	(20)	(21)
			Utility	Net	Average	
		Sales for	Use &	Energy	No. of	Total Average
		Resale	Losses	For Load	Other	Number of
Y	<u>ear</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Customers	Customers
20	012	339	597	11,598	572	434,441
20	013	330	602	11,552	579	437,698
20	014	332	629	12,037	598	442,370
20	015	330	580	11,996	610	447,557
20	016	331	618	12,030	609	453,140
20	017	318	588	11,715	574	459,050
20	018	302	623	12,057	589	464,682
20	019	257	661	11,997	608	464,884
20	020	292	736	11,664	635	470,680
20	021	301	557	11,589	674	477,672

Historical Values (2012 - 2021):

Col. (19) represents actual energy sales <u>including</u> the impacts of existing conservation.

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18). Historical NEL <u>includes</u> the impacts of existing conservation and agrees to Col. (5) on schedule 3.3.

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).

Recommended Plan - Extreme Winter Forecast Schedule 2.3 Forecast of Energy Consumption (Extreme Winter) And Number of Customers by Customer Class

(1)	(17)	(18)	(19)	(20)	(21)
		Utility	Net	Average	
	Sales for	Use &	Energy	No. of	Total Average
	Resale	Losses	For Load	Other	Number of
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Customers	Customers
2022	7,420	6,685	139,924	6,508	5,769,312
2023	7,581	6,737	141,410	6,949	5,849,180
2024	7,563	6,771	142,807	7,247	5,927,728
2025	7,366	6,809	144,127	7,574	6,004,346
2026	7,364	6,865	145,459	7,942	6,079,824
2027	6,970	6,884	146,364	8,355	6,154,797
2028	6,880	6,989	147,958	8,554	6,228,906
2029	6,848	7,071	149,762	8,553	6,301,883
2030	6,864	7,155	151,568	8,553	6,374,242
2031	6,645	7,216	153,368	8,550	6,446,153

Projected Values (2022 - 2030):

Col. (19) represents forecasted energy sales that do <u>not</u> 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).

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 (P50)
And Number of Customers by Customer Class

(1)	(17)	(18)	(19)	(20)	(21)
		Utility	Net	Average	
	Sales for	Use &	Energy	No. of	Total Average
	Resale	Losses	For Load	Other	Number of
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Customers	Customers
2022	7,420	6,350	136,705	6,508	5,769,312
2023	7,581	6,397	138,159	6,949	5,849,180
2024	7,563	6,417	139,388	7,247	5,927,728
2025	7,366	6,463	140,717	7,574	6,004,346
2026	7,364	6,513	141,979	7,942	6,079,824
2027	6,970	6,534	142,790	8,355	6,154,797
2028	6,880	6,634	144,305	8,554	6,228,906
2029	6,848	6,714	146,051	8,553	6,301,883
2030	6,864	6,794	147,801	8,553	6,374,242
2031	6,645	6,854	149,499	8,550	6,446,153

Projected Values (2022 - 2030):

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

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18).

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: FPL History of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
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
2019	24,241	1,292	22,949	0	852	1,579	879	926	22,510
2020	24,499	1,530	22,969	0	845	1,589	887	940	22,767
2021	24,042	1,333	22,709	0	830	1,600	882	956	22,330

Historical Values (2012 - 2021):

Col. (2) and Col. (3) 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. Col. (2) represents the actual Net Firm Demand.

Col. (4) represents "Retail Demand" and is derived by the formula: Col. (2) - Col. (3).

Col. (5) through Col. (9) represent actual DSM capabilities and represent 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 3.1: Gulf History of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
					Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
2012	2,351	76	2,275	0	0	206	0	212	2,351
2013	2,362	74	2,288	0	0	229	0	220	2,362
2014	2,437	75	2,362	0	0	243	0	224	2,437
2015	2,495	78	2,417	0	0	256	0	231	2,495
2016	2,508	76	2,432	0	0	261	0	231	2,508
2017	2,434	74	2,360	0	0	266	0	232	2,434
2018	2,491	80	2,411	0	0	268	0	233	2,491
2019	2,472	75	2,397	0	0	270	0	234	2,472
2020	2,410	65	2,345	0	0	272	0	234	2,410
2021	2,441	68	2,373	0	0	273	0	235	2,441

Historical Values (2012 - 2021):

Col. (2) and Col. (3) are actual values for historical Summer peaks and include the effects of conservation (Col. 7 & Col. 9).

Col. (4) represents "Retail Demand" and is derived by the formula: Col. (2) - Col. (3).

Col. (5) through Col. (9) represent actual DSM capabilities and represent annual (12-month) values.

Col. (10) is derived by the formula Col. (10) = Col. (2) - Col. (6) - Col. (8).

Recommended Plan and Business as Usual Plan Schedule 3.1 Forecast of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
August of					Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management*	Conservation	Management*	Conservation	Demand
2022	27.310	1.497	25.813	0	861	20	937	23	25,469
2023	27,735	1,507	26,228	0	865	35	946	41	25,848
2024	28,136	1,502	26,634	0	870	51	954	60	26,202
2025	28,419	1,445	26,974	0	880	51	963	60	26,466
2026	28,800	1,446	27,354	0	895	51	972	60	26,823
2027	29,103	1,352	27,751	0	913	51	981	60	27,098
2028	29,476	1,338	28,138	0	935	51	991	60	27,440
2029	29,986	1,329	28,657	0	959	51	1,000	60	27,917
2030	30,485	1,335	29,150	0	984	51	1,009	60	28,382
2031	30,924	1,287	29,638	0	1,010	51	1,018	60	28,787

Projected Values (2022 - 2030):

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

Col. (5) through Col. (9) represent cumulative load management, 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 the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

The Summer peak values are the same for both the Recommended (Extreme Winter) and Business as Usual (P50 Winter) plans.

^{*} Res. Load Management and C/I Load Management include Lee County and FKEC whose loads are served by FPL.

Schedule 3.2: FPL History of Winter Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Firm			Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
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	17,031	1,087	15,944	0	742	858	570	352	15,719
2017	17,172	1,098	16,074	0	759	861	577	364	15,836
2018	19,109	1,262	17,847	0	750	864	588	369	17,771
2019	16,795	1,432	15,363	0	706	867	613	379	15,476
2020	17,514	1,243	16,271	0	702	870	614	390	16,197
2021	16,301	1,281	15,020	0	689	872	619	402	14,993

Historical Values (2012 - 2021):

Col. (2) and Col. (3) 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. Col. (2) represents the actual Net Firm Demand.

Col. (4) represents "Retail Demand" and is derived by the formula: Col. (2) - Col. (3).

Col. (5) through Col. (9) represent actual DSM capabilities and represent 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: Gulf History of Winter Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Firm			Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management	Conservation	Management	Conservation	Demand
2012	2,139	70	2,069	0	0	317	0	165	2,139
2013	1,766	90	1,676	0	0	341	0	169	1,766
2014	2,694	85	2,609	0	0	356	0	172	2,694
2015	2,492	74	2,418	0	0	369	0	176	2,492
2016	2,043	80	1,963	0	0	374	0	176	2,043
2017	2,211	89	2,122	0	0	377	0	177	2,211
2018	2,809	70	2,739	0	0	379	0	178	2,809
2019	2,066	66	2,000	0	0	381	0	178	2,066
2020	2,129	69	2,060	0	0	382	0	178	2,129
2021	2,233	63	2,170	0	0	384	0	178	2,233

Historical Values (2012 - 2021):

Col. (2) and Col. (3) are actual values for historical Winter peaks and include the effects of conservation (Col. 7 & Col. 9).

Col. (4) represents "Retail Demand" and is derived by the formula: Col. (2) - Col. (3).

Col. (5) through Col. (9) represent actual DSM capabilities and represent annual (12-month) values.

Col. (10) is derived by the formula Col. (10) = Col. (2) - Col. (6) - Col. (8).

Recommended Plan - Extreme Winter Forecast Schedule 3.2 Forecast of Extreme Winter Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
January of		Firm			Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management*	Conservation	Management*	Conservation	Demand
				_		_			
2022	31,657	1,277	30,380	0	713	5	654	16	30,270
2023	32,201	1,298	30,903	0	723	7	660	27	30,783
2024	32,762	1,325	31,437	0	735	9	667	39	31,312
2025	33,144	1,235	31,909	0	748	9	673	39	31,675
2026	33,623	1,237	32,386	0	771	9	679	39	32,125
2027	34,022	1,154	32,868	0	796	9	684	39	32,494
2028	34,502	1,134	33,368	0	827	9	689	39	32,938
2029	35,007	1,140	33,867	0	859	9	694	39	33,406
2030	35,485	1,131	34,353	0	894	9	699	39	33,844
2031	36,045	1,076	34,969	0	929	9	704	39	34,364

Projected Values (2022 - 2030):

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

Col. (5) through Col. (9) represent cumulative load management, 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 the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

Business as Usual Plan - P50 Winter Forecast Schedule 3.2 Forecast of Winter Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
January of		Firm			Res. Load	Residential	C/I Load	C/I	Net Firm
Year	Total	Wholesale	Retail	Interruptible	Management*	Conservation	Management*	Conservation	Demand
				_		_			
2022	22,551	1,277	21,274	0	713	5	654	16	21,163
2023	22,946	1,298	21,647	0	723	7	660	27	21,527
2024	23,344	1,325	22,019	0	735	9	667	39	21,894
2025	23,590	1,235	22,356	0	748	9	673	39	22,121
2026	23,936	1,237	22,698	0	771	9	679	39	22,438
2027	24,201	1,154	23,047	0	796	9	684	39	22,673
2028	24,545	1,134	23,411	0	827	9	689	39	22,982
2029	24,919	1,140	23,779	0	859	9	694	39	23,318
2030	25,273	1,131	24,142	0	894	9	699	39	23,632
2031	25,681	1,076	24,604	0	929	9	704	39	23,999

Projected Values (2022 - 2030):

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

Col. (5) through Col. (9) represent cumulative load management, 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 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 Lee County and FKEC whose loads are served by FPL.

^{*} Res. Load Management and C/I Load Management include Lee County and FKEC whose loads are served by FPL.

Schedule 3.3: FPL 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)
	Net Energy			Actual				
	For Load	Residential	C/I	Net Energy	Sales for	Utility Use	Actual	
	without DSM	Conservation	Conservation	For Load	Resale	& Losses	Total Retail	Load
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Sales (GWh)	Factor(%)
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	128,555	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	126,678	3,278	2,655	120,745	6,406	5,468	108,871	59.0%
2018	128,465	3,300	2,718	122,447	6,790	5,604	110,053	60.2%
2019	131,241	3,322	2,751	125,168	7,315	5,924	111,929	58.9%
2020	133,642	3,342	2,781	127,519	8,210	5,777	113,531	59.3%
2021	131,342	3,364	2,798	125,179	6,780	6,222	112,177	59.3%

Historical Values (2012 - 2021):

- Col. (2) represents derived NEL not including conservation using the formula: Col. (2) = Col. (3) + Col. (4) + Col. (5)
- Col. (3) & Col. (4) are annual (12-month) DSM values and represent total GWh reductions experienced each year.
- Col. (8) is the Total Retail Sales 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 the greater of Col. (2) from Schedules 3.1 and 3.2 using the formula: Col. (9) = ((Col. (5)*1000) / ((Col. (2) *8760)). Adjustments are made for leap years.

Schedule 3.3: Gulf 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)
	Net Energy			Actual				
	For Load	Residential	C/I	Net Energy	Sales for	Utility Use	Total	
	without DSM	Conservation	Conservation	For Load	Resale	& Losses	Retail Energy	Load
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Sales (GWh)	Factor(%)
2012	12,453	482	374	11,598	339	597	10,663	56.2%
2013	12,502	551	399	11,552	330	602	10,620	55.8%
2014	13,048	595	416	12,037	332	629	11,075	51.0%
2015	13,056	630	430	11,996	330	580	11,086	54.9%
2016	13,097	637	430	12,030	331	618	11,082	54.6%
2017	12,789	642	432	11,715	318	588	10,809	54.9%
2018	13,138	647	435	12,057	302	623	11,132	49.0%
2019	13,083	650	436	11,997	257	661	11,079	55.4%
2020	12,755	653	438	11,664	292	736	10,635	55.1%
2021	12,684	656	438	11,589	301	557	10,731	54.0%

Historical Values (2012 - 2021):

- $\text{Col. (2) represents derived NEL } \underline{\text{not}} \text{ including conservation using the formula: Col. (2) = Col. (3) + Col. (4) + Col. (5)$
- Col. (3) & Col. (4) are annual (12-month) DSM values and represent total GWh reductions experienced each year.
- Col. (8) is the Total Retail Sales 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 the greater of Col. (2) from Schedules 3.1 and 3.2 using the formula:
- Col. (9) = ((Col. (5)*1000) / ((Col. (2) * 8760)). Adjustments are made for leap years.

Recommended Plan - Extreme Winter Forecast Schedule 3.3

Forecast of Annual (Extreme Winter Peak) 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)
	Forecasted Net Energy			Net Energy For Load			Forecasted Total Billed	
	For Load	Residential	C/I	Adjusted for	Sales for	Utility Use	Retail Energy	
	without DSM	Conservation	Conservation	DSM	Resale	& Losses	Sales w/o DSM	Load
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Factor(%)
2022	139,924	46	40	139,837	7,420	6,685	125,818	50.4%
2023	141,410	81	75	141,254	7,581	6,737	127,092	50.1%
2024	142,807	117	111	142,579	7,563	6,771	128,472	49.7%
2025	144,127	117	111	143,899	7,366	6,809	129,952	49.4%
2026	145,459	117	111	145,231	7,364	6,865	131,230	49.3%
2027	146,364	117	111	146,136	6,970	6,884	132,510	49.0%
2028	147,958	117	111	147,730	6,880	6,989	134,089	48.9%
2029	149,762	117	111	149,533	6,848	7,071	135,842	48.6%
2030	151,568	117	111	151,339	6,864	7,155	137,549	48.7%
2031	153,368	117	111	153,140	6,645	7,216	139,506	48.5%

Projected Values (2022 - 2030):

Col. (2) represents Forecasted NEL with the effects of an extreme Winter peak and does \underline{not} include incremental conservation. Col. (2) = Col. (3) + Col. (4) + Col. (5)

Col. (3) & Col. (4) are forecasted values representing reduction of sales from incremental conservation

Col. (5) is forecasted NEL for an extreme Winter peak that includes incremental conservation. Col. (5) = Col (2) - Col (3) - Col (4)

Col. (8) is Total Retail 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. (5) from this page and Col. (10) from Schedule 3.1 using the formula: Col. (9) = ((Col. (5)*1000) / ((Col. (2)*8760)). Adjustments are made for leap years.

Business as Usual Plan - P50 Winter Forecast 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)
	Forecasted Net Energy			Net Energy For Load			Forecasted Total Billed	
	For Load	Residential	C/I	Adjusted for	Sales for	Utility Use	Retail Energy	
	without DSM	Conservation	Conservation	DSM	Resale	& Losses	Sales w/o DSM	Load
<u>Year</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	<u>GWh</u>	Factor(%)
2022	136,705	46	40	136,619	7,420	6,350	122,936	57.1%
2023	138,159	81	75	138,003	7,581	6,397	124,181	56.8%
2024	139,388	117	111	139,159	7,563	6,417	125,407	56.5%
2025	140,717	117	111	140,489	7,366	6,463	126,888	56.3%
2026	141,979	117	111	141,751	7,364	6,513	128,102	56.2%
2027	142,790	117	111	142,562	6,970	6,534	129,287	55.9%
2028	144,305	117	111	144,077	6,880	6,634	130,791	55.8%
2029	146,051	117	111	145,823	6,848	6,714	132,489	55.4%
2030	147,801	117	111	147,573	6,864	6,794	134,143	55.3%
2031	149,499	117	111	149,271	6,645	6,854	136,000	55.1%

Projected Values (2022 - 2030):

Col. (2) represents Forecasted NEL and does not include incremental conservation. Col. (2) = Col. (3) + Col. (4) + Col. (5)

Col. (3) & Col. (4) are forecasted values representing reduction on sales from incremental conservation

Col. (5) is forecasted NEL and includes incremental conservation.

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

 $Col.\ (9)\ is\ calculated\ using\ Col.\ (5)\ from\ this\ page\ and\ Col.\ (10)\ from\ Schedule\ 3.1\ using\ the\ formula:$

Col. (9) = ((Col. (5)*1000) / ((Col. (2) * 8760)). Adjustments are made for leap years.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)		
	2021 ACTU		2022 FORECA		2023 FORECA			
	Total		Total		Total	Total		
	Peak Demand	NEL	Peak Demand	NEL	Peak Demand	NEL		
<u>Month</u>	MW	GWh	MW	GWh	MW	GWh		
JAN	16,284	8,579	NA	NA	NA	NA		
FEB	18,503	8,600	NA	NA	NA	NA		
MAR	20,031	9,542	NA	NA	NA	NA		
APR	21,074	9,813	NA	NA	NA	NA		
MAY	22,962	11,368	NA	NA	NA	NA		
JUN	22,373	11,466	NA	NA	NA	NA		
JUL	23,845	12,373	NA	NA	NA	NA		
AUG	24,042	12,879	NA	NA	NA	NA		
SEP	22,350	11,457	NA	NA	NA	NA		
OCT	22,485	11,159	NA	NA	NA	NA		
NOV	17,062	8,618	NA	NA	NA	NA		
DEC	17,848	9,326	NA	NA	NA	NA		
Annual Va	alues:	125,179		NA		NA		

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

 ${\sf Cols.}\,(4)\, through\, (7)\, do\, \underline{not}\, include\, the\, impacts\, of\, cumulative\, load\, management,\, incremental\,\, utility\, conservation,\, or\, incremental\,\, load\, management.$

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	2021 ACTUAL			2022 FORECAST		2023 FORECAST	
	Total		Total	Total			
	Peak Demand	NEL	Peak Demand	NEL	Peak Demand	NEL	
<u>Month</u>	MW	GWh	MW	GWh	MW	GWh	
JAN	1,958	923	NA	NA	NA	NA	
FEB	2,233	849	NA	NA	NA	NA	
MAR	1,618	818	NA	NA	NA	NA	
APR	1,712	790	NA	NA	NA	NA	
MAY	1,950	966	NA	NA	NA	NA	
JUN	2,225	1,139	NA	NA	NA	NA	
JUL	2,441	1,245	NA	NA	NA	NA	
AUG	2,390	1,246	NA	NA	NA	NA	
SEP	2,206	1,056	NA	NA	NA	NA	
OCT	2,022	956	NA	NA	NA	NA	
NOV	1,534	774	NA	NA	NA	NA	
DEC	1,542	827	NA	NA	NA	NA	
Annual Values:		11,589		NA		NA	

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

Cols. (4) through (7) do $\underline{\text{not}}$ include the impacts of incremental conservation.

Recommended Plan - Extreme Winter Forecast Schedule 4

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	2021		2022		2023	2023	
	ACTUA	N L	FORECAST		FOREC	FORECAST	
	Total		Total		Total		
	Peak Demand	NEL	Peak Demand	NEL	Peak Demand	NEL	
<u>Month</u>	MW	GWh	MW	GWh	MW	GWh	
JAN	NA	NA	31,657	13,210	32,201	13,437	
FEB	NA	NA	20,521	9,150	20,869	9,280	
MAR	NA	NA	20,613	10,057	20,949	10,158	
APR	NA	NA	22,062	10,523	22,421	10,646	
MAY	NA	NA	24,635	11,954	25,015	12,102	
JUN	NA	NA	26,336	12,819	26,743	12,930	
JUL	NA	NA	26,776	13,732	27,198	13,860	
AUG	NA	NA	27,310	13,707	27,735	13,854	
SEP	NA	NA	26,241	12,700	26,648	12,802	
OCT	NA	NA	24,290	11,900	24,664	11,974	
NOV	NA	NA	21,268	10,003	21,615	10,114	
DEC	NA	NA	20,195	10,168	20,527	10,254	
Annual Values	::	NA		139,924		141,410	

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

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

Business as Usual Plan - P50 Winter Forecast Schedule 4 Previous Year Actual and Two-Year Forecast of Total Peak Demand and Net Energy for Load (NEL) by Month

(1)	(2)	(3)	(4)	(5)		(6)	(7)
	2021		2022			2023	
	ACTUAL Total		FORECAST Total			FORECAST Total	
					_		
	Peak Demand	NEL	Peak Demand	NEL		Peak Demand	NEL
<u>Month</u>	MW	GWh	MW	GWh	_	MW	GWh
JAN	NA	NA	22,551	10,053	23.31%	22,946	10,250
			,	,			,
FEB	NA	NA	20,521	9,146	0.05%	20,869	9,275
MAR	NA	NA	20,613	10,052	0.05%	20,949	10,153
APR	NA	NA	22,062	10,518	0.05%	22,421	10,641
MAY	NA	NA	24,635	11,948	0.05%	25,015	12,096
JUN	NA	NA	26,336	12,813	0.05%	26,743	12,924
JUL	NA	NA	26,776	13,726	0.05%	27,198	13,853
AUG	NA	NA	27,310	13,701	0.04%	27,735	13,847
SEP	NA	NA	26,241	12,695	0.04%	26,648	12,797
OCT	NA	NA	24,290	11,896	0.04%	24,664	11,970
NOV	NA	NA	21,268	10,000	0.04%	21,615	10,110
DEC	NA	NA	20,195	10,163	0.05%	20,527	10,249
Annual Values	:	NA		136,709			138,166

Col. (3) annual value shown is consistent with the value shown in Col.(5) of Schedule 3.3 for the Business as Usual Plan.

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

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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 which was used during 2021 and early 2022 to develop the resource plans for FPL's system that are presented in this 2022 Site Plan. It also discusses some of the key assumptions, in addition to a new load forecast discussed in the previous chapter, which were used in developing this resource plan.

Four Fundamental Steps of FPL's Resource Planning:

The four fundamental steps of FPL's resource planning process 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 projected resource needs (*e.g.*, identify competing options and resource plans);
- Step 3: Evaluate the competing options and resource plans based on 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 IRP Process: Fundamental Steps

Fundamental IRP Steps Load forecast update (1) Determine the magnitude and timing of new resource Updating of System needs other forecasts, reliability data, and analyses assumptions (2) Identify DSM and Preliminary analyses of Preliminary analyses of individual DSM options generation resource generation options options, perform preliminary analyses, Packaging of DSM and develop resource options plans which can meet the determined magnitude and timing of resource needs Develop resource plans for system analyses (3) Evaluate the competing resource System economic and plans based on non-economic analyses system economics of competing resource and non-economic plans factors (4) Finalize Integrated Commitment Resource Plan & Finalize Integrated to near-term Resource Plan commit to near-term options options

Figure III.A.1: Overview of IRP Process

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

The first of the four resource planning steps is essentially a determination of the amount and timing of 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: 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's process also includes key sets of projections regarding three specific types of resources: (1) generating unit capacity changes, (2) firm capacity power purchase agreements (PPAs), and (3) DSM implementation.

Key Assumptions Regarding the Three Types of Resources:

Generating Unit Capacity Additions:

The first set of assumptions, generating unit capacity changes, is based on current projections of new generating capacity additions and planned retirements of existing generating units. In this 2022 Site Plan, there are five (5) types of projected generation 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 Facilities:

In this 2022 Site Plan, the Recommended resource plan projects the addition of approximately 9,462 MW of new solar PV generation during the 2022 through 2031 time period. These PV additions are projected to be sited throughout FPL's service area and are consistent with 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. These projected solar additions for 2022 through 2031, when combined with solar additions made prior to 2021, will result in a total of approximately 12,626 MW of total installed PV by the end of 2031.

Of the 9,462 MW of total PV projected to be added from 2022-2031, approximately 2,235 MW is "fixed-tilt" solar, while the remaining 7,227 MW is "tracking" solar. In fixed-tilt solar configurations, the solar panels remain facing the same angle, while tracking solar changes the angle of the solar panels to follow the path of the sun during the day, generally resulting in greater annual energy production. This shift towards tracking technology in solar is being driven primarily by continued cost declines in tracking technology and the identification of more sites suitable for solar tracking facilities.

2) Additional Battery Storage:

At the end of 2021, a battery storage facility with a projected maximum output of 409 MW was placed in-service at the existing Manatee plant site. This large battery storage facility is charged by solar energy from an existing nearby PV facility. Another 60 MW of battery storage, consisting of two 30 MW battery storage facilities installed at two different locations in the FPL service area, were also put into service at the end of 2021. Both 30 MW battery storage facilities are also charged by existing solar facilities. In addition, the Recommended resource plan presented in this Site Plan projects that an additional 3,200 MW of battery storage facilities will be installed by 2031 throughout FPL's service area.

3) Retirement of Existing Generating Units:

As discussed in FPL's 2021 Site Plan, the retirement of FPL's ownership portion (approximately 76%) of the coal-fueled Scherer Unit 4 unit in Georgia occurred on 1/1/2022. FPL's ownership portion of this unit was approximately 630 MW. Additionally, an early retirement of FPL's ownership portion of two coal-fueled steam units by January 2024 is also planned. These units, Daniel Units 1 & 2, are located in the Mississippi Power service territory, and FPL's 50% ownership interest in the two units totals approximately 500 MW. Finally, the coal-fueled Scherer 3 plant (also located in Georgia) will be retired by the end of 2028. FPL's 25% ownership portion of this unit is approximately 215 MW.

4) Enhancements of Existing Generating Units:

In its 2021 Site Plan, FPL discussed plans to upgrade the combustion turbine (CT) components in several of FPL's existing CC units. That upgrade effort is still included in the resource plan presented in this Site Plan. These additional upgrades are projected to be completed by 2026. Additional upgrades have also been identified that will increase the Winter MW ratings for several of FPL's units as part of the Recommended resource plan. Information regarding the specific units, timing, and magnitude of these upgrades is presented in Schedule 8 in this chapter.

In addition, FPL is planning a pilot project that will result in hydrogen replacing a portion of the natural gas that is currently being used to fuel the existing Okeechobee CC unit. In the pilot project, hydrogen will be created by using solar energy, or other energy from the electric grid, to power an electrolyzer that separates water into hydrogen and oxygen (If the hydrogen is created using only solar or other renewable energy sources, the hydrogen is referred to as "green" hydrogen). The resulting hydrogen will be stored in on-site tanks until it is used as a fuel. The objective of the pilot project is to test, in practice, the concept of replacing natural gas with hydrogen as a fuel for CC unit use. If successful, the pilot project is expected to guide the way for future use of hydrogen in a larger way as a fuel in FPL's fleet of CC units, thus lowering or eliminating carbon emissions from FPL's fleet of CC units in the future. This pilot project is projected to go into service in late 2023.

5) Addition of Cost-Effective Natural Gas-Fueled Generation:

In its 2021 Site Plan, FPL's resource plan projected the addition of one new CC unit - the previously mentioned DBEC CC unit that will come in-service in 2022. This unit is a key component of the modernization of FPL's existing Lauderdale power plant site, and it remains part of the resource plan in the 2022 Site Plan.

Firm Capacity PPAs:

The second set of assumptions involves other firm capacity power purchase agreements (PPAs). These assumptions are generally consistent with those presented in FPL's 2021 Site Plan.

The most significant firm capacity PPA is the Shell PPA with which FPL receives 885 MW of firm capacity and energy from a CC unit in Alabama. That PPA is scheduled to terminate in May of 2023. Alabama Power has received approval from the Alabama Public Service Commission to acquire this generating unit.

In order to provide additional firm resources for the Winter of 2021/2022, FPL contracted 160 MW of firm capacity from the Hillabee Plant in Tallapoosa, AL, as well as 320 MW of firm capacity from the Oleander plant in Brevard County, FL. Both of these PPAs expired at the end of February 2022.

The remaining projected firm capacity purchases for both areas are from independent power producers. Details for these other purchases, including the annual total capacity values, are presented in Chapter I in Tables I.A.3.2, I.A.3.3, I.B.3.2, and I.B.3.3. These purchased firm capacity amounts were incorporated in the resource planning work that led to the resource plan presented in this document.

DSM Implementation:

The third set of assumptions involves a projection of the amount of incremental DSM that FPL anticipates implementing annually over the ten-year reporting period of 2022 through 2031 for this Site Plan. In 2019, the Florida Public Service Commission (FPSC) set DSM Goals for FPL, Gulf, and other Florida utilities that addressed the years 2020 through 2024. The annual amounts of Summer MW reduction, Winter MW reduction, and energy (MWh) reduction for the FPL and Gulf areas established in the FPSC's DSM Goal's order (Order No. PSC-2019-0509-FOF-EG) and implemented with FPL's 2022-2024 Integrated DSM Plan (Order Nos. PSC-2021-0421-PAA-EG and PSC-2021-0452-CO-EG) through 2024 are accounted for in the resource plan presented in this Site Plan. For the years 2025 through 2029, the annual DSM levels proposed in the DSM Goals docket separately by FPL- because they were projected to be cost-effective at the time of the filing - are also accounted for in the resource plan presented in this Site Plan. Incremental DSM amounts for the year 2030 and 2031 for FPL, commensurate with the utility's projected DSM annual additions for 2025 through 2029, have been assumed as well. Those annual amounts are shown in Schedules 3.1, 3.2, and 3.3 in Chapter II.

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

FPL's resource planning process applies these key assumptions, plus the other updated information described above, in the first fundamental step: determining the magnitude and timing of 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 (TRM) of 20% (FPL applies this criterion to both Summer and Winter peaks, with an exception for its Extreme Winter planning as noted later in this chapter) 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 are used to perform system reliability analyses. Among the most widely used is loss-of-load probability (LOLP), which FPL's resource planning group 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. The standard for LOLP used by FPL's resource planning group is a maximum of 0.1 day per year which is commonly accepted throughout the industry. 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 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. In other words, it matters what resources are used to meet a reserve margin criterion such as 20%. Therefore, in 2014 FPL implemented a minimum GRM criterion of 10% as a third reliability criterion in its resource planning process.

The 10% minimum Summer and Winter GRM criterion augments the other two reliability criteria that FPL's resource planning group uses: the 20% TRM 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 (solar, battery storage, etc.) and DSM resources that should be added to maintain and enhance system reliability.

Determining Resource Needs to Serve Load in Extreme Winter Conditions:

In response to the extreme Winter weather experienced in Texas in February 2021, FPL began planning for possible extreme Winter peaks in its service area as discussed in the Executive Summary. Then, as discussed in Chapter II, FPL developed an extreme Winter peak load forecast at a level much higher than its normal P50 Winter load forecast for purposes of planning for extreme Winter peaks. For FPL's Recommended resource plan (which plans for this extreme Winter load), FPL adds resources to meet this peak load exactly, without any additional reserves. For FPL's Business as Usual resource plan, a P50 Winter load forecast and a 20% minimum reserve margin criterion continue to be used for Winter planning. Because of the additional resources added in the Recommended resource plan to meet the higher forecasted load, this resource plan also meets a 20% minimum reserve margin criterion if applied to a P50 Winter load forecast.

Step 2: Identify Resource Options and Plans That Can Meet the Determined Magnitude and Timing of Projected 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's resource planning group typically utilizes 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 Conservation, Planning, and Forecasting (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 in order to minimize the probability of paying incentives to customers who would have implemented a DSM measure anyway without a utility incentive (*i.e.*, free riders). 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 a proprietary 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 is utilized is a proprietary linear programming (LP) model with which DSM portfolios are developed.

The next step is typically to "package" 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 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, different combinations of new resource options (*i.e.*, resource plans) of a magnitude and timing necessary to meet the projected resource needs are identified.

Step 3: Evaluate the Competing Options and Resource Plans Based on 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 resource plans that each meet the magnitude and timing of projected 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 utility system from the competing resource options/resource plans. FPL's resource planning

group typically utilizes the AURORA optimization model to develop and perform the system economic analyses of resource plans. Other spreadsheet models may also be used 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 electricity rate levels, with the general objective of minimizing the 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's resource planning group 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. These factors are often referred to as "system concerns or factors," which include maintaining/enhancing fuel diversity and maintaining a regional balance between load and generating capacity, particularly in the Southeastern Florida region of FPL's area that consists of Miami-Dade and Broward counties. In conducting the evaluations needed to determine which resource options and resource plans are best for the utility 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 the Current Resource Plan

The results of the previous three fundamental steps are typically used to develop a new or updated resource plan. The current resource plan presented in this 2022 Site Plan is summarized in the following section.

III.B. Projected Incremental Resource Changes in the Resource Plan

The projection of major changes in the Recommended resource plan, including both utility-owned generation and PPAs, for the years 2022 through 2031 is summarized in Table ES-2 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 projected resource needs and the resource plans, the projected DSM additions are consistent with the recent DSM Goals order regarding the FPL and Gulf Integrated DSM Goals through the year 2024. In addition, previously projected cost-effective amounts of DSM for the years 2025 through 2031 are also assumed. Thus, DSM impacts are fully accounted for in each of the resource plans in this Site Plan.

A summary of some of the larger resource additions/retirements include those listed below (in approximate chronological order):

- In the Recommended Plan, new solar (PV) additions from 2022 through 2031 of approximately 9,462 MW (nameplate);
- A new transmission line (the NFRC line) by mid-2022 enabling a bidirectional transfer capability between FPL and FPL Northwest Florida of up to 850 MW;
- The modernization of the existing Lauderdale power plant site in mid-2022 with the new DBEC Unit 7 CC (approximately 1,267 MW);
- Expiration (as per terms of the contract) of 885 MW from the Shell PPA in May 2023;
- The retirement of FPL's ownership portion of the coal-fueled Daniel Units 1 & 2 (approximately 500 MW) by the beginning of 2024;
- Capacity upgrades at several of FPL's existing CC units through 2026;
- In the Recommended Plan, approximately 700 MW of Winter-only upgrades at several of FPL's existing CC units:
- The retirement of FPL's 25% ownership portion of the coal-fueled Scherer Unit 3 (approximately 215 MW) by the end of 2028; and,
- In the Recommended Plan, a total of approximately 3,200 MW of battery storage in 2025 through 2031.

With the exception of certain resource additions and retirements listed above in the earlier years of the 2022 through 2031 time period addressed in this 2022 Site Plan, FPL notes that final decisions on other resource options shown in this Site Plan are not needed at this time, nor have they been made. This is particularly relevant to resource additions shown for years increasingly further out in the 10-year reporting period. Consequently, those resource additions are more prone to future change.

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

In considering the resource plans presented in this Site Plan, it is useful to note that there are at least seven (7) 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 continue 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 capacity additions since the year 2000 (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 was further enhanced by decisions to proceed with two other projects. First, the Corbett-Sugar-Quarry (CSQ) transmission line was added in mid-2019. This new line significantly increased 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 additional 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 2021, FPL (including FPL's Northwest FL division) used natural gas to generate approximately 74% of the total electricity it delivered to its customers. By 2031, due largely to

significant solar additions, the percentage of electricity generated by natural gas for FPL's system is projected to decrease to approximately 61% based on the Recommended resource plan presented in this Site Plan. Due to this reliance on natural gas, as well as evolving environmental regulations, opportunities to economically maintain and enhance fuel diversity are continually sought, 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 solar and battery storage. Consequently, FPL does not believe that new advanced technology coal units are viable fuel diversity enhancement options in Florida.

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, (iv) using natural gas more efficiently, and (v) expanding the ability of its units to burn liquid fuel as a backup to natural gas. FPL is also conducting a pilot project to test the concept of using green hydrogen as a substitute for some of the natural gas now being used to fuel one of its existing CC units. This pilot project was also discussed in the Executive Summary.

<u>Solar Energy:</u> The Recommended resource plan in this 2022 Site Plan projects that FPL will have a total of approximately 12,626 MW of PV generation by the end of 2031. Such a level of PV nameplate capacity would represent about 33% of FPL's current total installed capacity (MW). However, the impact of PV contribution in terms of actual energy produced (MWh) is smaller. Because solar energy can only be generated during daylight hours and is impacted by factors such as clouds and rain, PV has a capacity factor of approximately 23% to 30% in the state of Florida. As a result, FPL's solar additions would be projected to supply approximately 18.7% of the total energy (MWh) delivered in 2031 (as shown in Schedule 6.2 later in this chapter).¹⁶

¹⁶ For perspective, approximately 625 MW of PV (if added in 2022) and approximately 680 MW of PV (if added in 2031) will account for 1% of total energy delivered on FPL's system in those years.

Based on the Recommended resource plan presented in this 2022 Site Plan, it is projected that the cleanest energy sources such as low-emission natural gas, zero-emission nuclear, and zero-emission solar — will provide approximately 99% of all energy produced in FPL's system in 2031 - with zero-emission sources (including new solar facilities that are associated with FPL's Solar Together program¹⁷) alone providing approximately 38% of all energy produced by the system in 2031. This percentage of energy that is projected to be delivered by zero-emission sources is significant for a utility system of FPL's size, especially when considering that the total amount of energy projected to be delivered to customers in 2031 will have also increased. The projections of energy by fuel/generation type are presented in Schedules 6.1 and 6.2 later in this chapter.

<u>Nuclear Energy:</u> 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. Additional uprates followed which resulted in approximately 40 MW more capacity. FPL's customers are currently benefitting from lower fuel costs and reduced system emissions provided by this additional nuclear capacity.

In June 2009, FPL began work to obtain all 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 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 has paused in its determination of whether to seek FPSC approval to move forward with construction of the new nuclear units. FPL intends to incorporate into any such assessment the construction experience of two nuclear units currently being constructed by Georgia Power at its Vogtle site, and similar units developed and operating in China. As a result, the earliest possible in-service dates for Turkey Point 6 & 7 are beyond the 2022 through 2031 time period addressed in this docket. This Site Plan continues to present the Turkey Point location as a Preferred Site for nuclear generation as indicated in Chapter IV.

¹⁷ In the Solar Together community solar program, participating customers share in the costs and benefits of a dedicated FPL Solar Together PV facility, and the environmental attributes associated with their participation are retired by FPL on their behalf.

On January 30, 2018, FPL applied to the NRC for Subsequent License Renewal (SLR) for FPL's existing Turkey Point Units 3 & 4. The previous license terms for these two existing nuclear units extended into the years 2032 and 2033, respectively. The SLR requested approval to extend the operating licenses by 20 years to 2052 and 2053, respectively. The NRC granted approval for the SLR in December 2019. On February 24, 2022, the NRC reversed its adjudicatory decision interpreting environmental rules related to SLRs. In particular, the NRC concluded that its environmental review under the National Environmental Policy Act was insufficient. With this action, the NRC directed its staff to amend the Turkey Point Units 3 & 4 operating licenses by removing the 20-year term of licensed operation added by the SLR, thereby restoring the previous operating license expiration dates of 2032 and 2033 for Turkey Point Units 3 & 4, respectively.

Other than this change to the expiration dates, the subsequently renewed operating licenses remain in place. This decision, together with an associated decision by the NRC that applies to all SLR applications nationwide, provide that SLR applicants, instead of relying on the NRC's existing generic Environmental Impact Statements (EIS) for license renewal, may satisfy the environmental review requirements either by requesting the NRC Staff to proceed with an entirely site-specific EIS or by waiting for the NRC to issue a new generic EIS that will apply specifically to SLR applications, which the NRC has directed the NRC Staff to initiate. This action does not affect the NRC's review of the safety aspects of FPL's application, and prior site-specific findings in the existing EIS still support an extended license period in any subsequent proceeding. FPL is evaluating the NRC's decisions to determine the next steps in license renewal process for these units. For purposes of this Site Plan filling, FPL's resource planning analyses have assumed the continued operation of Turkey Point Units 3 & 4, respectively.

In the 3rd Quarter of 2021, FPL applied to the NRC for an SLR for its existing St. Lucie nuclear Units 1 & 2. If approved by the NRC, the SLRs for St. Lucie Units 1 & 2 will extend the licenses for those facilities for an additional 20 years; until 2056 and 2063, respectively. The NRC is currently scheduled to make a decision on FPL's SLR request for the St. Lucie units by mid-2023, but those dates are likely to be delayed somewhat as the NRC revises its generic EIS for license renewal in response to their recent Turkey Point SLR decision.

<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 Federal Energy Regulatory Commission (FERC) certificate of approval on February 2, 2016. This pipeline system utilizes an independent route that results in a more reliable, economic, and diverse natural gas supply for FPL customers and the State of Florida. FPL also has access to gas transportation capacity on the Gulf South Pipeline Company, LP (Gulf South), and the Florida Gas Transmission Company, LLC (FGT) pipelines to serve plants in the Northwest Florida region.

<u>Using natural gas more efficiently:</u> FPL has sought ways to utilize natural gas more efficiently for years. Since 2008, after receiving FPSC approval, FPL modernized the following plant sites by retiring older steam generating units and replacing them with new, highly efficient CC units: Cape Canaveral, Riviera Beach, and Port Everglades. This improved efficiency is graphically shown in Figure ES-2 in the Executive Summary.

Similarly, the modernization of the Lauderdale site in 2022 will also enhance FPL's ability to utilize natural gas more efficiently. The modernization project is well underway a new fuel-efficient CC unit will be added this year at the same site: DBEC Unit 7. Part of the decision to proceed with the modernization of the Lauderdale site was the projection that the total amount of natural gas that will be used on FPL's 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.

<u>Dual-fuel capability at existing units</u>: Efforts are being made to maintain the ability to utilize ultra-low sulfur distillate (ULSD) oil at existing units that have that capability. Four new CTs were added at the Gulf Clean Energy Center in late 2021; these units have the capability to burn either natural gas or ULSD fuel oil. FPL is also beginning efforts to add the ability to burn ULSD at its Fort Myers 2 CC and its Manatee 3 CC to be better prepared for circumstances such as extreme Winter weather.

In the future, FPL's resource planning group will continue to identify and evaluate alternatives that may maintain or enhance system fuel diversity.

3. Maintaining an Appropriate 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, particularly at times of extreme load. 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 and is one that will continue to be examined in ongoing resource planning work.

4. The Significant Impacts of Federal and State Energy-Efficiency Codes and Standards:

As discussed in Chapter II, the load forecasts for both the FPL and Gulf areas include projected impacts from federal and state energy-efficiency codes and standards. The magnitude of energy efficiency that is currently projected to be delivered to customers of the single, integrated system through these codes and standards is significant.

Current projections are that a cumulative Summer peak reduction impact of 5,899 MW, from these codes and standards beginning in 2005 (the year the National Energy Policy Act was enacted) and extending through 2031 (*i.e.*, the last year in the 2022 through 2031 reporting time period for this Site Plan), will occur 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 from the end of 2021 through 2031 is the equivalent of an approximate 16% reduction compared to what the projected peak load would have been without the codes and standards. Regarding annual energy, the cumulative reduction attributed to the impact of the codes and standards from 2005 to 2031 is projected to reach 11,367 GWh since 2005. This reduction is the equivalent of an approximate 7% reduction compared to what the projected annual energy would have been without the codes and standards. The significant impacts of these energy-efficiency codes and standards, from a 2005 starting point, for the years 2022 - 2031 are presented in the table below.

Table III.C.4.1: Projected FPL System Codes and Standards Impact

Table III.C.4.1

	Codes and Standards Impact							
	FPL							
	Summer	Winter	Annual					
	Peak	Peak	Energy					
	(MW)	(MW)	(GWh)					
2022	4,544	686	8,054					
2023	4,731	730	8,397					
2024	4,871	783	8,897					
2025	5,047	830	9,286					
2026	5,219	877	9,682					
2027	5,393	923	10,042					
2028	5,580	960	10,355					
2029	5,643	994	10,638					
2030	5,705	1,039	10,996					
2031	5,899	1,054	11,367					

In addition to lowering the load forecast from what it otherwise would have been, and thus serving to lower projected load and resource needs, this projected energy efficiency from the codes and standards also affects resource planning in another way: it lowers the potential market for utility DSM programs to cost-effectively deliver energy efficiency. This fact was also prominently discussed in the 2019 DSM Goals docket in which DSM Goals were set for the years 2020 through 2024.

5. The trends of decreasing costs for fuel, decreasing costs for new generating units, and increasing fuel efficiency of new generating units:

There are two main factors that drive future utility system costs for its fossil-fueled generation fleet: (i) forecasted natural gas costs, and (ii) the efficiency with which generating units convert fuel into electricity. The trends for these factors are in a direction that results in lower fuel-related costs for FPL's customers. Even though certain factors have caused a recent increase in natural gas prices, the natural gas price forecast used in FPL's 2022 resource planning work projects lower overall natural gas prices than the natural gas price forecast used in FPL's 2021 resource planning work.

Regarding the fuel efficiency of FPL's fossil-fueled generating units, the amount of natural gas (measured in mmBTU) needed to produce a kWh of electricity has declined from approximately 9,621 in 2001 to approximately 7,079 in 2021 as shown in Figure ES-2 in the Executive Summary. This improvement of approximately 26% in fuel efficiency is truly significant, especially when considering the 20,000 MW-plus magnitude 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 to lower FPL's electric rates ¹⁸.

6. Projected changes in CO₂ regulation and associated compliance costs:

Since 2007, FPL has evaluated potential carbon dioxide (CO₂) regulation and/or legislation and has utilized projected compliance costs for CO₂ emissions from the consultant ICF 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. Due to questions regarding federal policy stemming from a new administration and potential legislative action by the U.S. Congress, the uncertainty around projected CO₂ compliance costs persisted in late 2021 and early 2022 when FPL froze assumptions and forecasts for its 2022 resource planning work. Because of the continued uncertainty, and after consulting with ICF, FPL is using the same forecast of potential CO₂ compliance costs in its 2022 resource planning work that it used in its 2021 work.

7. Cost uncertainty regarding future solar and battery additions:

As this Site Plan is being finalized, there is enhanced uncertainty regarding the cost of solar and battery facilities, especially in the near-term. This uncertainty is driven by several factors including supply chain problems, tariffs, and increased inflation, all of which could increase solar and/or battery costs. On the other hand, the potential new federal tax credits discussed in the Executive Summary could significantly lower the net cost of new solar and/or batteries both directly, and indirectly over the long-term by increasing the demand for these products.

8. Projected increases in electric vehicle (EV) adoption:

FPL's current load forecast includes a higher projection of EV adoption than the load forecast used to develop the resource plan in the 2021 Site Plan. This results in projections of both higher annual MWh usage and higher Summer peak hour MW load than was the case in the last Site Plan as discussed further in Chapter II of this document. Both the higher MWh and peak hour MW impacts will have resource planning implications.

¹⁸ However, because the potential benefits of utility demand-side management (DSM) programs are based on DSM's ability to avoid utility system costs such as those described above, the trend of steadily decreasing FPL system costs automatically results in a significant lowering of the cost-effectiveness of utility DSM.

III.D Demand Side Management (DSM)

FPL has sought and implemented cost-effective DSM programs since 1978. As such, cost-effective DSM has been a key focus of FPL's resource planning work for more than 40 years. During that time, FPL's DSM programs have included many energy efficiency and load management programs and initiatives. Similarly, Gulf has also pursued cost-effective DSM for decades.

DSM Goals were set for FPL, Gulf, and other Florida utilities in November 2019. As discussed in FPL's testimony in the 2019 DSM Goals filing that led to these Goals being set, there are several important market forces 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 Chapters I and II, and earlier in Section III.C above, the projected incremental impacts of these energy-efficiency codes and standards during the 2022 through 2031 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 discussed in FPL's DSM Goals Testimony is FPL's lower generating costs with which DSM must compete. There are several reasons for these lower generating costs. One of these is lower fuel costs, particularly lower natural gas costs. As fuel costs decline, the benefit realized by each kWh of energy reduced by DSM is also reduced. As a result, the benefit from DSM's kWh reductions has been significantly reduced from what it had been when Florida previously established DSM Goals. Fuel prices have been steadily decreasing over the past decade, and even though short-term factors have caused a recent spike in natural gas prices, the long-term natural gas price forecast used in FPL's 2022 planning is overall lower than the natural gas price forecast used in FPL's 2021 planning. Lower natural gas costs are very beneficial for FPL's customers because they result in lower fuel costs and lower electric rates. But, at the same time, lower fuel costs also result in lower potential fuel savings benefits from the kWh reductions of DSM measures, therefore reducing the cost-effectiveness of DSM.

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 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 2022 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 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.

For resource planning purposes, the DSM Goals set for both FPL and Gulf (now FPL Northwest Florida) through 2024 are accounted for in this Site Plan. In addition, the annual DSM levels proposed separately by FPL for the years 2025 through 2029 in the DSM Goals docket are accounted for in this Site Plan because these annual levels of DSM were projected to be cost-effective during the DSM Goals docket. Incremental DSM amounts for the years 2030 and 2031 for FPL, commensurate with the utility's projected DSM annual additions for 2025 through 2029, have been assumed as well.

In August 2021, FPL submitted to the FPSC an Integrated DSM plan to meet the combined goals for FPL and Gulf as established by the Commission in 2019. The Integrated DSM Plan was approved in November 2021 (Order No. PSC-2021-0452-PAA-EG) and is designed to achieve the combined goals through 2024. A summary of the programs for the Integrated DSM Plan is provided below.

DSM Programs and Research & Development Efforts In FPL's Integrated DSM Plan

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, system emergencies, or for system frequency regulation.

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.

10. Commercial Curtailable Load Program

This program allows FPL to request curtailment of customer loads with a minimum commitment of 4,000 kW of Non-Firm Demand during periods of capacity shortages or system emergencies. The program was closed to new participants December 31, 2021.

11. 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.

12. Business Heating, Ventilating and Air Conditioning (HVAC)

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

13. Business Lighting

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

14. Business Custom Incentive (BCI)

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

15. 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.

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 (TLSA). There are two such lines in the FPL system for this 10-year reporting period.

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

	rabio iliiziri ziot di i repededa i divoi zinice									
(1)	(2)	(3)	(4)	(5)	(6)	(7)				
			Line	Commercial	Nominal					
Line	Terminals	Terminals	Length	In-Service	Voltage	Capacity				
Ownership	(To)	(From)	СКТ.	Date (Mo/Yr)	(KV)	(MVA)				
-			Miles							
FPL	Levee 1/	Midway	150	June/2030	500	2598				
FPL	Sweatt Tran 2/	Whidden	79	Dec/2025	230	1195				

^{1/} Final order certifying the corridor was issued in April 1990. Construction of 139 miles is complete and in-service.

In addition, there will be a 161 kV transmission line addition that connects the FPL and FPL Northwest Florida (former Gulf) areas which will allow an enhanced level of economic energy transfer between the two areas. The two substation terminals are Raven (FPL area) and Sinai

^{2/} Need Determination for the Whidden Transmission to Sweatt project will be filed in April 2022. The project is scheduled to be completed by December 2025.

Cemetery (FPL Northwest Florida area). The new line, named the North Florida Resiliency Connection (NFRC) line, is projected to be in-service by June 2022.

There will also be transmission facilities needed to connect several projected generation capacity additions to the system transmission grid in the FPL system. These transmission facilities are described on the following pages. Other generation capacity additions, such as the Dania Beach Clean Energy Center Unit 7 in mid-2022, will not require new transmission lines. Sites for longer term additions, such as projected PV additions for 2024 and beyond, have not yet been definitively determined so no transmission analyses for these additions have been performed.

III.E.1 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.E.2 Transmission Facilities for the Everglades Solar Energy Center in Miami-Dade County

The work required to connect the approximate 74.5 MW (nameplate, AC) Everglades Solar Energy Center in Miami-Dade County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- Construct a new single bus, two (2) breaker 138 kV substation (Maco) on PV site approximately 1.3 miles from the Avocado-Mango section of the FPL Krome-Farmlife 138 kV line corridor.
- 2. Add one 138/34.5 kV main step-up transformer (85 MVA) to connect PV inverter array.
- 3. Construct 34.5 kV bus to connect the PV array to Maco 138 kV Substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Avocado-Mango section of the FPL Krome-Farmlife138 kV line into Maco substation (approximately 1.3 miles).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.3 Transmission Facilities for the Pink Trail Solar Energy Center in St. Lucie County

The work required to connect the approximate 74.5 MW (nameplate, AC) Pink Trail Solar Energy Center in St. Lucie County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (Hennis) on the project site.
- 2. Add one 230 kV line switch at Heru for string bus to Hennis substation approximately 0.3 miles.
- 3. Add one 230kV breaker at Heru substation.
- 4. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array at Hennis.
- 5. Construct 34.5 kV bus to connect the PV array to 230 kV Hennis substation.
- 6. Add relays and other protective equipment.
- 7. Breaker replacements: None

- 1. Construct approximately 0.3 miles string bus from Heru 230 kV to Hennis substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.4 Transmission Facilities for the Bluefield Preserve Solar Energy Center in St. Lucie County

The work required to connect the approximate 74.5 MW (nameplate, AC) Bluefield Preserve Solar Energy Center in St. Lucie County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Name to be determined later) adjacent to the FPL Sherman-Heru 230 kV line corridor.
- 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 230 kV Substation (name to be determined later).
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the adjacent Sherman-Heru 230 kV line into substation (name to be determined later)
- 2. No additional upgrades are expected to be necessary at this time.

III.E.5 Transmission Facilities for the Cavendish Solar Energy Center in Okeechobee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Cavendish Solar Energy Center in Okeechobee County in the 1st Quarter of 2023 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 the existing 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 the existing plant, which is connected to Fort Drum 500 kV Substation.

III.E.6 Transmission Facilities for the Anhinga Solar Energy Center in Clay County

The work required to connect the approximate 74.5 MW (nameplate, AC) Anhinga Solar Energy Center in Clay County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (name to be determined later) on the project site.
- 2. Add one 230 kV line switch at new substation to connect to Leno substation (Magnolia Springs 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 230 kV Substation (name to be determined later).
- 5. Add relays and other protective equipment.
- 6. Breaker replacements: None

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

III.E.7 Transmission Facilities for the Blackwater River Solar Energy Center in Santa Rosa County

The work required to connect the approximate 74.5 MW (nameplate, AC) Blackwater River Solar Energy Center in Santa Rosa County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Rooster) on the project site approximately 1.2 miles south of the Shoal River-Alligator Swamp 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 Rooster 230 kV Substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- Loop the Alligator Swamp-Antioch Road section of the Shoal River-Alligator Swamp 230 kV line (approximately 1.2 miles) into Rooster substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.8 Transmission Facilities for the Chipola Solar Energy Center in Calhoun County

The work required to connect the approximate 74.5 MW (nameplate, AC) Chipola Solar Energy Center in Calhoun County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Melvin) on the project site adjacent to the Smith-Sinai 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 Melvin 230 kV Substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Smith-Sinai 230 kV line into Melvin substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.9 Transmission Facilities for the Flowers Creek Solar Energy Center in Calhoun County

The work required to connect the approximate 74.5 MW (nameplate, AC) Flowers Creek Solar Energy Center in Calhoun County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- a. Construct a new single bus, two (2) breaker 115 kV substation (Grady) on the project site adjacent to the Callaway-Sinai 115 kV line.
- b. Add one 115/34.5 kV main step-up transformer (85 MVA) with a 115 kV breaker to connect PV inverter array.
- c. Construct 34.5 kV bus to connect the PV array to Grady 115 kV Substation.
- d. Add relays and other protective equipment.
- e. Breaker replacements: None

- 3. Loop the Callaway-Sinai 115 kV line into Grady substation on site.
- 4. No additional upgrades are expected to be necessary at this time.

III.E.10 Transmission Facilities for the First City Solar Energy Center in Escambia County

The work required to connect the approximate 74.5 MW (nameplate, AC) First City Solar Energy Center in Escambia County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (name to be determined later) on the project site, approximately 0.3 miles from the North Brewton-Alligator Swamp 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 230 kV substation (name to be determined later).
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the North Brewton-Alligator Swamp 230 kV line (approximately 0.3 mile) into new substation (name to be determined later).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.11 Transmission Facilities for the Apalachee Solar Energy Center in Jackson County

The work required to connect the approximate 74.5 MW (nameplate, AC) Apalachee Solar Energy Center in Jackson County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 115 kV substation (Dellwood) on the project site, near the Gulf Marianna West Grand Ridge 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 Dellwood 115 kV Substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Gulf Marianna West Grand Ridge 115 kV line into Dellwood substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.12 Transmission Facilities for the Wild Azalea Solar Energy Center in Gadsden County

The work required to connect the approximate 74.5 MW (nameplate, AC) Wild Azalea Solar Energy Center in Gadsden County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, three (3) breaker 230 kV substation (Piedmont) on the project site, approximately 5.0 miles from the FPL Sinai- GPC Faceville 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 230 kV Piedmont substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the FPL Sinai- GPC Faceville 230 kV line (approximately 5.0 mile) into Piedmont substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.13 Transmission Facilities for the Chautauqua Solar Energy Center in Walton County

The work required to connect the approximate 74.5 MW (nameplate, AC) Chautauqua Solar Energy Center in Walton County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Liddie) on the project site, adjacent to the FPL Shoal River- APC Samson 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 230 kV Liddie substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the adjacent FPL Shoal River- APC Samson 230 kV line into Liddie substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.14 Transmission Facilities for the Shirer Branch Solar Energy Center in Calhoun County

The work required to connect the approximate 74.5 MW (nameplate, AC) Shirer Branch Solar Energy Center in Calhoun County in the 1st Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 115 kV substation (Mayo) on the project site, approximately 1.5 miles from the Callaway-Sinai 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 115 kV Mayo substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Callaway-Sinai 115 kV (approximately 1.5 miles) into Mayo substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.15 Transmission Facilities for the Saw Palmetto Solar Energy Center in Bay County

The work required to connect the approximate 74.5 MW (nameplate, AC) Saw Palmetto Solar Energy Center in Bay County in the 2nd Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 115 kV substation (Youngstown) on the project site, adjacent to the Marianna-Bay County 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 115 kV Youngstown substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Marianna-Bay County 115 kV into Youngstown substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.16 Transmission Facilities for the Cypress Pond Solar Energy Center in Washington County

The work required to connect the approximate 74.5 MW (nameplate, AC) Cypress Pond Solar Energy Center in Walton County in the 2nd Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Reeves) on the project site, approximately 0.5 miles from the Shoal River- Smith 230 kV line corridor.
- 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 230 kV Reeves substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- Loop the Shoal River- Smith 230 kV line (approximately 0.5 miles) into Reeves substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.17 Transmission Facilities for the Etonia Creek Solar Energy Center in Putnam County

The work required to connect the approximate 74.5 MW (nameplate, AC) Etonia Creek Solar Energy Center in Putnam County in the 2nd Quarter of 2023 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Baltic) on the project site, approximately 2 miles from the Quasar-Rice 230 kV line corridor.
- 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 230 kV Baltic substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Quasar-Rice 230 kV line (approximately 2 miles) into Baltic substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.18 Transmission Facilities for the Terrill Creek Solar Energy Center in Clay County

The work required to connect the approximate 74.5 MW (nameplate, AC) Terrill Creek Solar Energy Center in Clay County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (Terrill) on the project site.
- 2. Add one 230 kV line switch at Leno for string bus to Terrill substation approximately 2.6 miles
- 3. Add one 230kV breaker at Leno substation.
- 4. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
- 5. Construct 34.5 kV bus to connect the PV array to 230 kV Terrill substation.
- 6. Add relays and other protective equipment.
- 7. Breaker replacements: None

- 1. Construct approximately 2.6 miles string bus from Leno 230 kV to Terrill substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.19 Transmission Facilities for the Silver Palm Solar Energy Center in Palm Beach County

The work required to connect the approximate 74.5 MW (nameplate, AC) Silver Palm Solar Energy Center in Palm Beach County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (Louise) on the project site.
- 2. Add one 230 kV line switch at Costa for string bus to Louise substation approximately 0.2 miles
- 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 230 kV Louise substation.
- 5. Add relays and other protective equipment.
- 6. Breaker replacements: None

- 1. Construct approximately 0.2 miles string bus from Costa 230 kV to Louise substation.
- 2. No additional upgrades are expected to be necessary at this time.

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

The work required to connect the approximate 74.5 MW (nameplate, AC) Ibis Solar Energy Center in Brevard County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (Crayfish) on the project site.
- 2. Add one 230 kV line switch at Hayward for string bus to Crayfish substation approximately 1.5 miles.
- 3. Add one 230kV breaker at Hayward substation.
- 4. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array.
- 5. Construct 34.5 kV bus to connect the PV array to 230 kV Crayfish substation.
- 6. Add relays and other protective equipment.
- 7. Breaker replacements: None

- Construct approximately 1.5 miles string bus from Hayward 230 kV to Crayfish substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.21 Transmission Facilities for the Woodyard Solar Energy Center in Hendry County

The work required to connect the approximate 74.5 MW (nameplate, AC) Woodyard Solar Energy Center in Hendry County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 500 kV bus at Ghost substation and interconnect the 500/34.5kV transformer through a 500kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Ghost 500 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

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

III.E.22 Transmission Facilities for the Beautyberry Solar Energy Center in Hendry County

The work required to connect the approximate 74.5 MW (nameplate, AC) Beautyberry Solar Energy Center in Hendry County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 500 kV bus at Ghost substation and interconnect the 500/34.5kV transformer through a 500kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Ghost 500 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

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

III.E.23 Transmission Facilities for the Turnpike Solar Energy Center in Indian River County

The work required to connect the approximate 74.5 MW (nameplate, AC) Turnpike Solar Energy Center in Indian River County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 230 kV bus at Kiran substation and interconnect the 230/34.5kV transformer through a 230kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Kiran 230 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

III.E.24 Transmission Facilities for the Monarch Solar Energy Center in Martin County

The work required to connect the approximate 74.5 MW (nameplate, AC) Monarch Solar Energy Center in Martin County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new 230 kV substation (name to be determined later) on the project site.
- 2. Add one 230 kV line switch at Warfield for string bus to substation (name to be determined later) approximately 1.1 miles.
- 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 230 kV substation (name to be determined later).
- 5. Add relays and other protective equipment.
- 6. Breaker replacements: None

- 1. Construct approximately 1.1 miles string bus from Warfield 230 kV to substation (name to be determined later).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.25 Transmission Facilities for the Caloosahatchee Solar Energy Center in Hendry County

The work required to connect the approximate 74.5 MW (nameplate, AC) Caloosahatchee Solar Energy Center in Henry County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (name to be determined later) on the project site, approximately 3 miles from the Alva-Corbett 230 kV line.
- 2. Add one 115/34.5 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 230 kV substation (name to be determined later).
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the Alva-Corbett 230 kV (approximately 3 miles) into substation (name to be determined later).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.26 Transmission Facilities for the White Tail Solar Energy Center in Martin County

The work required to connect the approximate 74.5 MW (nameplate, AC) White Tail Solar Energy Center in Martin County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Kiwi) on the project site approximately 2 miles north of the Hummingbird-Bridge section of the FPL Bridge-Indiantown #1 230 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 Kiwi 230 kV Substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- Loop the Hummingbird-Bridge section of the FPL Bridge-Indiantown #1 230 kV line (approximately 2 miles) into Kiwi substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.27 Transmission Facilities for the Prairie Creek Solar Energy Center in DeSoto County

The work required to connect the approximate 74.5 MW (nameplate, AC) Prairie Creek Solar Energy Center in DeSoto County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation 1 (name to be determined later) on the project site, adjacent to the Orange River-Whidden 230 kV line.
- 2. Construct a new 230 kV substation 2 (Name to be determined later) on the project site.
- 3. Add one 230 kV line switch at substation 1 (name to be determined later) for string bus to substation 2 (name to be determined later) approximately 4.5 miles.
- 4. Add one 230kV breaker at substation 1 (name to be determined later).
- 5. Add one 230/34.5 kV main step-up transformer (85 MVA) with a 230 kV breaker to connect PV inverter array at substation 2 (name to be determined later).
- Construct 34.5 kV bus to connect the PV array to 230 kV substation 2 (name to be determined later).
- 7. Add relays and other protective equipment.
- 8. Breaker replacements: None

- 1. Loop the Orange River-Whidden 230 kV into substation 1 (name to be determined later).
- 2. Construct approximately 4.5 miles string bus from substation 1 (name to be determined later) 230 kV to substation 2 (name to be determined later).
- 3. No additional upgrades are expected to be necessary at this time.

III.E.28 Transmission Facilities for the Pineapple Solar Energy Center in St. Lucie County

The work required to connect the approximate 74.5 MW (nameplate, AC) Pineapple Solar Energy Center in St. Lucie County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 230 kV bus at Hennis substation and interconnect the 230/34.5kV transformer through a 230kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Hennis 230 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

III.E.29 Transmission Facilities for the Canoe Solar Energy Center in Okaloosa County

The work required to connect the approximate 74.5 MW (nameplate, AC) Canoe Solar Energy Center in Okaloosa County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 115 kV substation 1 (Mink) on the project site, adjacent to the Crist-South Crestview 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 at Mink.
- 3. Construct 34.5 kV bus to connect the PV array to 115 kV Mink substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the adjacent Crist-South Crestview 115 kV into Mink substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.30 Transmission Facilities for the Sparkleberry Solar Energy Center in Escambia County

The work required to connect the approximate 74.5 MW (nameplate, AC) Sparkleberry Solar Energy Center in Escambia County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (name to be determined later) on the project site, approximately 0.5 miles to the APC Barry-Conecuh 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 at TBD.
- 3. Construct 34.5 kV bus to connect the PV array to 230 kV substation (name to be determined later).
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the APC Barry-Conecuh 230 kV line (approximately 0.5 miles) into substation (name to be determined later).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.31 Transmission Facilities for the Sambucus Solar Energy Center in Manatee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Sambucus Solar Energy Center in Manatee County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 230 kV bus at Coachwhip substation and interconnect the 230/34.5kV transformer through a 230kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Coachwhip 230 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

III.E.32 Transmission Facilities for the Three Creeks Solar Energy Center in Manatee County

The work required to connect the approximate 74.5 MW (nameplate, AC) Three Creeks Solar Energy Center in Manatee County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 230 kV bus at Saffold substation and interconnect the 230/34.5kV transformer through a 230kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Saffold 230 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

III.E.33 Transmission Facilities for the Thomas Creek Solar Energy Center in Nassau County

The work required to connect the approximate 74.5 MW (nameplate, AC) Thomas Creek Solar Energy Center in Nassau County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Extend 230 kV bus at Crawford substation and interconnect the 230/34.5kV transformer through a 230kV breaker.
- 2. Construct 34.5 kV bus to connect the PV array to Crawford 230 kV Substation.
- 3. Add relays and other protective equipment.
- 4. Breaker replacements: None

II. Transmission:

III.E.34 Transmission Facilities for the Big Juniper Creek Solar Energy Center in Santa Rosa County

The work required to connect the approximate 74.5 MW (nameplate, AC) Big Juniper Creek Solar Energy Center in Santa Rosa County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 115 kV substation 1 (Name to be determined later) on the project site, adjacent to the Crist-South Crestview #2 115 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 at TBD.
- 3. Construct 34.5 kV bus to connect the PV array to 115 kV substation (name to be determined later).
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the adjacent Crist-South Crestview #2 115 kV into substation (name to be determined later).
- 2. No additional upgrades are expected to be necessary at this time.

III.E.35 Transmission Facilities for the Wild Quail Solar Energy Center in Walton County

The work required to connect the approximate 74.5 MW (nameplate, AC) Wild Quail Solar Energy Center in Walton County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Quail) on the project site, adjacent to the APC Samson-Shoal River 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 at Quail.
- 3. Construct 34.5 kV bus to connect the PV array to 230 kV Quail substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- 1. Loop the adjacent to the APC Samson-Shoal River 230 kV line into Quail substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.E.36 Transmission Facilities for the Pecan Tree Solar Energy Center in Walton County

The work required to connect the approximate 74.5 MW (nameplate, AC) Pecan Tree Solar Energy Center in Walton County in the 1st Quarter of 2024 is projected to be:

I. Substation:

- 1. Construct a new single bus, two (2) breaker 230 kV substation (Caney) on the project site, approximately 3.6 miles to the APC Samson-Shoal River 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 at Caney.
- 3. Construct 34.5 kV bus to connect the PV array to 230 kV Caney substation.
- 4. Add relays and other protective equipment.
- 5. Breaker replacements: None

- Loop the APC Samson-Shoal River 230 kV line (approximately 3.6 miles) into Caney substation.
- 2. No additional upgrades are expected to be necessary at this time.

III.F. Renewable Resources and Storage Technology

FPL's Renewable Energy Efforts Through 2021:

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 (including FPL Northwest FL, the former Gulf area) renewable energy efforts through 2021 are briefly discussed below in five categories of solar/renewable activities. Plans for new renewable energy facilities from 2022 through 2031 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 several 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 several years to test new thin-film PV technologies.

The former Gulf company has evaluated the potential for wind as a renewable energy resource in Northwest Florida through meteorological research along the coastal area. It also participated in joint efforts with other Southern Company utilities' research on various PV technology evaluations.

2) <u>Demand Side & Customer Efforts:</u>

In terms of utilizing renewable energy sources to meet its customers' needs, FPL initiated the first utility-sponsored conservation program in Florida designed to facilitate the implementation of solar technologies by its customers. FPL's Conservation Water Heating Program, first implemented in 1982, offered incentive payments to customers 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 which was the incorporation of 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.

Gulf offered customers the opportunity to contribute to the development of solar PV beginning with the Solar for Schools program in its 1995 DSM Plan. This voluntary program ultimately developed multiple PV installations in schools across Northwest Florida and was used primarily for educational purposes. In 1999, Gulf offered customers an additional opportunity through an optional rate rider. The PV Rate Rider program was intended to give customers an opportunity to contribute towards the construction of a solar PV facility along with other customers across the Southern Company territory.

In 2008, Gulf received FPSC approval to offer an experimental solar water heating program. This program was intended to help customers overcome the high initial cost of adopting the solar thermal water heating technology. The program spanned three years and was absorbed into a larger portfolio of renewable program offerings in Gulf's 2010 DSM Plan.

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. The annual spending caps for these applications over the five-year period was approximately \$15.5 million per year for FPL and approximately \$576,000 per year for Gulf. 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 a Renewable Research and Demonstration project. Gulf received similar approval from the FPSC in 2011 to initiate a solar pilot portfolio consisting of two PV-based programs and two solar water heating-based programs. Analyses of the results by both FPL and Gulf from these pilot programs since their inception consistently showed that

none of these pilot programs were cost-effective for 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.

Gulf conducted market research in 2015 indicating customer interest in a renewable energy alternative to rooftop PV. After further research into innovative offerings across the industry, Gulf developed a subscription-based program model commonly known as community solar. Gulf received FPSC approval in 2016 for a Community Solar program intended to facilitate construction of a 1 MW facility in Northwest Florida once adequate subscriptions were secured. However, customer interest was not adequate enough to justify construction of the project.

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 2021, approximately 44,700 customer systems (predominantly residential) have been interconnected with FPL (including FPL Northwest FL). These values represent approximately 0.8% of FPL's total number of customer accounts.

3) Supply Side Efforts – Power Purchases:

FPL has facilitated several 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 2034.

FPL currently has three PPAs with solar facilities totaling approximately 120 MW of nameplate capacity. In addition, FPL has two PPAs totaling approximately 81 MW based, at least in part, on receiving firm amounts of hourly energy from out-of-state sources that were originally wind-generated. Tables I.A.3.1, I.A.3.2, I.A.3.3, I.B.3.1, I.B.3.2, and I.B.3.3 in Chapter I provide information regarding both firm and non-firm capacity PPAs from renewable energy facilities in the two areas.

4) Supply Side Efforts – Utility Owned Facilities:

At the time this Site Plan is filed (April 1, 2022), FPL will own 51 universal solar generating facilities. All but one of these facilities are PV facilities and together these PV facilities represent

approximately 3,611 MW (nameplate) of generation for FPL. The other facility is a 75 MW solar thermal facility. 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. Each of these solar facilities is listed below in Table III.F.1.

Table III.F.1: List of FPL-Owned Solar Facilities Through April 2022

DIC	III.F.1: LIST OF F	PL-Owned 3	Dial Facilitie	s milough	April 20
	Solar Energy Center	County	Nameplate MW	Туре	COD
1	DeSoto	DeSoto	25	Tracking	Oct-09
2	Space Coast	Brevard	10	Fixed	Apr-10
3	Martin	Martin	75	Solar Thermal	Dec-20
4	Manatee	Manatee	74.5	Fixed	Dec-16
5	Citrus	Desoto	74.5	Fixed	Dec-16
6	Babcock Ranch	Charlotte	74.5	Fixed	Dec-16
7	Horizon	Alachua/Putnam	74.5	Fixed	Jan-18
8	Coral Farms	Putnam	74.5	Fixed	Jan-18
9	Wildflower	DeSoto	74.5	Fixed	Jan-18
10	Indian River	Indian River	74.5	Fixed	Jan-18
11	Blue Cypress	Indian River	74.5	Fixed	Mar-18
12	Barefoot Bay	Brevard	74.5	Fixed	Mar-18
13	Hammock	Hendry	74.5	Fixed	Mar-18
14	Loggerhead	St. Lucie	74.5	Fixed	Mar-18
15	Miami-Dade	Miami-Dade	74.5	Fixed	Jan-19
16	Interstate	St. Lucie	74.5	Fixed	Jan-19
17	Sunshine Gateway	Columbia	74.5	Fixed	Jan-19
18	Pioneer Trail	Volusia	74.5	Fixed	Jan-19
19	Sweetbay	Martin	74.5	Fixed	Jan-20
20	Northern Preserve	Baker	74.5	Fixed	Jan-20
21	Cattle Ranch	DeSoto	74.5	Tracking	Jan-20
22	Twin Lakes	Putnam	74.5	Tracking	Jan-20
23	Blue Heron	Hendry	74.5	Fixed	Jan-20
24	Babcock Preserve	Charlotte	74.5	Fixed	Jan-20
25	Hibiscus	Palm Beach	74.5	Fixed	Apr-20
26	Okeechobee	Okeechobee	74.5	Fixed	Apr-20
27	Southfork	Manatee	74.5	Tracking	Apr-20
28	Echo River	Suwannee	74.5	Tracking	Apr-20
29	Blue Indigo	Jackson	74.5	Tracking	Apr-20
30	Lakeside	Okeechobee	74.5	Fixed	Dec-20
31	Trailside	St. Johns	74.5	Tracking	Dec-20
32	Union Springs	Union	74.5	Tracking	Dec-20
33	Egret	Baker	74.5	Tracking	Dec-20
34	Nassau	Nassau	74.5	Tracking	Dec-20
35	Magnolia Springs	Clay	74.5	Tracking	Mar-21
36	Pelican	St. Lucie	74.5	Fixed	Mar-21
37	Palm Bay	Brevard	74.5	Fixed	Mar-21
38	Rodeo	DeSoto	74.5	Tracking	Mar-21
39	Sabal Palm	Palm Beach	74.5	Fixed	Apr-21
40	Willow	Manatee	74.5	Tracking	May-21
41	Discovery	Brevard	74.5	Fixed	May-21
42	Orange Blossom	Indian River	74.5	Fixed	May-21
43	Fort Drum	Okeechobee	74.5	Fixed	Jun-21
44	Blue Springs	Jackson	74.5	Tracking	Dec-21
45	Cotton Creek	Escambia	74.5	Fixed	Dec-21
46	Ghost Orchid	Hendry	74.5	Fixed	Jan-22
47	Sawgrass	Hendry	74.5	Fixed	Jan-22
48	Sundew	St. Lucie	74.5	Fixed	Jan-22
49	Elder Branch	Manatee	74.5	Tracking	Jan-22
50	Grove	Indian River	74.5	Fixed	Jan-22
51	Immokalee	Collier	74.5	Fixed	Jan-22

5) Ongoing Research & Development Efforts:

FPL has a "Living Lab" across several of its office locations and select customer sites to demonstrate FPL's renewable energy commitment to employees and visitors. 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 currently has approximately 293 kW of PV as part of the Living Lab, including a 157 kW floating solar installation in Miami-Dade County that can enable FPL to compare generation and O&M costs for floating versus ground-mount solar PV. In 2020, FPL expanded the Living Lab to include residential sites around Palm Beach County to test battery storage in a residential setting. The test addresses 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. In 2021, FPL added solar PV paired with battery storage in a residential setting and 500 kW of linear generators. 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, thermal storage, hydrogen, fuel cell technology, and energy storage.

Regarding PV's impact on the FPL system, FPL developed 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 several factors including: site location, technology, design, and the total amount of solar that is operating on FPL's system.

Based on the results of its analyses using that methodology, firm capacity values are assigned to each new solar facility. These firm capacity values are described in terms of the percentage of the facility's nameplate (AC) rating that can be counted on as firm capacity at the Summer and Winter peak load hours. For example, two of FPL's earliest PV facilities, DeSoto and Space Coast, have been assigned firm capacity values of approximately 46% for DeSoto and 32% for Space Coast at FPL's Summer peak hour (that typically occurs in the 4 p.m. to 5 p.m. hour), but contribute firm capacity of only 3% for DeSoto and 1% for Space Coast during FPL's Winter peak hour (that typically occurs in the 7 a.m. to 8 a.m. hour). Similarly, each new solar facility is assigned a specific firm capacity value based on the factors described above. Information on each solar unit's firm capacity is available in the footnotes of Schedule 1 in Chapter I and the entries for new units in Schedule 8 later in this chapter.

FPL has also conducted research on residential battery systems to evaluate both the potential to shift solar contribution to peak hours and to dispatch storage as a demand-response resource.

Renewable Energy, Battery Storage, and Electric Vehicle Projections for 2022 through 2031:

This section addresses efforts regarding renewable energy in both universal (utility-scale) and distributed solar, as well as FPL's SolarTogether™ (ST) program. In addition, efforts regarding battery storage are also addressed. 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 PV facilities 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.

In the first quarter of 2018, eight additional PV facilities of 74.5 MW each, or 596 MW in total, also went into commercial operation. These eight PV facilities were added under the Solar Base Rate Adjustment (SoBRA) provision of the Commission's order approving the settlement agreement for FPL's base rate case in 2016 (Order No. PSC-16-0560-AS-EI) and comprised two groups of four solar facilities each. In 2019, four more 74.5 MW PV facilities, or approximately 298 MW, were added as SoBRA facilities. An additional four 74.5 MW PV facilities, or approximately 298 MW, were placed into commercial operation in the 2nd Quarter of 2020. This completed the addition of solar under that SoBRA mechanism.

As part of FPL's recently approved 2021 Rate Case Settlement (Order PSC-2021-0446-S-EI), the FPSC authorized FPL to construct 447 MW of PV solar in 2022 and an additional 745 MW of PV solar in 2023. The six sites totaling 447 MW in the 2022 group achieved commercial operation in January 2022. The ten additional sites comprising the 2023 group will begin construction in the second quarter of 2022 and are expected to achieve commercial operation in January 2023.

Additionally, the Settlement also authorized FPL to construct 894 MW of PV solar in 2024 and 894 MW in 2025, a total of 1,788 MW of PV, using a SoBRA mechanism identical in concept

to the previous SoBRA. Each of these additions must be cost effective and fall below a cost cap of \$1,250 kWac.

In FPL's Northwest Florida region, a total of three new 74.5 MW PV facilities have been added. The first was placed into service in April 2020 and two additional sites achieved commercial operation in December of 2021.

The Recommended resource plan presented in this Site Plan continues to show significant increases in solar (PV) resources over the 10-year reporting period. Approximately 9,462 MW of additional PV generation is projected to be added in the 2022 through 2031 time period. These additional PV facilities are projected to be 74.5 MW each. When combining these projected solar additions with the approximately 3,164 MW of solar PV already installed on FPL's system at the end of 2021, the projected total of solar PV for the single integrated utility by the end of 2031 is equal to 12,626 MW. This planned solar implementation schedule is consistent with FPL's January 2019 announcement of its "30-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. However, FPL now projects that it will reach this goal by 2025, five years ahead of schedule.

Ongoing resource planning work will continue to analyze the projected system economics of solar and all other resource options. Information regarding the Preferred and Potential Sites for the projected solar additions, particularly in the near-term, is presented in Chapter IV and in the Appendix.

2) <u>Distributed PV Pilot Programs:</u>

FPL began implementation of two distributed 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 funded by contributions from customers who volunteer to participate in the pilot and does not rely on subsidies from non-participating customers. The second program has installed approximately 3.8 MW of distributed generation (DG) PV and expired at the end of 2020. The objective of this second program was to collect grid integration data for DG PV and develop operational best practices for addressing potential problems that may be identified. The PV installed under this pilot program will continue to be evaluated for these purposes. 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 a flexible opportunity to support 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 final program disposition and five-year extension of the pilot was approved on December 1, 2020 by the FPSC in Order No. PSC-2020-0508-TRF-EI, and the program will now sunset on December 31, 2025.

This pilot program provided all customers the opportunity to support bringing solar projects into local communities by funding the construction of solar facilities in local public areas, such as parks, zoos, schools, and museums. Customers can participate in the program through voluntary contributions of \$9/month. As of the end of 2021, there were 48,833 participants enrolled in the Voluntary Solar Pilot Program. This program has installed 78 projects located in 36 communities within the FPL service territory. These projects represent approximately 2,530 kW-DC of PV generation.

In addition to the SolarNow[™] pilot program, FPL has also installed 88.3 kW (DC) of distributed solar generators at 12 different locations and 7.2 kW (DC) of non-grid tied solar and battery assets throughout FPL's Northwest Area.

b) C&I Solar Partnership Pilot Program:

This pilot program was conducted in partnership with interested commercial and industrial customers over an approximately 5-year period and expired in 2020. Limited investments were made in PV facilities located at customer sites on selected distribution circuits within FPL's service territory.

The primary objective was 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 installed approximately 3.7 MW of PV facilities on circuits that experience specific loading conditions to better study feeder loading impacts. In addition, FPL evaluated the integration of solar into urban areas to test its impact on the distribution system on feeders that are heavily loaded. FPL has also investigated the capabilities of "bifacial solar panel" technology, which, unlike traditional panels, is able to produce energy on both sides.

3) FPL SolarTogether™ Program:

In March of 2019, FPL filed for FPSC approval of a community solar program under the market name FPL SolarTogether[™]. This voluntary program offers FPL customers the option to purchase solar output/attributes from cost-effective, large-scale solar energy

centers. The proposed program did not require customers who participate to be bound to a long-term contract or subject to upfront enrollment costs or termination penalties. Under this program, participants' monthly electric bills would show both a subscription charge and a subscription credit line item associated with the subscribers' share of the actual solar energy generated. The FPL SolarTogether™ program was designed to leverage the economies of scale of universal solar to deliver long-term savings to both program participants and non-participants.

In March 2020, the FPSC approved the FPL SolarTogether[™] program (Order PSC-2020-0084-S-EI). The first phase of the program added 1,490 MW of new solar facilities¹⁹. Program open enrollment began on March 17, 2020, receiving very favorable reception by residential, small business, and commercial customers.

As of June 2021, all twenty approved sites under this program were complete and operational. The 1,118 MW allocated to commercial, industrial, and governmental (CI&G) customers is sold out as a result of the 2018-2019 pre-registration efforts and the waitlisted subscriptions for this segment total over 1,700 MW. The residential and small business subscriptions have also been fully subscribed at 335 MW with a smaller waitlist. Finally, the low-income portion of SolarTogether, marketed as FPL SunAssistTM opened for enrollment on January 14, 2021 and has subscribed approximately 32 MW of the 37.5 MW available, or 85% subscribed, as of month end January 2022.

As part of the recently approved 2021 Rate Case Settlement, FPL received approval to extend the highly popular FPL SolarTogether program through the construction of an additional 1,788 MW of cost-effective solar through 2025. This incremental capacity will be allocated 40% to residential and small business customers with a carve out of 45 MW for low-income participants. The remaining 60% is allocated to commercial, industrial and governmental (CI&G) customers, of which 20% is reserved for CI&G customers in the FPL Northwest Florida region.

4) Solar Power Facilities Pilot Program:

As part of FPL's 2021 Settlement Agreement, FPL received approval to offer a four-year voluntary pilot program to commercial and industrial customers that may elect to have FPL install and maintain a solar facility on their site for a monthly tariff charge (the "Solar Power Facilities Pilot Program"). The output of his solar facility would be used solely by the

¹⁹ In the SolarTogether community solar program, participating customers share in the costs and benefits of a dedicated FPL SolarTogether PV facility and are entitled, upon their request, to have the environmental attributes associated with their participation retired by FPL on their behalf.

participating customer. The tariff is for a ten-year term and the monthly fixed charge will recover the project capital costs and ongoing operating expenses from the program participants, such that the general body of customers will not be impacted.

Battery Storage Efforts:

Battery storage technology has continued to advance, and the costs of storage are projected to continue to decline over the long-term. As a result, battery storage, particularly when charged solely by utility-scale solar facilities, has become an economically competitive firm capacity option for FPL's system. As previously discussed, a 409 MW battery storage facility was added in late 2021 at the existing Manatee plant site. Additional battery storage capacity was added in late 2021 with 30 MW of battery storage added at both the existing Sunshine Gateway Solar Energy Center and at the Echo River Solar Energy Center. An additional total of approximately 3,200 (nameplate) MW of battery storage is also included in the Recommended resource plan through 2031.

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 installed 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 multiple projects that have been in service for more than 3 years and have yielded valuable information regarding the applications listed above. These projects and learnings from them include: (i) a 1.5 MW battery in Miami-Dade County using second life automotive batteries for peak shaving and frequency response (found that high in-house integration costs coupled with low remaining capacity in second-life batteries do not support the business case), (ii) a 1.5 MW battery in Monroe County for backup power and voltage support (showcased the complexity of working with customer's equipment), (iii) a relocatable 0.75 MW uninterruptible power supply (UPS) battery at Trividia Health, Inc. in Broward county (provides consistent support to mitigate customer's momentary disruptions and reliability issues but relocation is costly and requires high technical expertise), and (iv) smaller kilowattscale systems in several communities for distributed storage reliability (applications successfully provide reliability support for residential customers during grid events but FPL found front-of-the-meter deployment is more expensive than behind-the-meter installations). FPL plans to decommission the 1.5 MW battery in Monroe County, the 0.75 MW uninterruptible power supply (UPS) and the small kilo-watt scale systems in several communities by the end of 2022.

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

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

The first two storage projects under this pilot, placed in-service in the first Quarter of 2018, involve pairing battery storage with existing universal PV facilities. One of the projects is a 4 MW battery sited at FPL's Citrus Solar Energy Center. This project captures clipped (curtailed) solar energy from the solar panels during high solar insolation hours, then releases this energy in other hours. The second project 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 to provide "smoothing" of solar output and regulation services. These two projects are designed to enhance the operations of existing solar facilities that were installed in 2016. The data and lessons gathered from these two projects enable more optimized design configurations for solar-paired battery projects as well as improved operational parameters for economic dispatch. In 2021, FPL added an additional 1 MW to the existing Babcock Ranch Battery

Storage System to test the design and performance of various battery augmentation solutions to mitigate degradation.

In the fourth Quarter of 2019, a 10 MW battery in Wynwood, a dense urban area close to downtown Miami, went into service. 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. Key learnings relate to the challenges of installing a battery in a dense urban area, including the decision to install in a building to allow for increased energy density, and integration into the distribution control system to allow for seamless integration into the Automated Feeder Switching system.

Two additional projects placed in-service in 2020 are designed to enhance reliability for FPL customers and the grid. One is an 11.5 MW battery that will augment the new Dania Beach Clean Energy Center Unit 7 now under construction. This project evaluates using battery storage to black start large generating units. The other is 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 projects have thus far yielded valuable learnings about interconnection approach and properly sizing the battery to account for the inrush current needed to energize the load for these applications.

The last three projects explore battery storage opportunities associated with electric vehicles (EVs) and EV infrastructure. The first explores the potential for utilizing EVs as grid resources on FPL's system for the first time ever; the 1.25 MW of Electric-Vehicle-to-Grid (EV2G) batteries using electric school buses will be able to discharge electricity to the grid when needed. The first buses were delivered in the third quarter of 2020 and first quarter of 2021; the remaining three buses are delayed due to supply chain constraints. The second EV plus storage pilot adds 0.35 MW of battery storage to two FPL EVolution pilot sites in Columbia County and Nassau County (0.7 MW total) to provide grid benefits in the form of peak shaving and a reduction in distribution upgrades. The third and final pilot project, the "FPL EVolution Hub", has two parts: (i) 7.25 MW of storage paired with 5 MW solar PV to create a renewable microgrid, and (ii) two trailers each fitted with 0.65 MW (total 1.3 MW) of storage and 6 EV (12 total) fast chargers. The microgrid will be used to charge the trailers that will be deployed throughout FPL territory during grid events to increase resiliency for EV charging. The microgrid will also be used to provide electricity to a nearby administrative building, warehouse, and several biodiesel tanks when not being used to charge the battery trailers. These final pilot projects are in construction and expected in-service in 2022.

A summary of FPL's battery storage facilities is presented in Table III.F.2 below.

Table III.F.2: List of FPL Battery Storage Facilities

In-			
Service			Nameplate
Date	Location/Projects	Status	MW
2016-			
2017	2016 Pilots	Operational	4
2018	Citrus Solar Energy Center	Operational	4
	Babcock Ranch Solar Energy		
2018	Center	Operational	10
2019	Wynwood	Operational	10
2020	Dania Beach Energy Center	Operational	11.5
2020	University Microgrid	Operational	3
2020	EV2G	Operational	1.25
2021	Manatee	Operational	409
2021	Sunshine Gateway	Operational	30
2021	Echo River	Echo River Operational	
2022	EV + Storage	In Construction	0.7
2022	FPL EVolution Hub	In Construction	8.55
	522		

Electric Vehicle Efforts:

Florida continues to rank in the top three in the nation for electric vehicle (EV) adoption, and more Floridians are buying EVs every year. FPL began implementation of the FPL EVolution pilot program in 2019 to support the growth of EVs with the goal to install more than 1,000 charging ports, thus increasing the availability of public charging for EVs in Florida by 50%. The primary objective of this pilot program for FPL is to gather data and learnings ahead of projected mass EV adoption to ensure future EV investments enhance service and reduce costs. The FPL EVolution Pilot focuses on three key areas: a) influences of infrastructure buildout on adoption; b) rate structures and demand models; and c) grid impacts of fast-charging. This pilot program is being conducted in partnership with interested host customers over an approximate 3-year period. Installations encompass different EV charging technologies and market segments, including level 2 workplace charging at public and/or private workplaces; destination charging at well-attended locations; residential charging at customers' homes; and fast charging in high-traffic areas, along highway corridors and evacuation routes to enable long distance travel. These places include Florida's Turnpike Service Plazas, public parking areas, tourist attractions, hospitals, and large businesses that employ hundreds of Florida residents. As of December 31, 2021, FPL EVolution has installed 599 ports across 153 site locations. In addition to the approximately 540 additional ports at 100 site locations that are in

progress and expected online in 2022, FPL expects to add level 2 and fast charging for fleets at workplaces and fleet depots in 2022. The FPL EVolution pilot has provided FPL valuable early insights and best practices into EV charging infrastructure deployment in the areas of siting, equipment, installation, and grid reliability.

As part of FPL's 2021 Settlement Agreement, FPL received approval to expand the initial FPL EVolution Pilot and add additional EV programs that will launch in 2022, including: i) public fast charging, ii) new technologies and software, iii) education and outreach, iv) an optional residential EV charging services tariff, and v) an optional commercial EV charging services tariff.

In addition, pursuant to Order No. 20200512-TRF-EI, issued December 21, 2020, FPL has implemented three optional 5-year EV public charging pilot tariffs. The first tariff, Utility-Owned Public Charging for Electric Vehicles (Rate Schedule UEV), establishes a rate for FPL to charge drivers directly at certain utility-owned FPL EVolution fast charging stations. The second set of tariffs, Electric Vehicle Charging Infrastructure Riders to General Service Demand and General Service Large Demand (Rate Schedules GSD-1EV and GSLD-1EV), limit the demand cost associated with general service demand rates billed to third-party public charging stations operating in FPL's service area. The tariffs took effect in January 2021 and will last for a period of five years.

Next Generation DSM Options

FPL is constantly analyzing future trends – such as the steady increase in EVs and the emergence of behind-the-meter (BTM) batteries – to create forward-thinking programs that meet customers' evolving energy needs while delivering clean, reliable and affordable energy. Both EVs and BTM batteries change customers' demand patterns for electricity. As such, FPL considers these as demand side impacts. Therefore, the emergence of EVs and BTM batteries are areas that FPL is examining for potential "next generation" DSM options.

III.G Fuel Mix and Fuel Price Forecasts

1. Fuel Mix: FPL

FPL's fuel mix since the early 1990s has seen 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 as discussed in the Executive Summary. In March of 2018, the FPSC authorized a modernization of FPL's Lauderdale site in which two existing steam-type generating units were 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.

The uprates at Plant Smith's Unit 3 in the Northwest Florida region will increase the efficiency of the current unit, and alternatives that allow more output from existing units across the FPL system will continue to be evaluated. The addition of 4 CT's at the Gulf Clean Energy Center in 2021, capable of burning natural gas or ULSD oil, has also provided additional fuel diversity and reliability. In addition, FPL plans on expanding dual-fuel capability to its Fort Myers 2 CC unit and its Manatee CC unit.

FPL has also taken measures over the last few years to eliminate the use of coal as a fuel. FPL shuttered Cedar Bay in 2016, St. Johns River Power Park in 2018, the Indiantown Co-Gen coal-fueled unit in late 2020, and the Scherer 4 unit on 1/1/2022. The conversion of the Gulf Clean Energy Center to natural gas in 2020, plus the retirement of FPL's ownership portion of the Daniel Units 1 & 2 in January 2024 demonstrates a continued commitment to eliminate coal from the generation portfolio.

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. 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.

On January 30, 2018, FPL applied to the NRC for Subsequent License Renewal (SLR) for FPL's existing Turkey Point Units 3 & 4. The previous license terms for these two existing nuclear units extended into the years 2032 and 2033, respectively. The SLR requested approval to extend the operating licenses by 20 years to 2052 and 2053, respectively. The NRC granted approval for the SLR in December 2019. On February 24, 2022, the NRC reversed its adjudicatory decision interpreting environmental rules related to subsequent license renewals (SLR). In particular, the NRC concluded that its environmental review under the National Environmental Policy Act was insufficient. With this action, the NRC directed its staff to amend the Turkey Point Units 3 & 4 operating licenses by removing the 20-year term of licensed operation added by the SLR, thereby restoring the previous operating license expiration dates of 2032 and 2033 for Turkey Point Units 3 & 4, respectively.

Other than this change to the expiration dates, the subsequently renewed operating licenses remain in place. This decision, together with an associated decision by the NRC that applies to all SLR applications nationwide, provide that SLR applicants, instead of relying on the NRC's existing generic Environmental Impact Statements (EIS) for license renewal, may satisfy the environmental review requirements either by requesting the NRC Staff to proceed with an entirely site-specific EIS or by waiting for the NRC to issue a new generic EIS that will apply specifically to SLR applications, which the NRC has directed the NRC Staff to initiate. This action did not affect the NRC's review of the safety aspects of FPL's application. FPL is evaluating the NRC's decisions to determine the next steps in license renewal process for these units. For purposes of this Site Plan filing, FPL's resource planning analyses has assumed the continued operation of Turkey Point Units 3 & 4 through the new license termination dates.

In the 3rd Quarter of 2021, FPL applied to the NRC for an SLR for its existing St. Lucie nuclear Units 1 & 2. If approved by the NRC, the SLRs for St. Lucie Units 1 & 2 will extend the licenses for those facilities for an additional 20 years; until 2056 and 2063, respectively. The NRC is currently scheduled to make a decision on FPL's SLR request for the St. Lucie units by mid-2023, but those dates are likely to be delayed somewhat as the NRC revises its generic EIS for license renewal in response to their recent Turkey Point SLR decision.

By April 2022, FPL will have approximately 3,611 MW of renewable PV generating capability comprised mainly of 74.5 MW solar facilities at 50 sites. A significant amount of additional solar is projected in the current resource plan 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.

Ongoing resource planning work will continue to focus on identifying and evaluating alternatives that would most cost-effectively maintain and/or enhance long-term fuel diversity. These fuel-diverse alternatives may include 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 the ability to utilize fuel oil at existing units, and increased utilization of nuclear energy, and the purchase of power from renewable energy facilities (As previously discussed, new, advanced technology coal-fueled generating units are no longer considered as viable options in Florida). The evaluation of the feasibility and cost-effectiveness of these and other possible fuel diversity alternatives will be part of on-going resource planning efforts.

As part of the effort to introduce further fuel diversity and resiliency into FPL's generation system, a green hydrogen electrolysis pilot project is currently being developed at FPL's Okeechobee combined cycle unit. This pilot will utilize solar energy to perform electrolysis and generate hydrogen fuel. This hydrogen fuel will then be burned in a portion of the CC unit to test the capability of FPL's existing units to burn hydrogen instead of natural gas. This pilot would allow FPL to assess how the combustion turbine units in a combined cycle operate with a hydrogen and natural gas fuel mix and also will provide insight into how a hydrogen fuel production and storage facility can be effectively used on site with combustion turbine units. To provide a source of hydrogen to burn for this pilot, FPL will build an approximate 25 MW electrolyzer and a storage facility for the production and on-site storage of hydrogen at Okeechobee. The electrolyzer would be interconnected with generation at the Okeechobee site so that electrical energy from a solar facility can be used by the electrolyzer to separate water into hydrogen and oxygen gases. The oxygen is released into the air while the hydrogen is compressed and stored on-site where it can later be used as fuel in the combustion turbine units at the Okeechobee site. Although natural gas burns with much fewer carbon dioxide (CO₂) emissions compared to oil or coal, hydrogen burns with no CO₂ emissions. If successful, the pilot project is expected to guide the way for future use of green hydrogen in a larger way as a fuel in existing and potentially new CC units, thus lowering or eliminating CO2 emissions from CC unit operation in the future. This pilot project is projected to go into service in late 2023.

Current use of various fuels to supply energy to customers, plus projections of this "fuel mix" through 2031 based on the two resource plans presented in this document, are presented in Schedules 5, 6.1, and 6.2 that appear later in this chapter.

2. Fossil Fuel Cost Forecasts

FPL's 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. An October 2021 fuel cost forecast was used in the analyses which developed the resource plans presented in this 2022 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, Low, Medium, and High price forecasts for fossil fuels were developed in anticipation of the 2022 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 then current + 2 years (2021-2023), the methodology used the October 2021 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;
- For the next two years (2024 and 2025), FPL used a 50/50 blend of the October 2021 forward curve and the most current projections at the time from The PIRA Energy Group (now part of S&P Global);
- For the 2026 through 2040 period, FPL used the annual projections from The PIRA Energy Group for oil and natural gas commodity prices;
- d. For the period beyond 2040 for oil and natural gas, 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. JD Energy provided a long-term price forecast through 2065 of the delivered price of coal to Scherer. The most recent forecast was issued in March 2021.
- b. The delivered coal price forecast for Plant Scherer is updated with PRB minemouth/FOB coal price updates from JD Energy in their March 2021 long-term forecast.
- c. Currently coal price forecasts for Plant Daniel are kept the same as the March 2021 longterm coal forecast provided by JD Energy.
- d. Beyond 2065, prices are escalated at JD Energy's annual price escalation from 2064 to 2065.

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 currently has under contract 4.0 billion cubic feet (Bcf) of firm natural gas storage capacity at the Bay Gas storage facility in Alabama. This contract has been extended through March 31, 2024. 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 storage contract with SG Resources Mississippi, L.L.C. (Southern Pines Storage) for 1 Bcf of storage capacity. The current contract with Southern Pines Storage is set to expire March 31, 2025. This storage facility is located in Mississippi and is connected to numerous pipelines including FGT, Southeast Supply Header, and Transco. For FPL Northwest Florida, FPL currently holds total storage capacity of 1.93 Bcf across three facilities: Bay Gas (0.58 Bcf), Leaf River (0.85 Bcf), and Petal (0.50 Bcf). This storage capacity is utilized for Plant Smith, Gulf Clean Energy Center, and the SENA (Shell) PPA. When FPL's Northwest Area is electrically connected to the rest of FPL in mid-2022, this storage capacity will be turned back to the Southern Company and will not be retained by FPL.

Over the past several years, FPL has acquired upstream transportation capacity on several pipelines to help mitigate the risk of offshore supply problems caused by severe weather in the

Gulf of Mexico. While this transportation capacity has reduced FPL's offshore exposure, a portion of FPL's supply portfolio remains tied to offshore natural gas sources. Therefore, natural gas storage remains an important tool to help mitigate the risk of supply disruptions.

FPL's ability to manage the daily "swings" in natural gas demand that can occur on its system due to weather and unit availability changes is 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 the ability to manage its supply and demand on a daily basis. The gas storage portfolio is continually evaluated and subscription for additional gas storage capacity is possible if needed to help increase reliability, provide the necessary flexibility to respond to demand changes, and diversify the overall portfolio.

4. Securing Additional Natural Gas:

Significant reliance upon natural gas to produce electricity for FPL's customers is projected to continue for a number of years due to FPL's growing load. The addition of highly fuel efficient 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 this new CC unit. In addition, as discussed above, FPL plans to add significantly more solar PV facilities that utilize no fossil fuel and will reduce FPL's reliance on natural gas throughout the ten year period of the Site Plan and beyond.

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, Okeechobee, and Martin plants. The new pipeline system will also allow needed support for gas-fueled FPL generation facilities in several counties.

Southern Company Services (SCS) is currently managing the fuel supply for the power plants in FPL's Northwest Florida Region with the exception of Plant Smith and the Gulf Clean Energy Center. The fuel supply responsibilities for those plants were transitioned to Gulf (now FPL's

Northwest Florida Region) in 2020. FPL will continue to work with SCS to transition fuel-related activities prior to pool exit in mid-2022.

5. Nuclear Fuel Cost Forecast

This section discusses 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, U3O8 (sometimes referred to as yellowcake).
- **(2) Conversion:** During the second step, the U3O8 is chemically converted into UF6 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 2.0% 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 because 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.
 in the short-term, 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 remains stable, with laws enacted in 2020 to resolve the import of Russian-enriched uranium, by allowing continued imports of Russian-enriched uranium to meet about 15-24% of needs from 2022-2040 for currently operating and new units. 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 increases 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 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 and/or cancelled. 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. There is adequate projected supply, including planned and prospective mine expansions, to meet FPL demands, including operation of the two Turkey Point nuclear units even through the 2052 and 2053 dates that are a part of FPL's SLR requests for these units.

Schedule 5: Actual Fuel Requirements

	Actual 1/											
	Fuel Requirements	<u>Units</u>	2	<u> 2020</u>	2	<u>2021</u>						
			FPL	Gulf	FPL	Gulf						
(1)	Nuclear	Trillion BTU	307	0	305	0						
(2)	Coal	1,000 TON	1,135	1,389	1,414	1,142						
(3)	Residual (FO6) - Total	1,000 BBL	94	0	137	0						
(4)	Steam	1,000 BBL	94	0	137	0						
(5)	Distillate (FO2) - Total	1,000 BBL	89	8	121	68						
(6)	Steam	1,000 BBL	5	8	4	67						
(7)	CC	1,000 BBL	65	0	96	0						
(8)	СТ	1,000 BBL	19	0	21	1						
(9)	Natural Gas - Total	1,000 MCF	656,163	83,576	643,087	84,794						
(10)	Steam	1,000 MCF	27,492	4,764	24,792	19,138						
(11)	CC	1,000 MCF	624,821	35,973	612,645	32,933						
(12)	CC PPAs - Gas	1,000 MCF	0	42,839	0	31,126						
(13)	СТ	1,000 MCF	3,850	0	5,650	1,596						
(14)	Other ^{2/}	1,000 MCF	0	251	0	140						

^{1/} Source: A Schedules.

Note: Solar contributions are provided on Schedules 6.1 and 6.2.

^{2/} Perdido Units' landfill gas burn included in Other

Recommended Plan Schedule 5: Forecasted Fuel Requirements

			Forecasted									
	Fuel Requirements	<u>Units</u>	<u>2022</u>	2023	<u>2024</u>	<u>2025</u>	<u>2026</u>	2027	2028	2029	<u>2030</u>	2031
							FPL	_				
(1)	Nuclear	Trillion BTU	306	297	294	305	303	301	307	303	301	306
(2)	Coal	1,000 TON	1,223	358	36	21	16	6	12	0	0	0
(3)	Residual (FO6) - Total	1,000 BBL	0	2	2	0	0	0	0	0	0	0
٠,	, ,	· ·	0	2	2	0	0		0			
(4)	Steam	1,000 BBL	U	2	2	U	U	0	U	0	0	0
(5)	Distillate (FO2) - Total	1,000 BBL	2	1	2	2	3	3	4	3	3	4
(6)	Steam	1,000 BBL	2	1	2	2	3	3	4	3	3	3
(7)	CC	1,000 BBL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(8)	CT	1,000 BBL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
(9)	Natural Gas - Total	1,000 MCF	620,017	621,630	636,121	639,002	629,639	627,411	617,411	608,202	604,794	603,193
(10)	Steam	1,000 MCF	628	4,805	7,141	8,430	7,650	5,053	5,166	4,678	5,321	2,253
(11)	CC	1,000 MCF	586,405	603,203	625,636	628,330	619,770	619,101	610,476	602,114	597,961	598,992
(12)	CC PPAs - Gas	1,000 MCF	31,448	9,191	0	0	0	0	0	0	0	0
(13)	CT	1,000 MCF	1,537	4,430	3,344	2,242	2,219	3,256	1,769	1,410	1,512	1,948
(14)	Other 2/	1,000 MCF	256	256	256	256	256	256	256	256	0	0

^{1/} Source: A Schedules.

2/ Perdido Units' landfill gas burn included in Other

Note: Solar contributions are provided on Schedules 6.1 and 6.2.

Business as Usual Plan Schedule 5: Forecasted Fuel Requirements

			Forecasted									
	Fuel Requirements	<u>Units</u>	<u>2022</u>	2023	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	2028	2029	<u>2030</u>	<u>2031</u>
							FPI	-				
(1)	Nuclear	Trillion BTU	306	297	294	305	303	301	307	303	301	306
(2)	Coal	1,000 TON	1,232	374	32	21	12	8	12	0	0	0
(3)	Residual (FO6) - Total	1,000 BBL	0	5	6	4	4	0	0	0	0	0
(4)	Steam	1,000 BBL	0	5	6	4	4	0	0	0	0	0
(5)	Distillate (FO2) - Total	1,000 BBL	2	2	3	2	4	3	4	4	3	4
(6)	Steam	1,000 BBL	2	2	3	2	4	3	4	4	3	4
(7)	CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0
(8)	СТ	1,000 BBL	0	0	0	0	0	0	0	0	0	0
(9)	Natural Gas - Total	1,000 MCF	620,383	621,558	636,380	639,227	629,424	627,598	618,344	609,497	605,656	603,479
(10)	Steam	1,000 MCF	628	4,805	7,141	8,430	7,650	5,053	5,166	4,678	5,321	2,253
(11)	CC	1,000 MCF	586,405	603,203	625,636	628,330	619,770	619,101	610,476	602,114	597,961	598,992
(12)	CC PPAs - Gas	1,000 MCF	31,447	9,012	0	0	0	0	0	0	0	0
(13)	СТ	1,000 MCF	1,903	4,537	3,603	2,467	2,004	3,444	2,702	2,705	2,373	2,234
(14)	Other 2/	1,000 MCF	256	256	256	256	256	256	256	256	0	0

^{1/} Source: A Schedules.

2/ Perdido Units' landfill gas burn included in Other

Note: Solar contributions are provided on Schedules 6.1 and 6.2.

Schedule 6.1 Actual Energy Sources

		Actual 1/									
	Energy Sources	<u>Units</u>	20	<u>)20</u>	20	<u>021</u>					
			FPL	Gulf	FPL	Gulf					
(1)	Annual Energy Interchange ^{2/}	GWH	0	(2,671)	0	(2,328)					
(2)	Nuclear	GWH	28,221	0	28,342	0					
(3)	Coal	GWH	1,636	2,067	2,089	1,765					
(4) (5)	Residual(FO6) -Total Steam	GWH GWH	53.1 53	0.0 0	75.4 75	0 0					
(6)	Distillate(FO2) -Total	GWH	56.0	0.0	82.9	0.0					
(7)	Steam	GWH	2	0	2	0					
(8)	CC	GWH	54	0	81	0					
(9)	СТ	GWH	0	0	0	0					
(10)	Natural Gas -Total	GWH	95,278	10,474	90,903	10,720					
(11)	Steam	GWH	2,357	383	2,022	1,547					
(12)	CC	GWH	92,553	4,967	88,361	4,711					
(13)	CC PPAs - Gas	GWH	0	5,053	0	4,202					
(14)	СТ	GWH	368	70	520	259					
(15)	Solar 3/	GWH	3,785	392	5,746	409					
(16)		GWH	2,835	158	3,049	182					
(17)	Solar Together 4/	GWH	920	0	2,668	0					
(18)	Solar Thermal	GWH	30	0	29	0					
(19)	Solar PPAs	GWH	0	234	0	227					
(20)	Wind PPAs	GWH	0	1,031	0	1,031					
(21)	Other 5/	GWH	(1,509)	372	(2,071)	(8)					
	Net Energy For Load 6/	GWH	127,519	11,664	125,179	11,589					

^{1/} Sources: Actuals for FPL and Gulf: A Schedules and Actual Data for Next Generation Solar Centers Report.

^{2/} Represents interchange between FPL/Gulf and other utilities. For Gulf, this number represents the net energy exchange with Southern Co.

^{3/} Represents output from FPL and Gulf's Solar PV, Solar Together (ST), Solar Thermal, and Solar PPA facilities.

^{4/} The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. Environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced are retired on the participant's behalf.

^{5/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.

Schedule 6.2 Actual Energy Sources % by Fuel Type

		_	Actual 1/									
	Energy Source	<u>Units</u>	20	20	20	021						
	·		FPL	Gulf	FPL	Gulf						
(1)	Annual Energy Interchange ^{2/}	%	0.0	(22.9)	0.0	(20.1)						
(2)	Nuclear	%	22.1	0.0	22.6	0.0						
(3)	Coal	%	1.3	17.7	1.7	15.2						
(4)	Residual (FO6) -Total	%	0.0	0.0	0.1	0.0						
(5)	Steam	%	0.0	0.0	0.1	0.0						
(6)	Distillate (FO2) -Total	%	0.0	0.0	0.0	0.0						
(7)	Steam	%	0.0	0.0	0.1	0.0						
(8)	CC	%	0.0	0.0	0.0	0.0						
(9)	СТ	%	0.0	0.0	0.1	0.0						
(10)	Natural Gas -Total	%	74.7	89.8	72.6	92.5						
(11)		%	1.8	3.3	1.6	13.4						
(12)		%	72.6	42.6	70.6	40.7						
	CC PPAs - Gas	%	0.0	43.3	0.0	36.3						
(14)	СТ	%	0.3	0.6	0.4	2.2						
(15)	Solar 3/	%	3.0	3.4	4.6	3.5						
(16)	PV	%	0.0	1.4	2.4	1.6						
(17)	Solar Together 4/	%	3.0	0.0	2.1	0.0						
(18)	Solar Thermal	%	2.2	0.0	0.0	0.0						
(19)	Solar PPAs	%	0.7	2.0	0.0	2.0						
(20)	Wind PPAs	%	0.0	8.8	0.0	8.9						
(21)	Other 5/	%	(1.2)	3.2	(1.7)	(0.1)						
			100	100	100	100						

^{1/} Sources: Actuals for FPL and Gulf: A Schedules and Actual Data for Next Generation Solar Centers Report.

^{2/} Represents interchange between FPL/Gulf and other utilities. For Gulf, this number represents the net energy exchange with Southern Co.

^{3/} Represents output from FPL and Gulf's Solar PV, Solar Together, Solar Thermal (ST), and Solar PPA facilities.

^{4/} The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. At the request of any ST participant, environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced will be retired on the participant's behalf.

^{5/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.

Recommended Plan Schedule 6.1 Forecasted **Energy Sources**

(1)	Energy Sources Annual Energy Interchange 1/	<u>Units</u> GWH	2022 0	2023 0	2024 0	2025 0	2026 0	2027 0	2028 0	2029 0	2030 0	2031 0
(2)	Nuclear	GWH	28,896	28,089	27,741	28,836	28,623	28,428	29,005	28,603	28,432	28,919
(3)	Coal	GWH	1,946	566	56	33	25	9	19	0	0	0
(4) (5)	Residual(FO6) -Total Steam	GWH GWH	0 0	1 1	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0
(6) (7) (8) (9)	Distillate(FO2) -Total Steam CC CT	GWH GWH GWH	0 0 0	0 0 0	0 0 0	0 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0
(11) (12)	Steam CC CC PPAs - Gas	GWH GWH GWH GWH	95,435 63 90,873 4,354 146	96,595 557 94,326 1,283 430	95,080 451 94,306 0 323	91,811 397 91,198 0 216	91,569 461 90,893 0 214	91,399 625 90,458 0 316	90,721 471 90,078 0 172	91,150 426 90,587 0 136	91,255 383 90,725 0 147	90,495 314 89,992 0 188
(15) (16) (17) (18) (19)	Solar ^{2/} PV Solar Together ^{3/} Solar Thermal Solar PPAs	GWH GWH GWH GWH	7,958 4,576 3,129 30 223	10,391 6,074 4,065 30 222	13,916 8,080 5,584 30 222	17,413 10,132 7,029 30 221	19,137 11,570 7,317 30 220	20,410 12,866 7,295 30 219	22,067 14,527 7,291 30 219	23,943 16,443 7,252 30 218	25,867 18,390 7,230 30 217	27,952 20,497 7,208 30 217
` '	Wind PPAs Other 4/ Net Energy For Load 5/	GWH GWH	1,031 1,439 136,705	1,031 1,485 138,159	1,033 1,560 139,388	1,031 1,593 140,717	1,031 1,593 141,979	1,031 1,512 142,790	1,033 1,458 144,305	1,031 1,323 146,051	1,031 1,215 147,801	1,031 1,101 149,499

^{1/} Represents interchange between FPL and other utilities.

^{2/} Represents output from FPL's Solar PV, Solar Together, Solar Thermal, and Solar PPA facilities.

^{3/} The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. Environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced are retired on the participant's behalf.

^{4/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of

Economy and other Power Sales.

5/ Net Energy For Load values for the years 2022 - 2031 are also shown in Col. (2) on Schedule 3.3 and match NEL for both the Recommended and Business as Usual plans

Recommended Plan Schedule 6.2 Forecasted Energy Sources % by Fuel Type

	Energy Source	Units	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
(1)	Annual Energy Interchange 1/	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	Nuclear	%	21.1	20.3	19.9	20.5	20.2	19.9	20.1	19.6	19.2	19.3
(3)	Coal	%	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(4)	Residual (FO6) -Total	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(5)	Steam	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(6)	Distillate (FO2) -Total	%	0.0	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
(8)	CC	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(9)	СТ	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(10)	Natural Gas -Total	%	69.8	69.9	68.2	65.2	64.5	64.0	62.9	62.4	61.7	60.5
(11)	Steam	%	0.0	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2
(12)	CC	%	66.5	68.3	67.7	64.8	64.0	63.4	62.4	62.0	61.4	60.2
(13)	CC PPAs - Gas	%	3.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(14)	СТ	%	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
(15)	Solar 2/	%	5.8	7.5	10.0	12.4	13.5	14.3	15.3	16.4	17.5	18.7
(16)	PV	%	3.3	4.4	5.8	7.2	8.1	9.0	10.1	11.3	12.4	13.7
(17)		%	2.3	2.9	4.0	5.0	5.2	5.1	5.1	5.0	4.9	4.8
(18)	Solar Thermal	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(19)	Solar PPAs	%	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
(20)	Wind PPAs	%	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
(21)	Other 4/	%	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.8	0.7
			100	100	100	100	100	100	100	100	100	100

Represents interchange between FPL and other utilities.
 Represents output from FPL's Solar PV, Solar Together, Solar Thermal, and Solar PPA facilities.
 The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. Environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced are retired on the participant's behalf.

^{4/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.

Business as Usual Plan Schedule 6.1 Forecasted Energy Sources

(1)	Energy Sources Annual Energy Interchange 1/	<u>Units</u> GWH	2022 0	2023 0	2024 0	2025 0	2026 0	2027 0	2028 0	2029 0	2030 0	2031 0
(2)	Nuclear	GWH	28,898	28,092	27,740	28,837	28,625	28,428	29,008	28,607	28,433	28,919
(3)	Coal	GWH	1,959	591	49	33	19	13	19	0	0	0
(4) (5)	Residual(FO6) -Total Steam	GWH GWH	0	4 4	4	3	2 2	0	0	0	0 0	0
(6) (7) (8) (9)	Distillate(FO2) -Total Steam CC CT	GWH GWH GWH	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0	1 1 0 0
(10) (11) (12) (13) (14)	CC PPAs - Gas	GWH GWH GWH GWH	95,441 67 90,838 4,354 182	96,565 574 94,293 1,258 440	95,084 484 94,252 0 348	91,802 441 91,123 0 238	91,570 444 90,932 0 194	91,346 652 90,359 0 335	90,611 488 89,861 0 262	90,990 501 90,226 0 263	91,115 478 90,406 0 231	90,484 385 89,882 0 217
(15) (16) (17) (18) (19)		GWH GWH GWH GWH	7,957 4,576 3,129 30 223	10,391 6,074 4,065 30 222	13,915 8,080 5,584 30 222	17,412 10,132 7,029 30 221	19,137 11,570 7,317 30 220	20,410 12,866 7,295 30 219	22,067 14,527 7,291 30 219	23,943 16,443 7,252 30 218	25,867 18,390 7,230 30 217	27,785 20,331 7,208 30 217
(20)		GWH	1,031	1,031	1,033	1,031	1,031	1,031	1,033	1,031	1,031	1,031
(21)	Other 4/	GWH	1,418	1,484	1,561	1,598	1,595	1,561	1,566	1,479	1,355	1,279
	Net Energy For Load 5/	GWH	136,705	138,159	139,388	140,717	141,979	142,790	144,305	146,051	147,801	149,499

^{1/} Represents interchange between FPL and other utilities.

^{2/} Represents output from FPL's Solar PV, Solar Together, Solar Thermal, and Solar PPA facilities.

^{3/} The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. Environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced are retired on the participant's behalf.

^{4/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.

^{5/} Net Energy For Load values for the years 2022 - 2031 are also shown in Col. (2) on Schedule 3.3 and match NEL for both the Recommended and Business as Usual plans

Business as Usual Schedule 6.2 Forecasted Energy Sources % by Fuel Type

	Energy Source	Units	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
(1)	Annual Energy Interchange 1/	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	Nuclear	%	21.1	20.3	19.9	20.5	20.2	19.9	20.1	19.6	19.2	19.3
(3)	Coal	%	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(4)	Residual (FO6) -Total	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(5)	Steam	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(6)	Distillate (FO2) -Total	%	0.0	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
(8)	CC	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(9)	СТ	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(10)	Natural Gas -Total	%	69.8	69.9	68.2	65.2	64.5	64.0	62.8	62.3	61.6	60.5
(11)	Steam	%	0.0	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3
(12)	CC	%	66.4	68.2	67.6	64.8	64.0	63.3	62.3	61.8	61.2	60.1
(13)	CC PPAs - Gas	%	3.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(14)	СТ	%	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1
(15)	Solar 2/	%	5.8	7.5	10.0	12.4	13.5	14.3	15.3	16.4	17.5	18.6
(16)		%	3.3	4.4	5.8	7.2	8.1	9.0	10.1	11.3	12.4	13.6
(17)	Solar Together 3/	%	2.3	2.9	4.0	5.0	5.2	5.1	5.1	5.0	4.9	4.8
(18)	Solar Thermal	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(19)	Solar PPAs	%	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
(20)	Wind PPAs	%	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
(21)	Other 4/	%	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.0	0.9	0.9
			100	100	100	100	100	100	100	100	100	100

Represents interchange between FPL and other utilities.
 Represents output from FPL's Solar PV, Solar Together, Solar Thermal, and Solar PPA facilities.
 The values shown represent energy produced from FPL-owned solar facilities that are part of FPL's SolarTogether (ST) program. Environmental attributes in the form of renewable energy certificates for that participant's allocation of the total energy produced are retired on the participant's behalf.

^{4/} Represents a forecast of energy expected to be purchased from Qualifying Facilities, Independent Power Producers, etc., net of Economy and other Power Sales.

Recommended Plan 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)
					Total			Firm	Т	otal		Т	otal	Genera	ation Only
	Firm	Firm	Firm		Firm	Total		Summer	Re	serve		Re	serve	Re	eserve
	Installed	Capacity	Capacity	Firm	Capacity	Peak		Peak	Margii	n Before	Scheduled	Marg	jin After	Mar	gin After
August of	Capacity	Import	Export	QF	Available	Demand	DSM	Demand	Maint	enance	Maintenance	Maint	tenance	Main	tenance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Peak	MW	MW	% of Peak	MW	% of Peak
2022	30,908	1,125	0	4	32,037	27,310	1,827	25,483	6,555	25.7	0	6,555	25.7	4,728	17.3
2023	31,532	240	0	4	31,775	27,735	1,872	25,863	5,913	22.9	0	5,913	22.9	4,041	14.6
2024	31,892	240	0	4	32,136	28,136	1,920	26,216	5,920	22.6	0	5,920	22.6	4,000	14.2
2025	32,345	240	0	4	32,589	28,419	1,953	26,466	6,123	23.1	0	6,123	23.1	4,170	14.7
2026	32,502	240	0	4	32,746	28,800	1,977	26,823	5,922	22.1	0	5,922	22.1	3,945	13.7
2027	32,945	240	0	0	33,185	29,103	2,004	27,099	6,086	22.5	0	6,086	22.5	4,082	14.0
2028	33,486	240	0	0	33,726	29,476	2,035	27,441	6,285	22.9	0	6,285	22.9	4,250	14.4
2029	34,084	239	0	0	34,324	29,986	2,069	27,917	6,406	22.9	0	6,406	22.9	4,337	14.5
2030	34,499	239	0	0	34,739	30,485	2,103	28,382	6,357	22.4	0	6,357	22.4	4,254	14.0
2031	35,044	239	0	0	35,283	30,924	2,138	28,786	6,497	22.6	0	6,497	22.6	4,359	14.1

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 2022 load forecast without incremental DSM or cumulative load management.

Col.(8) represents cumulative load management capability, plus incremental conservation and load management, from 9/2021-on intended for use with the 2022 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)

Recommended Plan

Schedule 7.2

Forecast of Capacity, Demand, and Scheduled Maintenance At Time Of Extreme Winter Peak

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
								Firm				Т	otal		
					Total			Extreme	To	otal	Scheduled	Re	serve	Gene	ration Only
	Firm	Firm	Firm		Firm	Total		Winter	Res	serve	Maintenance	Marg	in After	R	eserve
	Installed	Capacity	Capacity	Firm	Capacity	Peak		Peak	Margin Before and Liquid		and Liquid	Maint	enance	Ma	rgin After
January of	Capacity	Import	Export	QF	Available	Demand	DSM	Demand	Maint	enance	Fuel Deration	and E	Deration	Mai	ntenance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Peak	MW	MW	% of Peak	MW	% of Peak
2022	30,702	1,104	0	484	32,290	31,657	1,827	29,830	2,459	8.2	0	2,459	8.2	632	2.0
2023	32,045	1,104	0	4	33,152	32,201	1,872	30,329	2,823	9.3	0	2,823	9.3	951	3.0
2024	31,752	219	0	4	31,975	32,762	1,920	30,842	1,132	3.7	133	1,000	3.2	(920)	-2.8
2025	31,922	219	0	4	32,145	33,144	1,953	31,191	954	3.1	500	454	1.5	(1,499)	-4.5
2026	31,965	219	0	4	32,187	33,623	1,977	31,646	541	1.7	424	117	0.4	(1,860)	-5.5
2027	32,299	219	0	0	32,518	34,022	2,004	32,018	500	1.6	482	18	0.1	(1,986)	-5.8
2028	32,703	219	0	0	32,922	34,502	2,035	32,467	455	1.4	442	13	0.0	(2,022)	-5.9
2029	33,176	219	0	0	33,395	35,007	2,069	32,938	457	1.4	442	15	0.0	(2,054)	-5.9
2030	33,597	219	0	0	33,816	35,485	2,103	33,382	434	1.3	424	11	0.0	(2,092)	-5.9
2031	34.153	219	0	0	34.372	36.045	2.138	33.907	465	1.4	424	41	0.1	(2.097)	-5.8

For FPL's Recommended plan, resources are added to meet the increased Winter peak exactly, with no additional reserves. Because of the additional resources added in the Recommended resource plan to meet the higher forecasted load, this resource plan also meets a 20% minimum reserve margin criterion if applied to a P50 Winter load forecast.

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 2022 load forecast without incremental DSM or cumulative load management.

Col.(8) represents cumulative load management capability, plus incremental conservation and load management, from 9/2021-on intended for use with the 2022 load forecast. As a proxy for increased performance of load control during extreme winter events, this value is equivalent to the Summer DSM demand reduction. 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, as well as the deration of units running on liquid fuel oil instead of natural gas.

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)

Business-As-Usual Plan 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)
					Total			Firm	Т	otal		Т	otal	Gener	ation Only
	Firm	Firm	Firm		Firm	Total		Summer	Re	serve		Re	serve	Re	eserve
	Installed	Capacity	Capacity	Firm	Capacity	Peak		Peak	Margi	n Before	Scheduled	Marg	jin After	Mar	gin After
August of	Capacity	Import	Export	QF	Available	Demand	DSM	Demand	Main	tenance	Maintenance	Maint	tenance	Mair	itenance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Peak	MW	MW	% of Peak	MW	% of Peak
2022	30,908	1,125	0	4	32,037	27,310	1,827	25,483	6,555	25.7	0.0	6,555	25.7	4,728	17.3
2023	31,532	240	0	4	31,775	27,735	1,872	25,863	5,913	22.9	0.0	5,913	22.9	4,041	14.6
2024	31,892	240	0	4	32,136	28,136	1,920	26,216	5,920	22.6	0.0	5,920	22.6	4,000	14.2
2025	32,345	240	0	4	32,589	28,419	1,953	26,466	6,123	23.1	0.0	6,123	23.1	4,170	14.7
2026	32,502	240	0	4	32,746	28,800	1,977	26,823	5,922	22.1	0.0	5,922	22.1	3,945	13.7
2027	32,645	240	0	0	32,885	29,103	2,004	27,099	5,786	21.4	0.0	5,786	21.4	3,782	13.0
2028	32,826	240	0	0	33,066	29,476	2,035	27,441	5,625	20.5	0.0	5,625	20.5	3,590	12.2
2029	33,287	239	0	0	33,527	29,986	2,069	27,917	5,609	20.1	0.0	5,609	20.1	3,540	11.8
2030	33,864	239	0	0	34,104	30,485	2,103	28,382	5,722	20.2	0.0	5,722	20.2	3,619	11.9
2031	34,291	239	0	0	34,531	30,924	2,138	28,786	5,744	20.0	0.0	5,744	20.0	3,606	11.7

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 2022 load forecast without incremental DSM or cumulative load management.

Col.(8) represents cumulative load management capability, plus incremental conservation and load management, from 9/2021-on intended for use with the 2022 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)

Business-As-Usual Plan 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)
					Total			Firm	T	otal		Т	otal	Gene	ration Only
	Firm	Firm	Firm		Firm	Total		Winter	Res	serve		Re	serve	F	Reserve
	Installed	Capacity	Capacity	Firm	Capacity	Peak		Peak	Margir	Before	Scheduled	Marg	in After	Ma	rgin After
January of	Capacity	Import	Export	QF	Available	Demand	DSM	Demand	Maintenance		Maintenance	nce Maintenance		Mai	ntenance
Year	MW	MW	MW	MW	MW	MW	MW	MW	MW	% of Peal	MW	MW	% of Peak	MW	% of Peak
2022	28,960	1,104	0	4	30,068	22,551	1,376	21,175	8,892	42.0	0	8,892	42.0	7,516	33.3
2023	30,246	1,104	0	4	31,353	22,946	1,407	21,539	9,814	45.6	0	9,814	45.6	8,407	36.6
2024	29,796	219	0	4	30,019	23,344	1,438	21,906	8,112	37.0	0	8,112	37.0	6,674	28.6
2025	29,753	219	0	4	29,976	23,590	1,470	22,120	7,855	35.5	0	7,855	35.5	6,385	27.1
2026	29,773	219	0	4	29,995	23,936	1,499	22,437	7,559	33.7	0	7,559	33.7	6,060	25.3
2027	29,732	219	0	0	29,951	24,201	1,529	22,672	7,279	32.1	0	7,279	32.1	5,750	23.8
2028	29,736	219	0	0	29,955	24,545	1,565	22,980	6,974	30.3	0	6,974	30.3	5,409	22.0
2029	30,287	219	0	0	30,506	24,919	1,602	23,317	7,190	30.8	0	7,190	30.8	5,588	22.4
2030	31,036	219	0	0	31,255	25,273	1,642	23,631	7,624	32.3	0	7,624	32.3	5,982	23.7
2031	31,688	219	0	0	31,907	25,681	1,682	23,999	7,908	33.0	0	7,908	33.0	6,226	24.2

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.(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)

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

Col.(7) reflects the 2022 load forecast without incremental DSM or cumulative load management.

Col.(8) represents cumulative load management capability, plus incremental conservation and load management, from 9/2021-on intended for use with the 2022 load forecast.

Schedule 8 - Recommended Resource Plan Planned And Prospective Generating Facility Additions And Changes ⁽¹⁾: FPL

(2) (3) (4) (5) (5) (7) (8) (10) (11) (12) (13)(14) (15)Firm Comm. Expected Gen. Max. Net Capability (2) Unit Unit Start In-Service Retirement Nameplate Winter Summer Plant Name Mo./Yr. ĸw MW MW ADDITIONS/ CHANGES **FPL** 2022 Ghost Orchid Solar 3 Hendry County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 Sawgrass Solar 3/ Hendry County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 2 33 Р Sundew Solar 3/ St. Lucie County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 Р 35 Immokalee Solar 3 Collier County P۷ Solar Solar N/A N/A 1st Q 2022 Unknown 74.500 32 Р Grove Solar 3/ Indian River P۷ Solar Solar N/A N/A 74.500 Р 1st Q 2022 Unknown 24 Elder Branch Solar 3/ Manatee County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 31 NG FO2 TK TK Fort Myers Upgrade Lee County СТ 1st Q 2022 Unknown 863.090 32 OP Lansing Smith Upgrade Bay County CC NG No PL No 1st Q 2022 Unknown 656 870 15 OΡ Lauderdale Upgrade 6 **Broward County** СТ NG FO2 PL TK 1st Q 2022 Unknown 1.147.500 45 OP NG No PL Martin Upgrade Martin County СС 1st Q 2022 Unknown 612,000 29 OP 3 No Sanford Upgrade Volusia County СС NG No PL 1st Q 2022 Unknown 1,265,732 Turkey Point Upgrade Miami Dade County СС NG FO2 PL TK 1st Q 2022 Unknown 1.301.382 56 ΩP Manatee Upgrade NG FO6 PL WA 3 Manatee County ST 1st Q 2022 Unknown 1,301,382 95 OP Р Scherer Retirement ST SUB No RR No 680,368 Monroe, GA Jul-89 1st Q 2022 (634) (635)NG FO6 PL WA 2nd Q 2022 1,301,382 OP Manatee County ST Unknown Manatee Upgrade 92 Dania Beach Clean Energy Center Broward County СС NG FO2 PL WA 2nd Q 2022 Unknown 1.431.400 1.258 Р Martin Upgrade 8 Martin County CC: NG FO2 PL TK 3rd Q 2022 Unknown 1 301 382 11 ΩP Solar Degradation 3/ N/A N/A N/A N/A N/A N/A N/A ОТ N/A N/A N/A nges/Additions Total: 2022 Cha (267) 917 2023 Dania Beach Clean Energy Center Broward County NG FO2 PL WA 3rd Q 2022 Unknown 1.431.400 1.261 Manatee Upgrade Manatee County NG No PL No 4th Q 2022 Unknown 1,301,382 29 OP Everglades Solar Miami Dade County ΡV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 26 Р P Pink Trail Solar PV Solar Solar N/A N/A 24 St. Lucie County 1st Q 2023 Unknown 74.500 Bluefield Preserve Solar 3 Solar Solar N/A N/A 74,500 Р St. Lucie County 1st Q 2023 Unknown 22 1st Q 2023 Р Cavendish Solar³ Okeechobee County Solar Solar N/A N/A 74.500 31 Anhinga Solar 3/ Clay County Solar Solar N/A N/A 1st Q 2023 Unknown 74,500 29 Р Blackwater River Solar 3 Santa Rosa County PV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 28 Р Chipola Solar 3 Solar Solar N/A N/A Р Calhoun County PV 1st Q 2023 Unknown 74.500 38 Flowers Creek Solar 3 Calhoun County Solar Solar N/A N/A 1st Q 2023 74,500 33 First City Solar 3/ Escambia County Solar Solar N/A N/A Р 1st Q 2023 Unknown 74,500 29 Apalachee Solar 3 Jackson County PV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 38 Р Wild Azalea Solar 3 Р Gadsden County PV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 40 Chautauqua Solar 3 Р PV Solar Solar N/A N/A 74,500 Walton County 1st Q 2023 Unknown 41 Shirer Branch Solar 3/ Solar Solar N/A N/A 1st Q 2023 74,500 Р Calhoun County Unknown 38 Saw Palmetto Solar 3/ Bay County Solar Solar N/A N/A 1st Q 2023 74,500 Unknown 39 Cypress Pond Solar 3 Washington County Solar Solar N/A N/A Р PV 1st Q 2023 Unknown 74.500 0 38 Р PV Solar Solar N/A N/A Etonia Creek Solar Putnam County 1st Q 2023 Unknown 74,500 34 NG FO2 PL OP Martin Upgrade Martin County 1st Q 2023 1,301,382 11 1,265,732 OP Sanford Upgrade Volusia County NG No PL 1st Q 2023 Sanford Upgrade Volusia County CC NG No PL No 1st O 2023 Unknown 1 265 732 q OP Sanford Upgrade Volusia County CC NG No PL No 2nd Q 2023 Unknown 1.265.732 18 OP Turkey Point Upgrade NG FO2 PL TK OP Miami Dade County 3rd Q 2023 Unknown 1,301,382 5 CC 34 No Fort Myers Upgrade Lee County СС 3rd Q 2023 Unknown 1,836,798 OF NG Solar Degradation N/A (8) ОТ 2023 Changes/Additions Total: 1,341 625

^{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-2. ES-3. I.A.3.1. I.A.3.2. I.B.3.1 and I.B.3.2.

^{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 IMW additions/changes occurring after June each year will be acounted for in reserve margin calculations in the following year. MW Difference in Changes/Additions.

^{3/} Solar MW values reflect firm capacity only, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.

^{4/} Battery MW values reflect firm capacity only, not nameplate ratings.

Schedule 8 - Recommended Resource Plan Planned And Prospective Generating Facility Additions And Changes $^{(1)}$: FPL

(4) (5) (5) (7) (8) (9) (2) (3) (10) (11) (12) (13) (14) (15) Firm Expected Gen. Max. Net Capability (2) Fuel Transport Const. Comm. Unit Start In-Service Retirement Nameplate Winter Summer Mo./Yr. Mo./Yr. Mo./Yr. KW MW MW Plant Name ADDITIONS/ CHANGES

			FPL									
Turkey Point Upgrade	5	Miami Dade County	CC	NG FO2 PL	TK	-	3rd Q 2023	Unknown	1,301,382	6	-	
Sanford Upgrade	5	Volusia County	CC	NG No PL	No	-	4th Q 2023	Unknown	1,265,732	68	17	
Fort Myers Upgrade	2	Lee County	CC	NG No PL	No	-	4th Q 2023	Unknown	1,836,798	47	-	
Terrill Creek Solar 3/	1	Clay County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	38	
Silver Palm Solar 3/	1	Palm Beach County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	3	27	
Ibis Solar 3/	1	Brevard County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	28	
Woodyard Solar 3/	1	Hendry County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	3	25	
Beautyberry Solar 3/	1	Hendry County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	26	
Turnpike Solar 3/	1	Indian River County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	28	
Monarch Solar 3/	1	Martin County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	3	26	
Caloosahatchee Solar 3/	1	Hendry County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	26	
White Tail Solar 3/	1	Martin County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	27	
Prairie Creek Solar 3/	1	DeSoto County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	3	35	
Pineapple Solar 3/	1	St. Lucie County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	27	
Canoe Solar 3/	1	Okaloosa County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	0	40	
Sparkleberry Solar 3/	1	Escambia County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	0	33	
Sambucus Solar 3/	1	Manatee County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	34	
Three Creeks Solar 3/	1	Manatee County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	2	36	
Thomas Creek Solar 3/	1	Nassau County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74,500	1	38	
Big Juniper Creek Solar 3/	1	Santa Rosa County	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	74.500	0	41	
Wild Quail Solar 3/	1	Walton County	PV	Solar Solar N/A		-	1st Q 2024	Unknown	74,500	0	42	
Pecan Tree Solar 3/	1	Walton County	PV	Solar Solar N/A	N/A	_	1st Q 2024	Unknown	74,500	0	42	
Solar PV3/	1	Unknown	PV	Solar Solar N/A	N/A	-	1st Q 2024	Unknown	223,500	13	98	
Daniel Retirement	1	Jackson County, MS	FS	C No RR	No	-	Sep-77	1st Q 2024	274.125	(251)	(251)	
Daniel Retirement	2	Jackson County, MS	FS	C No RR	No	-	Jun-81	1st Q 2024	274,125	(251)	(251)	
Martin Upgrade	8	Martin County	CC	NG FO2 PL	TK	-	1st Q 2024	Unknown	1,301,382	11	21	
Sanford Upgrade	4	Volusia County	CC	NG No PL	No	-	1st Q 2024	Unknown	1.265.732	3	17	
Okeechobee Energy Center Upgrade	1	Okeechobee County	CC	NG FO2 PL	TK	Jun-17	2nd Q 2024	Unknown	1.886.150	-	15	
Fort Myers Upgrade	2	Lee County	CC	NG No PL		-	3rd Q 2024	Unknown	1,836,798	-	18	
Turkey Point Upgrade	5	Miami Dade County	CC	NG FO2 PL	TK	-	3rd Q 2024	Unknown	1,301,382	-	67	
Solar Degradation 3/	N/A	N/A	N/A	N/A N/A N/A		-	N/A	N/A	N/A	-	(9)	
-							2024	hanges/Add	itions Total	(322)	358	•

<u>2025</u>														
Sanford Upgrade	4	Volusia County	CC	NG	No	PL	No	-	1st Q 2024	Unknown	1,265,732	2	-	OP
Okeechobee Energy Center Upgrade	1	Okeechobee County	CC	NG	FO2	PL	TK	Jun-17	2nd Q 2024	Unknown	1,886,150	22	-	OP
Pea Ridge Retirement	1	Santa Rosa	GT	NG	PL	NA	NA	-	May-98	2nd Q 2024	4,750	-	(4)	Р
Pea Ridge Retirement	2	Santa Rosa	GT	NG	PL	NA	NA	-	May-98	2nd Q 2024	4,750	-	(4)	Р
Pea Ridge Retirement	3	Santa Rosa	GT	NG	PL	NA	NA	-	May-98	2nd Q 2024	4,750	-	(4)	Р
Fort Myers Upgrade	2	Lee County	CC	NG	No	PL	No	-	3rd Q 2024	Unknown	1,836,798	70	-	OP
Solar PV ^{3/}	1	Unknown	PV	Solar	Solar	N/A	N/A	-	1st Q 2025	Unknown	1,490,000	88	542	Р
Sanford Upgrade	5	Volusia County	CC	NG	No	PL	No	-	1st Q 2025	Unknown	1,265,732	23	9	OP
Gulf Clean Energy Center Winter Only Conversion	4	Escambia County	ST	NG	-	PL	-	-	Jul-59	1st Q 2025	93,750	-	(75)	Р
Gulf Clean Energy Center Winter Only Conversion	5	Escambia County	ST	NG	-	WA	PL	-	Jul-59	1st Q 2025	93,750	-	(75)	Р
Lansing Smith Winter Only Conversion	Α	Bay County	CT	LO	-	TK	-	-	May-71	1st Q 2025	41,850	-	(32)	Р
Martin Upgrade	4	Martin County	CC	NG	No	PL	No	-	1st Q 2025	Unknown	612,000	29	-	OP
Martin Upgrade	8	Martin County	CC	NG	FO2	PL	TK	-	2nd Q 2025	Unknown	1,301,382	-	66	OP
Okeechobee Energy Center Upgrade	1	Okeechobee County	CC	NG	FO2	PL	TK	Jun-17	2nd Q 2025	Unknown	1,886,150	-	29	OP
Solar Degradation 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(11)	OT
									2025 C	Changes/Addi	itions Total:	234	441	

^{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-2, ES-3, LA.3.1, LA.3.2, I.B.3.1 and I.B.3.2.

^{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 June 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, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.

 $^{4/ \ \ \, \}text{Battery MW values reflect firm capacity only, not name plate ratings}.$

Schedule 8 - Recommended Resource Plan Planned And Prospective Generating Facility Additions And Changes $^{(1)}$: FPL

											` '	(13)	(14)	(15)
						Fu							irm	
	Unit		Unit	F	uel	Tran	sport	Const. Start	Comm. In-Service	Expected	Gen. Max. Nameplate			
Plant Na		Location		Pri.	Alt.	Pri.	Alt.	Mo./Yr.	Mo./Yr.	Mo./Yr.	KW	MW	MW	Status
ADDITIONS/ CHANGES	<u>}</u>													
					FPL									
<u>2026</u>														
Pea Ridge Re		Santa Rosa	GT	NG	PL	NA	NA	-	May-98	2nd Q 2025	,	(5)	-	P
Pea Ridge Re		Santa Rosa	GT	NG	PL	NA	NA	-	May-98	2nd Q 2025		(5)	-	Р
Pea Ridge Re		Santa Rosa	GT	NG	PL	NA	NA		May-98	2nd Q 2025	,	(5)	-	Р
Okeechobee Energy		Okeechobee County	CC	NG	FO2	PL	TK	Jun-17	2nd Q 2025	Unknown	1,886,150	43	-	OP
Fort Myers U Solar P		Lee County	CC PV	NG	No r Solar	PL	No	-	3rd Q 2025 1st Q 2026	Unknown	1,836,798	23	4	OP P
Solar P		Unknown N/A	N/A	Sola N/A	N/A	N/A	N/A N/A	-	1St Q 2026 N/A	Unknown N/A	596,000 N/A	35	178 (13)	OT
Johan Degra	Jation N/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	-				86	169	Oi
									2020	Changes/Add	illions rotal:	00	109	
2027														
Battery Sto	rage ⁴ 1	Unknown	BS	N/A	N/A	N/A	N/A	_	1st Q 2027	Unknown	300,000	300	300	Р
Solar P		Unknown	PV		Solar		N/A	_	1st Q 2027	Unknown	596.000	35	156	Р
Solar Degra		N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(13)	ОТ
									2027	Changes/Add	ditions Total:	335	443	
1														
2028														
Battery Sto		Unknown	BS	N/A	N/A	N/A	N/A	-	1st Q 2028	Unknown	400,000	400	360	Р
Solar P	/ ^{3/} 1	Unknown	PV	Sola	Solar	N/A	N/A	-	1st Q 2028	Unknown	745,000	44	195	Р
Solar Degra	dation 3/ N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(14)	ОТ
									2028	Changes/Add	litions Total:	444	541	
2029														
Scherer Reti	rement 3	Monroe County, GA	FS	С	-	RR	-	-	Jan-87	1st Q 2029	222,750	(215)	(215)	Р
Battery Sto		Unknown	BS	N/A	N/A	N/A	N/A	-	1st Q 2029	Unknown	900,000	900	637	Р
Solar P	•	Unknown	PV	Sola	r Solar	N/A	N/A	-	1st Q 2029	Unknown	894,000	53	190	Р
Solar Degra	dation 3/ N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(14)	OT
									2029	Changes/Add	ditions Total:	738	598	
<u>2030</u>														
Perdido Reti		Escambia County	IC	LFG	-	PL	-	-	Oct-10	4th Q 2029	1,600	(2)	(2)	P
Perdido Reti	-	Escambia County	IC	LFG		PL	-	-	Oct-10	4th Q 2029	1,600	(2)	(2)	P
Battery Sto		Unknown	BS	N/A		N/A	N/A	-	1st Q 2030	Unknown	600,000	600	372	Р
Solar P	2/	Unknown	PV		Solar		N/A	-	1st Q 2030	Unknown	894,000	53	58	Р
Solar Degra	dation a N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A		(21)	OT
									2030	Changes/Add	ditions Total:	650	406	
[
<u>2031</u>	41													
Battery Sto		Unknown	BS	N/A	N/A	N/A	N/A	-	1st Q 2031	Unknown	1,000,000	500	500	Р
Solar P		Unknown	PV		r Solar		N/A	-	1st Q 2031	Unknown	968,500	57	63	Р
Solar Degra	dation 3/ N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(9)	OT
<u></u>									2031	Changes/Add	ditions Total:	557	554	

^{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-2, ES-3, I.A.3.1, I.A.3.2, I.B.3.1 and I.B.3.2.

^{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 June each year will be accounted for in reserve margin calculations in the following year. MW Difference in Changes/Additions

 $^{3/\ \} Solar\ MW\ values\ reflect\ firm\ capacity\ only,\ not\ name plate\ ratings\ and\ FPL\ currently\ assumes\ 0.3\%\ degradation\ annually\ for\ PV\ output.$

^{4/} Battery MW values reflect firm capacity only, not nameplate ratings.

Schedule 8 - Business as Usual Resource Plan Planned And Prospective Generating Facility Additions And Changes (1): FPL

(2) (3) (4) (5) (5) (7) (8) (10) (11) (12) (13)(14) (15)Fuel Firm Comm. Expected Gen. Max. Net Capability (2) Unit Unit Start In-Service Retirement Nameplate Winter Summer Plant Name Mo./Yr. ĸw MW MW ADDITIONS/ CHANGES **FPL** 2022 Ghost Orchid Solar 3 Hendry County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 34 Sawgrass Solar 3/ Hendry County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 2 33 Р Sundew Solar 3/ St. Lucie County Solar Solar N/A N/A 1st Q 2022 Unknown 74,500 Р 35 Immokalee Solar 3 Collier County PV Solar Solar N/A N/A 1st Q 2022 Unknown 74.500 32 Р Grove Solar 3/ Indian River P۷ Solar Solar N/A N/A 74.500 Р 1st Q 2022 Unknown 24 Elder Branch Solar 3/ Solar Solar N/A N/A 31 Manatee County 1st Q 2022 74,500 Jul-89 Scherer Retirement Monroe, GA SUB No RR No 1st Q 2022 680,368 (634) Р Manatee Upgrade Manatee County ST NG FO6 PL WA 2nd Q 2022 Unknown 1.301.382 92 ΩP Dania Beach Clean Energy Center **Broward County** CC NG FO2 PL WA 2nd Q 2022 Unknown 1.431.400 1.258 Ρ Martin Upgrade Martin County СС NG FO2 PL TK 3rd Q 2022 1,301,382 11 OP 8 Unknown Solar Degradation 3 N/A N/A N/A N/A N/A N/A N/A N/A ОТ 2022 Changes/Addition ns Total: (623) 917 2023 Dania Beach Clean Energy Center Broward County NG FO2 PL WA 3rd Q 2022 1,431,400 Unknown 1,261 Manatee County Manatee Upgrade CC NG No PL No 4th Q 2022 Unknown 1,301,382 29 OP Everglades Solar 3 Miami Dade County PV Solar Solar N/A N/A 1st O 2023 Unknown 74 500 26 Р Р PV Pink Trail Solar St. Lucie County Solar Solar N/A N/A 1st Q 2023 Unknown 74,500 3 24 Bluefield Preserve Solar 3 St. Lucie County P\/ Solar Solar N/A N/A 1st Q 2023 Unknown 74,500 22 Р Okeechobee County Cavendish Solar³ PV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 31 Р Anhinga Solar 3/ Р Clay County Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 29 Blackwater River Solar 3/ Santa Rosa County Solar Solar N/A N/A 1st Q 2023 Unknown 74,500 28 Chipola Solar 3 Calhoun County PV Solar Solar N/A N/A 1st Q 2023 Unknown 74 500 38 Р Flowers Creek Solar Calhoun County ΡV Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 33 Р P First City Solar 3 Escambia County P۷ Solar Solar N/A N/A 1st Q 2023 74.500 29 Unknown Apalachee Solar 3/ Solar Solar N/A N/A 1st Q 2023 74,500 Jackson County Unknown 38 Wild Azalea Solar 3/ Gadsden County Solar Solar N/A N/A 1st Q 2023 Р Unknown 74,500 40 Chautauqua Solar Walton County P\/ Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 41 Р P Shirer Branch Solar 3/ Solar Solar N/A N/A Calhoun County 1st Q 2023 Unknown 74,500 38 Saw Palmetto Solar 3 Solar Solar N/A N/A Bay County P۷ 1st Q 2023 Unknown 74.500 39 Cypress Pond Solar 3 Washington County Solar Solar N/A N/A 1st Q 2023 Unknown 74.500 38 Р Etonia Creek Solar 3/ Putnam County PV Solar Solar N/A N/A 1st Q 2023 Unknown 74,500 34 Р Martin Upgrade Martin County СС NG FO2 PL TK 1st Q 2023 Unknown 1,301,382 11 OP Sanford Upgrade Volusia County CC NG No PL No 1st Q 2023 Unknown 1.265.732 9 OP Sanford Upgrade СС NG No PL No 2nd Q 2023 Unknown 1,265,732 OP Volusia County 18 Turkey Point Upgrade Miami Dade County NG FO2 PL 3rd Q 2023 OP Fort Myers Upgrade 2 Lee County NG No PL No 3rd Q 2023 Unknown 1,836,798 OP Solar Degradation 3 N/A N/A N/A N/A N/A N/A N/A N/A ОТ N/A N/A (8) 2023 Changes/Additions Total: 1,286

^{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, IA3.1, IA3.2, IB.3.1 and IB.3.2.

^{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 June each year will be acounted for in reserve margin calculations in the following year. MW Difference in Changes/Additions

^{3/} Solar MW values reflect firm capacity only, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.

 $^{4/ \ \ \, \}text{Battery MW values reflect firm capacity only, not name plate ratings}.$

Schedule 8 - Business as Usual Resource Plan Planned And Prospective Generating Facility Additions And Changes $^{(1)}$: FPL

	Plant Name	No.	Location	Туре	Pri.	Alt.	Pri.	Alt.	Mo./Yr.	Mo./Yr.	Mo./Yr.	KW	MW	MW	Status
ADDIT	IONS/ CHANGES														
				FPL											
2024															
	Sanford Upgrade	5	Volusia County	CC	NG				-	4th Q 2023	Unknown	1,265,732	-	17	OP
	Terrill Creek Solar 3/	1	Clay County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	38	Р
	Silver Palm Solar 3/	1	Palm Beach County	PV		r Sola			-	1st Q 2024	Unknown	74,500	3	27	Р
	lbis Solar 3/	1	Brevard County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	28	Р
	Woodyard Solar 3/	1	Hendry County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	3	25	Р
	Beautyberry Solar 3/	1	Hendry County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	26	P
	Turnpike Solar 3/	1	Indian River County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	28	P
	Monarch Solar 3/	1	Martin County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	3	26	Р
	Caloosahatchee Solar 3/	1	Hendry County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	26	P
	White Tail Solar 3/ Prairie Creek Solar 3/	1	Martin County	PV		r Sola			-	1st Q 2024	Unknown	74,500	2	27	P P
			DeSoto County	PV		ır Sola				1st Q 2024	Unknown	74,500		35	P
	Pineapple Solar ^{3/} Canoe Solar ^{3/}	1	St. Lucie County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	2	27	•
	Sparkleberry Solar 3/	1	Okaloosa County	PV PV		ır Sola ır Sola			-	1st Q 2024 1st Q 2024	Unknown	74,500	0	40 33	P P
	Sambucus Solar 3/	1	Escambia County	PV					-		Unknown	74,500	2	33 34	P
	Three Creeks Solar ^{3/}	1	Manatee County Manatee County	PV PV		ır Sola ır Sola			-	1st Q 2024 1st Q 2024	Unknown	74,500 74,500	2	34 36	P
	Thomas Creek Solar 3/	1	Nassau County	PV		ır Sola ır Sola			-	1st Q 2024	Unknown	74,500	1	38	P
	Big Juniper Creek Solar 3/	1	Santa Rosa County	PV		ır Sola ır Sola			-	1st Q 2024	Unknown	74,500	0	38 41	P
	= :		*												
	Wild Quail Solar 3/	1	Walton County	PV		ır Sola			-	1st Q 2024	Unknown	74,500	0	42	Р
	Pecan Tree Solar 3/	1	Walton County	PV		r Sola			-	1st Q 2024	Unknown	74,500	0	42	Р
	Solar PV ^{3/}	1	Unknown	PV		ır Sola			-	1st Q 2024	Unknown	223,500	13	98	Р
	Martin Upgrade	8	Martin County	CC	NG		PL	TK	-	1st Q 2024	Unknown	1,301,382	-	21	OP
	Sanford Upgrade	4	Volusia County	CC	NG			No	-	1st Q 2024	Unknown	1,265,732	-	17	OP
	Daniel Retirement	1	Jackson County, MS	FS	С	No		No	-	Sep-77	1st Q 2024	274,125	(251)	(251)	P
	Daniel Retirement	2	Jackson County, MS	FS	С	No				Jun-81	1st Q 2024	274,125	(251)	(251)	Р
	Okeechobee Energy Center Upgrade	1	Okeechobee County	CC	NG		PL	TK	Jun-17	2nd Q 2024	Unknown	1,886,150	22	15	OP
	Fort Myers Upgrade	2	Lee County	CC	NG			No	-	3rd Q 2024	Unknown	1,836,798	-	18	OP
	Turkey Point Upgrade Solar Degradation 3/	5 N/A	Miami Dade County N/A	CC N/A	NG N/A		PL N/A		•	3rd Q 2024 N/A	Unknown N/A	1,301,382 N/A	-	67 (9)	OP OT
	Solai Degladation	IN/A	IN/A	IN/A	IN/P	IN/A	IN/A	IN/A	-		Changes/Add	-	(435)	358	_ 01
										2024 (nanges/Add	itions rotal:	(435)	338	
2025															
2025	Solar PV ^{3/}	1	Unknown	PV	Solo	ır Sola	r NI/A	NI/A		1st Q 2025	Unknown	1,490,000	88	542	Р
	Sanford Upgrade	5	Volusia County	CC	NG			N/A No	-	1st Q 2025	Unknown	1,490,000	88	9	OP.
1	Martin Upgrade	5 8	Martin County	CC	NG		PL		-	2nd Q 2025	Unknown	1,301,382	_	9 66	OP
	Okeechobee Energy Center Upgrade	1	Okeechobee County	CC	NG		PL	TK	Jun-17	2nd Q 2025		1,886,150	43	29	OP
1	Pea Ridge Retirement	1	Santa Rosa	GT	NG			NA	Juli-17	May-98	2nd Q 2025	4,750	43	(4)	P
	•											,			
1	Pea Ridge Retirement	2	Santa Rosa	GT	NG		NA		-	May-98	2nd Q 2025	4,750	-	(4)	P
	Pea Ridge Retirement	3	Santa Rosa	GT	NG		NA		-	May-98	2nd Q 2025	4,750	-	(4)	Р
	Solar Degradation 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(11)	ОТ
										2025 C	Changes/Add	itions Total:	43	623	

^{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.A.3.1, I.A.3.2, I.B.3.1 and I.B.3.2.

^{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 June 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, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.

^{4/} Battery MW values reflect firm capacity only, not nameplate ratings.

Plant Name			(2)	(3)	(4)	(5)	(5)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Plant Name								Fu	ıel					Fi	irm	
Plant Name No. Location Type Pri. Alt. Pri. Alt. Mo./Yr. Mo./Yr. Mo./Yr. Mo. MW MW Status						Fue				Const.	Comm.	Expected	Gen. Max.			
Pea Ridge Retirement			Unit		Unit					Start	In-Service					
Pea Ridge Retirement			No.	Location	Туре	Pri.	Alt.	Pri.	Alt.	Mo./Yr.	Mo./Yr.	Mo./Yr.	KW	MW	MW	Status
Pea Ridge Retirement	ADDITIO	ONS/ CHANGES														
Pea Ridge Retirement																
Pea Ridge Retirement	0000						PL									
Pea Ridge Retirement	2026	Pag Pidge Petirement	1	Santa Posa	СТ	NG	DI	NΙΔ	NΙΔ		May-08	2nd () 2025	4.750	(5)	_	D
Pea Ridge Retirement 3		-												٠,,		
Fort Myers Upgrade 2 Lee County CC NS No PL No 3rd Q 2025 Unknown 1,836,798 - 4 OP Solar PV Solar PV Solar Solar N/A N		· ·									•			. ,		
Solar PV Solar Solar NA N/A		-	-										,			
Solar Degradation Sola								. –					, ,			
2027 Solar PV Solar Solar N/A N/														-		
Solar PV Solar PV Solar Solar N/A		Solar Degradation	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	IN/A	-			-	20		. 01
Solar PV Solar Degradation Solar PV Solar Solar N/A N/A N/A											2020	changes/Auc	illions rotal.	20	109	
Solar Degradation Solar Degradation Solar Degradation Solar Degradation Solar Degradation Solar PV Solar Solar N/A N	2027															
2028 Solar PV Solar Solar N/A		Solar PV3/	1	Unknown	PV	Solar	Solar	N/A	N/A	-	1st Q 2027	Unknown	596,000	35	156	Р
Solar PV Solar Solar N/A		Solar Degradation 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(13)	OT
Solar PV3											2027	Changes/Add	litions Total:	35	143	'
Solar PV3												.				-
Solar Degradation N/A	2028															
2029 Battery Storage 1		Solar PV ^{3/}	1	Unknown	PV	Solar	Solar	N/A	N/A	-	1st Q 2028	Unknown	745,000	44	195	Р
Battery Storage 1		Solar Degradation 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(14)	OT
Battery Storage 1											2028	Changes/Add	litions Total:	44	181	
Battery Storage 1																
Solar PV Solar Solar N/A N/A N/A Solar Solar N/A	2029															
Schere Retirement 3 Monroe County, GA FS C - RR - Jan-87 1st Q 2029 222,750 (215) (215) P		Battery Storage 4/	1	Unknown	BS	N/A	N/A	N/A	N/A	-	1st Q 2029	Unknown	500,000	500	500	Р
Solar Degradation Solar Degradation Solar Degradation Solar Degradation Solar Degradation Solar Degradation Solar PV Solar Sola		Solar PV3/	1	Unknown	PV	Solar	Solar	N/A	N/A	-	1st Q 2029	Unknown	894,000	53	190	Р
2030 Perdido Retirement 1 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement 2 Escambia County IC LFG - PL - Oct-10 4th Q 2029 1,600 (2) (2) P P Perdido Retirement PV Solar PV Solar Degradation N/A		Scherer Retirement	3	Monroe County, GA	FS	С	-	RR	-	-	Jan-87	1st Q 2029	222,750	(215)	(215)	Р
Perdido Retirement 1 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P		Solar Degradation 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	(14)	OT
Perdido Retirement											2029	Changes/Add	litions Total:	338	461	
Perdido Retirement																
Perdido Retirement 2 Escambia County IC LFG - PL - - Oct-10 4th Q 2029 1,600 (2) (2) P	<u>2030</u>															
Battery Storage 1				•	IC		-	. –	-	-						
Solar PV Solar Degradation Solar N/A N			_					. –		-			1			
Solar Degradation ^{3'} N/A		• •		Unknown						-						
2030 Changes/Additions Total: 750 568										-						
2031 Battery Storage [√] 1 Unknown BS N/A N/A N/A N/A N/A N/A - 1st Q 2031 Unknown 600,000 600 387 P P Solar PV [√] 1 Unknown PV Solar Solar N/A N/A N/A N/A - 1st Q 2031 Unknown 894,000 53 58 P Solar Degradation [√] N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A		Solar Degradation ³	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-			-			OT
Battery Storage [√] 1 Unknown BS N/A N/A N/A - 1st Q 2031 Unknown 600,000 600 387 P Solar PV ³ 1 Unknown PV Solar N/A N/A N/A - 1st Q 2031 Unknown 894,000 53 58 P Solar Degradation ^{3/2} N/A N											2030	Changes/Add	litions Total:	750	568	
Battery Storage [√] 1 Unknown BS N/A N/A N/A - 1st Q 2031 Unknown 600,000 600 387 P Solar PV ³ 1 Unknown PV Solar N/A N/A N/A - 1st Q 2031 Unknown 894,000 53 58 P Solar Degradation ^{3/2} N/A N																
Solar PV 3 1 Unknown PV Solar Solar N/A N/A - 1st Q 2031 Unknown 894,000 53 58 P Solar Degradation 3 N/A	2031	Pattony Storago 4/	1	Unknown	DC.	NI/A	NI/A	NI/A	NI/A		10+0.2024	Unknows	600.000	600	207	ь
Solar Degradation ^{3'} N/A																
										-						
2031 Changes/Additions Total: 653 436		Solar Degradation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-			-			OI
	L										2031	Changes/Add	litions Total:	653	436	

^{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.A.3.1, I.A.3.2, I.B.3.1 and I.B.3.2.

^{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 June 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 MW values reflect firm capacity only, not nameplate ratings and FPL currently assumes 0.3% degradation annually for PV output.

^{4/} Battery MW values reflect firm capacity only, not nameplate ratings.

(1) Plant Name and Unit Number: Dania Beach Clean Energy Center Unit 7 (Broward County)*

(2) Capacity

a. Summerb. Winter1,258 MW1,261 MW

(3) Technology Type: Combined Cycle

(4) Anticipated Construction Timing

a. Field construction start-date: 2020b. Commercial In-service date: 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: 134 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): 6,119 Btu/kWh on Gas

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): 7,592 Btu/kWh on Gas

Peak Firing and Wet Compression 75F,100%

(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

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

escalation, and AFUDC.

* This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

^{* \$/}kW values are based on Summer capacity.

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

(1) Plant Name and Unit Number: Everglades Solar Energy Center (Miami-Dade County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 26 MW c. Winter Firm (AC) 3 MW

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

(4) Anticipated Construction Timing 2/

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 388 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 24.8% (First Full Year Operation)

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):
 35 years

 Total Installed Cost (2023 \$/kW):
 1,469

 Direct Construction Cost (\$/kW):
 1,426

 AFUDC Amount (2023 \$/kW):
 43

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.08 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.00 K Factor: 0.87

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Pink Trail Solar Energy Center (St. Lucie County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 3 MW

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

(4) Anticipated Construction Timing 2/

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(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: 438 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable
Not applicable

Resulting Capacity Factor (%): 22.5% (First Full Year Operation)

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):
 35 years

 Total Installed Cost (2023 \$/kW):
 1,259

 Direct Construction Cost (\$/kW):
 1,221

 AFUDC Amount (2023 \$/kW):
 38

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.08 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.00 K Factor: 0.85

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Bluefield Preserve Solar Energy Center (St. Lucie County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 22 MW c. Winter Firm (AC) 2 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

(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: 440 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: --

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 22.6% (First Full Year Operation)

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):35 yearsTotal Installed Cost (2023 \$/kW):1,113Direct Construction Cost (\$/kW):1,079AFUDC Amount (2023 \$/kW):35

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.08 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.00 K Factor: 0.83

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Cavendish Solar Energy Center (Okeechobee County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW 31 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 4 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 2023 b. Commercial In-service date:

(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: 930 Acres

(9) Construction Status: (Planned Unit)

(10) Certification Status:

(11) Status with Federal Agencies:

(12) Projected Unit Performance Data:

Not applicable Planned Outage Factor (POF): Not applicable Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 25.5% (First Full Year Operation) Not applicable

Average Net Operating Heat Rate (ANOHR):

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 35 years Total Installed Cost (2023 \$/kW): 1,144 Direct Construction Cost (\$/kW): 1,107 AFUDC Amount (2023 \$/kW): 36

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.46 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.000.80 K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Anhinga Solar Energy Center (Clay County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 74.5 MW
 9 MW
 c. Winter Firm (AC)
 2 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 494 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable
Not applicable

Resulting Capacity Factor (%): 21.6% (First Full Year Operation)

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): 35 years
Total Installed Cost (2023 \$/kW): 1,207
Direct Construction Cost (\$/kW): 1,169
AFUDC Amount (2023 \$/kW): 38

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.46 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.00 K Factor: 0.82

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Blackwater River Solar Energy Center (Santa Rosa County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 341 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 22.2% (First Full Year Operation)

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):
 35 years

 Total Installed Cost (2023 \$/kW):
 1,173

 Direct Construction Cost (\$/kW):
 1,135

 AFUDC Amount (2023 \$/kW):
 38

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.08 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) 0.00 K Factor: 0.81

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Chipola River Solar Energy Center (Calhoun County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 701 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.3% (First Full Year Operation)

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): 35 years
Total Installed Cost (2023 \$/kW): 1,265
Direct Construction Cost (\$/kW): 1,226
AFUDC Amount (2023 \$/kW): 39

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.46 (First Full Year Operation)

Variable O&M (\$/MWH) (2023 \$) 0.00 K Factor: 0.83

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Flowers Creek Solar Energy Center (Calhoun County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(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: 868 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 22.9% (First Full Year Operation)

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): 35 years
Total Installed Cost (2023 \$/kW): 1,253
Direct Construction Cost (\$/kW): 1,218
AFUDC Amount (2023 \$/kW): 35

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.46 (First Full Year Operation)

Variable O&M (\$/MWH) (2023 \$) 0.00 K Factor: 0.83

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: First City Solar Energy Center (Escambia County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC)^{1/} 28.7 MW c. Winter Firm (AC) MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

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: 458 Acres

(9) Construction Status: (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 (%): 21.9% (First Full Year Operation)

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): 35 years Total Installed Cost (2023 \$/kW): 1,183 Direct Construction Cost (\$/kW): 1,145 AFUDC Amount (2023 \$/kW): 38

Escalation (\$/kW): Accounted for in Direct Construction Cost 7.08 (First Full Year Operation)

Fixed O&M (\$/kW-Yr.): (2023 \$)

Variable O&M (\$/MWH): (2023 \$)0.00 0.82 K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Apalachee Solar Energy Center (Jackson County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 511 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Not applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 25.5% (First Full Year Operation)

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): 35 years
Total Installed Cost (2023 \$/kW): 1,225
Direct Construction Cost (\$/kW): 1,187
AFUDC Amount (2023 \$/kW): 39

Escalation (\$/kW): Accounted for in Direct Construction Cost Fixed O&M (\$/kW-Yr.): (2023 \$) 7.46 (First Full Year Operation)

Variable O&M (\$/MWH) (2023 \$) 0.00 K Factor: 0.82

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Wild Azalea Solar Energy Center (Gadsden County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 40 MW c. Winter Firm (AC) 0 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 564 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 27.3% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Chautauqua Solar Energy Center (Walton County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 866 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.2% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Shirer Branch Solar Energy Center (Calhoun County)

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 o. MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

(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: 583 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

Average Net Incremental Heat Rate (ANIHR):

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.2% (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Saw Palmetto Solar Energy Center (Bay County)

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 39 MW c. Winter Firm (AC) 0 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

(5) Fuel

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 681 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.3% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

 Variable O&M (\$/MWH):
 (2023 \$)
 TBD

 K Factor:
 TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Cypress Pond Solar Energy Center (Washington County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 38 MW c. Winter Firm (AC) 0 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022 b. Commercial In-service date: 2023

(5) Fue

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: 484 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable

Not applicable

Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 26.8% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Etonia Creek Solar Energy Center (Putnam County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 34 MW c. Winter Firm (AC) 2 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2022b. Commercial In-service date: 2023

(5) Fuel

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 499 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 26.4% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2023 \$) TBD

K Factor: TBD

 $\textbf{Note:} \ \ \mathsf{Total} \ \mathsf{installed} \ \mathsf{cost} \ \mathsf{includes} \ \mathsf{transmission} \ \mathsf{interconnection} \ \mathsf{and} \ \mathsf{AFUDC}.$

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Terrill Creek Solar Energy Center (Clay County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 d. MW
 e. Winter Firm (AC)
 d. MW
 e. Winter Firm (AC)

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(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: 632 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.9% (First Full Year Operation)

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): 35 years
Total Installed Cost (2024 \$/kW): TBD

Direct Construction Cost (\$/kW):

AFUDC Amount (2024 \$/kW):

Escalation (\$/kW):

TBD

Fixed O&M (\$/kW-Yr.): (2024 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 3 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(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: 640 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 25.3% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

 Variable O&M (\$/MWH):
 (2024 \$)
 TBD

 K Factor:
 TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 d. MW
 d. Winter Firm (AC)
 d. MW
 d. Winter Firm (AC)

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) **Fuel**

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 630 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 25.5% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Woodyard Solar Energy Center (Hendry County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 25 MW c. Winter Firm (AC) 3 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(5) Fuel

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 670 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 25.7% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Beautyberry Solar Energy Center (Hendry County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 26 MW c. Winter Firm (AC) 2 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(5) Fuel

a. Primary Fuelb. Alternate FuelSolarNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 888 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Kot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 25.1% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Turnpike Solar Energy Center (Indian River County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 28 MW c. Winter Firm (AC) 2 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(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: 571 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 (%): 25.2% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 3 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2024

(5) Fuel

a. Primary Fuelb. Alternate FuelNot applicable

(6) Air Pollution and Control Strategy: Not applicable

(7) Cooling Method: Not applicable

(8) Total Site Area: 551 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

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

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 25.4% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

Plant Name and Unit Number: Caloosahatchee Solar Energy Center (Hendry County)* (1)

(2) Capacity

> a. Nameplate (AC) 74.5 MW 26 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 2 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) Fuel

> a. Primary Fuel Solar

b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 454 Acres

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

Certification Status: (10)

(11)Status with Federal Agencies:

Projected Unit Performance Data: (12)

Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 25.8% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

Book Life (Years): 35 years

Total Installed Cost (2024 \$/kW): **TBD** TBD Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): TBD Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)TBD TBD K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

> a. Nameplate (AC) 74.5 MW 27 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 2 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) Fuel

> a. Primary Fuel Solar

b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 601 Acres

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

Certification Status: (10)

(11)Status with Federal Agencies:

Projected Unit Performance Data: (12)

Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 25.3% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

Book Life (Years): 35 years

Total Installed Cost (2024 \$/kW): **TBD** TBD Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): TBD Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)TBD TBD K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Prairie Creek Solar Energy Center (DeSoto County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm (AC) $^{1/}$ 35 MW c. Winter Firm (AC) 3 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(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: 677 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

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

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 29.6% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

Plant Name and Unit Number: Pineapple Solar Energy Center (St. Lucie County)* (1)

(2) Capacity

> a. Nameplate (AC) 74.5 MW 27 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 2 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) Fuel

> a. Primary Fuel Solar b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 428 Acres

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

Certification Status: (10)

(11) Status with Federal Agencies:

Projected Unit Performance Data: (12)

Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 25.3% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR):

Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

Book Life (Years): 35 years

TBD Total Installed Cost (2024 \$/kW): **TBD** Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): **TBD** Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)**TBD** K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Canoe Solar Energy Center (Okaloosa County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW
b. Summer Firm (AC) 40 MW
c. Winter Firm (AC) 0 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(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: 945 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

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

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.5% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

Plant Name and Unit Number: Sparkleberry Solar Energy Center (Escambia County)* (1)

(2) Capacity

> a. Nameplate (AC) 74.5 MW 33 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 0 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 2024 b. Commercial In-service date:

(5) Fuel

> a. Primary Fuel Solar

b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 533 Acres

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

Certification Status: (10)

(11)Status with Federal Agencies:

Projected Unit Performance Data: (12)

Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 24.5% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

> Book Life (Years): 35 years

Total Installed Cost (2024 \$/kW): **TBD** TBD Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): TBD Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)TBD TBD K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

Plant Name and Unit Number: Sambucus Solar Energy Center (Manatee County)* (1)

(2) Capacity

> a. Nameplate (AC) 74.5 MW 34 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 2 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) Fuel

> a. Primary Fuel Solar

b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 464 Acres

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

Certification Status: (10)

(11)Status with Federal Agencies:

Projected Unit Performance Data: (12)

> Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 29.2% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

Book Life (Years): 35 years

Total Installed Cost (2024 \$/kW): **TBD** TBD Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): TBD Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)TBD TBD K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

Plant Name and Unit Number: Three Creeks Solar Energy Center (Manatee County)* (1)

(2) Capacity

> a. Nameplate (AC) 74.5 MW 36 MW b. Summer Firm (AC)^{1/} c. Winter Firm (AC) 2 MW

Technology Type: Photovoltaic (PV) (3)

(4) **Anticipated Construction Timing**

> a. Field construction start-date: 2023 b. Commercial In-service date: 2024

(5) Fuel

> a. Primary Fuel Solar

b. Alternate Fuel Not applicable

Air Pollution and Control Strategy: Not applicable (6)

(7) Cooling Method: Not applicable

(8) **Total Site Area:** 620 Acres

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

Certification Status: (10)

(11)Status with Federal Agencies:

Projected Unit Performance Data: (12)

Not applicable Planned Outage Factor (POF): Forced Outage Factor (FOF): Not applicable Equivalent Availability Factor (EAF): Not applicable

Resulting Capacity Factor (%): 29.4% (First Full Year Operation)

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

Projected Unit Financial Data * (13)

Book Life (Years): 35 years

Total Installed Cost (2024 \$/kW): **TBD** TBD Direct Construction Cost (\$/kW): AFUDC Amount (2024 \$/kW): TBD Escalation (\$/kW): TBD

TBD Fixed O&M (\$/kW-Yr.): (2024 \$)(First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$)TBD TBD K Factor:

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Thomas Creek Solar Energy Center (Nassau County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 d. MW
 d. MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(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: 1,804 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): 27.5% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

 Variable O&M (\$/MWH):
 (2024 \$)
 TBD

 K Factor:
 TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Big Juniper Creek Solar Energy Center (Santa Rosa County)*

(2) Capacity

a. Nameplate (AC) 74.5 MW b. Summer Firm $(AC)^{1/}$ 41 MW c. Winter Firm (AC) 0 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2023b. Commercial In-service date: 2024

(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: 527 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

(12) Projected Unit Performance Data:

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.5% (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

 $\textbf{Note:} \ \ \textbf{Total installed cost includes transmission interconnection and AFUDC}.$

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Wild Quail Solar Energy Center (Walton County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 74.5 MW
 42 MW
 0 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2024

(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: 750 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

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

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 27.7% (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Pecan Tree Solar Energy Center (Walton County)*

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 d. MW
 d. MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2024

(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: 762 Acres

(9) Construction Status: P (Planned Unit)

(10) Certification Status: ---

(11) Status with Federal Agencies: ---

Average Net Incremental Heat Rate (ANIHR):

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

Planned Outage Factor (POF):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): 28.1% (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR): Not applicable Base Operation 75F,100%

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2024 \$) TBD K Factor: TBD

 $\textbf{Note:} \ \ \textbf{Total installed cost includes transmission interconnection and AFUDC}.$

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 1,490 MW
 542 MW
 88 MW

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

(4) Anticipated Construction Timing

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

Forced Outage Factor (FOF):

Forced Outage Factor (FOF):

Not applicable

Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2025 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 35 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2026

(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: 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):

Forced Outage Factor (FOF):

Forced Outage Factor (FOF):

Not applicable

Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 years
Total Installed Cost (2026 \$/kW): TBD

Direct Construction Cost (\$/kW):

AFUDC Amount (2026 \$/kW):

TBD
Escalation (\$/kW):

TBD

Fixed O&M (\$/kW-Yr.): (2026 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2026 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/2}
 c. Winter Firm (AC)
 35 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2027

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2027 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 300 MW
 d. Winter Firm (AC)
 300 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2026 b. Commercial In-service date: 2027

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 20 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2027 \$) TBD K Factor: TBD

Note: Total installed cost includes transmission interconnection and AFUDC.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

This resource addition is only in the Recommended Plan

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 44 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2027b. Commercial In-service date: 2028

(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: 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):

Forced Outage Factor (FOF):

Forced Outage Factor (FOF):

Not applicable

Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2028 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 400 MW b. Summer Firm (AC) 360 MW c. Winter Firm (AC) 400 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2027 b. Commercial In-service date: 2028

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR):

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 20 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 (First Full Year Operation)

Variable O&M (\$/MWH): (2028 \$) TBD K Factor: TBD

Note: Total installed cost includes transmission interconnection and AFUDC.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

This resource addition is only in the Recommended Plan

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 53 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2029

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 years

Total Installed Cost (2029 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2029 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2029 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2029 \$) TBD K Factor: TBD

 $\textbf{Note:} \ \ \textbf{Total installed cost includes transmission interconnection and AFUDC}.$

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 900 MW
b. Summer Firm (AC) 637 MW
c. Winter Firm (AC) 900 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2029

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR):

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 20 years

Total Installed Cost (2029 \$/kW): TBD

Direct Construction Cost (\$/kW): TBD

AFUDC Amount (2029 \$/kW):

Escalation (\$/kW):

TBD

Fixed O&M (\$/kW-Yr.): (2029 \$) TBD (First Full Year Operation)

 Variable O&M (\$/MWH):
 (2029 \$)
 TBD

 K Factor:
 TBD

Note: Total installed cost includes transmission interconnection and AFUDC.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

This resource addition is only in the Recommended Plan

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

Schedule 9 - Business as Usual Plan Status Report and Specifications of Proposed Generating Facilities

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 500 MW
b. Summer Firm (AC) 500 MW
c. Winter Firm (AC) 500 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2028b. Commercial In-service date: 2029

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 20 years Total Installed Cost (2029 \$/kW): TBD

Direct Construction Cost (\$/kW):

AFUDC Amount (2029 \$/kW):

TBD
Escalation (\$/kW):

TBD

Fixed O&M (\$/kW-Yr.): (2029 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2029 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

^{2/} The "A" following the page number indicates that this is a resouce addition that differs from the Recommended Resource Plan, and only shows up as a part of the Business as Usual Resource Plan.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 c. Winter Firm (AC)
 384 MW
 58 MW
 53 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2029

(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: 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):

Forced Outage Factor (FOF):

Forced Outage Factor (FOF):

Not applicable

Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 years
Total Installed Cost (2030 \$/kW): TBD

 Total Installed Cost (2030 \$/kW):
 TBD

 Direct Construction Cost (\$/kW):
 TBD

 AFUDC Amount (2030 \$/kW):
 TBD

 Escalation (\$/kW):
 TBD

Fixed O&M (\$/kW-Yr.): (2030 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2030 \$) TBD K Factor: TBD

 $\textbf{Note:} \ \ \textbf{Total installed cost includes transmission interconnection and AFUDC}.$

^{* \$/}kW values are based on nameplate capacity.

^{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.

^{*} This resource addition is in both the Recommended Resource Plan as well as the Business as Usual Resource Plan for the given year.

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 600 MW
b. Summer Firm (AC) 372 MW
c. Winter Firm (AC) 600 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2029 b. Commercial In-service date: 2030

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR):

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 20 years
Total Installed Cost (2030 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2030 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2030 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2030 \$) TBD K Factor: TBD

Note: Total installed cost includes transmission interconnection and AFUDC.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

This resource addition is only in the Recommended Plan

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

Schedule 9 - Business as Usual Plan Status Report and Specifications of Proposed Generating Facilities

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 700 MW b. Summer Firm (AC) 534 MW c. Winter Firm (AC) 700 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2029 b. Commercial In-service date: 2030

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 20 years Total Installed Cost (2030 \$/kW): TBD

Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2030 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2030 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2030 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning w ork.

^{2/} The "A" following the page number indicates that this is a resouce addition that differs from the Recommended Resource Plan, and only shows up as a part of the Busniess as Usual Resource Plan.

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 63 MW
 c. Winter Firm (AC)
 57 MW

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

(4) Anticipated Construction Timing

a. Field construction start-date: 2030b. Commercial In-service date: 2031

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 years

Total Installed Cost (2031 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2031 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2031 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2031 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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. This resource addition is only in the Recommended Plan

Schedule 9 - Business as Usual Plan Status Report and Specifications of Proposed Generating Facilities

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

(2) Capacity

a. Nameplate (AC)
 b. Summer Firm (AC)^{1/}
 58 MW
 c. Winter Firm (AC)
 53 MW

(3) Technology Type: Photovoltaic (PV)

(4) Anticipated Construction Timing

a. Field construction start-date: 2030b. Commercial In-service date: 2031

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 35 years

Total Installed Cost (2031 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2031 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2031 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2031 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{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 "A" following the page number indicates that this is a resouce addition that differs from the Recommended Resource Plan, and only shows up as a part of the Busniess as Usual Resource Plan.

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 1,000 MW
b. Summer Firm (AC) 500 MW
c. Winter Firm (AC) 500 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date:b. Commercial In-service date:2030

(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: 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):

Forced Outage Factor (FOF):

Equivalent Availability Factor (EAF):

Not applicable

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

Not applicable

Average Net Operating Heat Rate (ANOHR):

Base Operation 75F,100%

Average Net Incremental Heat Rate (ANIHR): Not applicable

Peak Operation 75F,100%

(13) Projected Unit Financial Data *

Book Life (Years): 20 years
Total Installed Cost (2031 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2031 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2031 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2031 \$) TBD K Factor: TBD

Note: Total installed cost includes transmission interconnection and AFUDC.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

This resource addition is only in the Recommended Plan

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

Schedule 9 - Business as Usual Plan Status Report and Specifications of Proposed Generating Facilities

(1) Plant Name and Unit Number: Unsited Battery Storage

(2) Capacity

a. Nameplate (AC) 600 MW b. Summer Firm (AC) 387 MW c. Winter Firm (AC) 600 MW

(3) Technology Type: Battery

(4) Anticipated Construction Timing

a. Field construction start-date: 2030 b. Commercial In-service date: 2031

(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: 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):

Forced Outage Factor (FOF):

Rot applicable
Equivalent Availability Factor (EAF):

Not applicable

Resulting Capacity Factor (%): TBD (First Full Year Operation)

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): 20 years

Total Installed Cost (2031 \$/kW): TBD
Direct Construction Cost (\$/kW): TBD
AFUDC Amount (2031 \$/kW): TBD
Escalation (\$/kW): TBD

Fixed O&M (\$/kW-Yr.): (2031 \$) TBD (First Full Year Operation)

Variable O&M (\$/MWH): (2031 \$) TBD K Factor: TBD

^{* \$/}kW values are based on nameplate capacity.

^{1/} The value shown represents FPL's current projection of the firm capacity of this battery storage after the net load of the system and other battery storage being discharged. Because battery storage "flattens" the peak period, the firm capacity value of storage decreases as more battery storage is added to the system.

FPL will continue to analyze the projected impacts of increasing amounts of battery storage in its on-going resource planning work.

^{2/} The "A" following the page number indicates that this is a resouce addition that differs from the Recommended Resource Plan, and only shows up as a part of the Busniess as Usual Resource Plan.

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Dania Beach Clean Energy Center Unit 7

Dania Beach Clean Energy Center Unit 7 does not require any new transmission lines.

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Everglades Solar Energy Center (Miami-Dade County)

The Everglades Solar Energy Center will require bifurcating the Avocado-Mango section of the FPL Krome-Farmlife 138 kV transmission line approximately 1.3 miles to connect a new Maco substation and the solar PV inverter array.

(1) Point of Origin and Termination: Avocado-Mango section of the FPL Krome-Farmlife 138 kV line to the new Maco Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 1.3 miles, double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Maco Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Pink Trail Solar Energy Center (St. Lucie County)

Pink Trail Solar Energy Center will require extending a transmission line from the Heru Substation approximately 0.3 miles to connect the new TBD Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Heru Substation to new TBD Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 0.3 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Bluefield Preserve Solar Energy Center (St. Lucie County)

The Bluefield Preserve Solar Energy Center will require bifurcating the existing FPL Sherman-Heru 230 kV transmission line approximately 0 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Sherman-Heru 230 kV line to the new TBD Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Cavendish Solar Energy Center (Okeechobee County)

The Cavendish Solar Energy Center will connect to the Okeechobee Next Generation Clean Energy Center project and does not require any new transmission lines.

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Anhinga Solar Energy Center (Clay County)

The Anhinga Solar Energy Center will connect to the Leno substation at the new Magnolia Springs Solar Energy Center and does not require any new transmission lines.

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Blackwater River Solar Energy Center (Santa Rosa County)

The Blackwater River Solar Energy Center will require bifurcating the existing Gulf Shoal River-Alligator Swamp 230 kV transmission line approximately 1.2 miles to connect a new Rooster substation and the solar PV inverter array.

(1) Point of Origin and Termination: Shoal River-Alligator Swamp 230 kV line to new Rooster Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: Approximately 1.2 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Rooster Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Chipola River Solar Energy Center (Calhoun County)

The Chipola River Solar Energy Center will require bifurcating the existing Gulf Smith-Sinai 230 kV transmission line approximately 0 miles to connect a new Melvin substation and the solar PV inverter array.

(1) Point of Origin and Termination: Smith-Sinai 230 kV line to new Melvin Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Melvin Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Flowers Creek Solar Energy Center (Calhoun County)

The Flowers Creek Solar Energy Center will require bifurcating the existing Gulf Callaway-Sinai 115 kV transmission line approximately 0 miles to connect a new Grady substation and the solar PV inverter array.

(1) Point of Origin and Termination: Callaway-Sinai 115 kV line to new Grady Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Grady Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

First City Solar Energy Center (Escambia County)

The First City Solar Energy Center will require bifurcating the existing Gulf North Brewton-Alligator Swamp 230 kV transmission line approximately 0.3 miles to connect a new Honeybee substation and the solar PV inverter array.

(1) Point of Origin and Termination: North Brewton-Alligator Swamp 230 kV line to new Honeybee Substation

(2) Number of Lines:

(3) Right-of-way FPL- Owned

(4) Line Length: Approximately 0.3 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Honeybee substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Apalachee Solar Energy Center (Jackson County)

The Apalachee Solar Energy Center will require bifurcating the existing Gulf Marianna – West Grand Ridge 115 kV transmission line approximately 0 miles to connect a new Dellwood substation and the solar PV inverter array.

(1) Point of Origin and Termination: Marianna – West Grand Ridge 115 kV line to new Dellwood Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Dellwood Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Wild Azalea Solar Energy Center (Gadsden County)

The Wild Azalea Solar Energy Center will require bifurcating the existing Gulf Sinai - South Brainbridge 230 kV transmission line approximately 5 miles to connect a new Piedmont substation and the solar PV inverter array.

(1) Point of Origin and Termination: Sinai – South Brainridge 230 kV line to new Piedmont Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: Approximately 5 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Piedmont Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Chautauqua Solar Energy Center (Walton County)

The Chautauqua Solar Energy Center will require bifurcating the existing Gulf Shoal River - Samson 230 kV transmission line approximately 0 miles to connect a new Liddie substation and the solar PV inverter array.

(1) Point of Origin and Termination: Shoal River – Sampson 230 kV line to new Liddie Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Liddie Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Shirer Branch Solar Energy Center (Calhoun County)

The Shirer Branch Solar Energy Center will require bifurcating the existing Gulf Callaway - Sinai 115 kV transmission line approximately 1.5 miles to connect a new Mayo substation and the solar PV inverter array.

(1) Point of Origin and Termination: Callaway – Sinai 115 kV line to new Mayo Substation

(2) Number of Lines:

(3) Right-of-way FPL- Owned

(4) Line Length: Approximately 1.5 miles double circuit

(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Mayo Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Saw Palmetto Solar Energy Center (Bay County)

The Saw Palmetto Solar Energy Center will require bifurcating the existing Gulf Mariana - Bay County 115 kV transmission line approximately 0 miles to connect a new Youngstown substation and the solar PV inverter array.

(1) Point of Origin and Termination: Mariana - Bay County 115 kV line to new Youngstown Substation

(2) Number of Lines: 1

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Youngstown Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Cypress Pond Solar Energy Center (Washington County)

The Cypress Pond Solar Energy Center will require bifurcating the existing Gulf Shoal River - Smith 230 kV transmission line approximately 0.5 mile to connect a new Reeves substation and the solar PV inverter array.

(1) Point of Origin and Termination: Shoal River - Smith 230 kV line to new Reeves Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: Approximately 0.5 mile double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Reeves Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Etonia Creek Solar Energy Center (Putnam County)

The Etonia Creek Solar Energy Center will require bifurcating the existing FPL Quasar - Rice 230 kV transmission line approximately 1 miles to connect a new Baltic substation and the solar PV inverter array.

(1) Point of Origin and Termination: Quasar - Rice 230 kV line to the new Baltic Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 1 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2022

End date: 2023

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Baltic Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Terrill Creek Solar Energy Center (Clay County)

The Terryll Creek Solar Energy Center will require extending a transmission line from the Leno Substation approximately 2.6 miles to connect the new Terrill Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Leno Substation to Terrill Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 2.6 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Terrill Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Silver Palm Solar Energy Center (Palm Beach County)

The Silver Palm Solar Energy Center will require extending a transmission line from the Costa Substation approximately 0.2 miles to connect the new Louise Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Costa Substation to Louise Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 0.2 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Louise Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Ibis Solar Energy Center (Brevard County)

The Ibis Solar Energy Center will require extending a transmission line from the Hayward Substation approximately 3.0 miles to connect the new Crayfish Substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Hayward Substation to Crayfish Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 3 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Crayfish Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Woodyard Solar Energy Center (Henry County)

The Woodyard Solar Energy Center will require extending a transmission line from the Ghost Substation approximately 0.0 miles to connect the solar PV inverter array.

(1) Point of Origin and Termination: Ghost Substation to the new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 500 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Beautyberry Solar Energy Center (Henry County)

The Beautyberry Solar Energy Center will require extending a transmission line from the Ghost Substation approximately 0.0 miles to connect the solar PV inverter array.

(1) Point of Origin and Termination: Ghost Substation to the new TBD Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 500 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Turnpike Solar Energy Center (Indian River County)

The Turnpike Solar Energy Center will require extending a transmission line from the Kiran Substation approximately 0.0 miles to connect the solar PV inverter array.

(1) Point of Origin and Termination: Kiran Substation to the new TBD Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Monarch Solar Energy Center (Martin County)

The Monarch Solar Energy Center will require extending a transmission line from the Warfield Substation approximately 1.0 miles to connect a new TBD substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Warfield Substation to the new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 1 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Caloosahatchee Solar Energy Center (Henry County)

The Caloosahatchee Solar Energy Center will require bifurcating the existing FPL Alva - Corbett 230 kV transmission line approximately 3 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Alva - Corbett 230 kV transmission line to the new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 3 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

White Tail Solar Energy Center (Martin County)

The White Tail Solar Energy Center will require will require bifurcating the FPL Bridge - Indiantown 230 kV transmission line approximately 0.3 miles to connect a new Kiwi substation and connect the solar PV inverter array.

(1) Point of Origin and Termination: Bridge - Indiantown 230 kV transmission line to new Kiwi Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 0.3 miles

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Kiwi Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Prairie Creek Solar Energy Center (DeSoto County)

The Prairie Creek Solar Energy Center will require bifurcating the existing FPL Orange River - Whidden 230 kV transmission line approximately 4.5 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Orange River - Whidden 230 kV transmission line to the new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: Approximately 4.5 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Pineapple Solar Energy Center (St. Lucie County)

The Pineapple Solar Energy Center will connect to the Hennis substation and the solar PV inverter array.

(1) Point of Origin and Termination: Hennis Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: Hennis Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Canoe Solar Energy Center (Okaloosa County)

The Canoe Solar Energy Center will require bifurcating the existing Gulf Crist - South Crestview #1-115 kV transmission line approximately 0 miles to connect a new Holt substation and the solar PV inverter array.

(1) Point of Origin and Termination: Crist - South Crestview #1-115 kV transmission line to new Holt Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Holt Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Sparkleberry Solar Energy Center (Escambia County)

The Sparkleberry Solar Energy Center will require bifurcating the existing Gulf Conecuh - Barry 230 kV transmission line approximately 0.5 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Conecuh - Barry 230 kV transmission line to new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: Approximately 0.5 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Sambucus Solar Energy Center (Manatee County)

The Sambucus Solar Energy Center will connect to the Coachwhip substation and the solar PV inverter array.

(1) Point of Origin and Termination: Coachwhip Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
 (5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Coachwhip Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Three Creeks Solar Energy Center (Manatee County)

The Three Creeks Solar Energy Center will connect to the Saffold substation and the solar PV inverter array.

(1) Point of Origin and Termination: Saffold Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Saffold Substation

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Thomas Creeks Solar Energy Center (Nassau County)

The Thomas Creeks Solar Energy Center will connect to the Crawford substation and the solar PV inverter array.

(1) Point of Origin and Termination: Crawford Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: 0 miles
 (5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Crawford Substation

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Schedule 10 Status Report and Specifications of Proposed Transmission Lines

Big Juniper Creek Solar Energy Center (Santa Rosa County)

The Big Juniper Creek Solar Energy Center will require bifurcating the existing Gulf Crist - South Crestview #2-115 kV transmission line approximately 0 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Crist - South Crestview #2-115 kV transmission line to new TBD Substation

(2) Number of Lines:

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
(5) Voltage: 115 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Wild Quail Solar Energy Center (Walton County)

The Wild Quail Solar Energy Center will require bifurcating the existing Gulf Shoal River - Samson 230 kV transmission line approximately 0 miles to connect a new TBD substation and the solar PV inverter array.

(1) Point of Origin and Termination: Shoal River - Samson 230 kV transmission line to new TBD Substation

(2) Number of Lines: 1

(3) Right-of-way FPL – Owned

(4) Line Length: 0 miles
 (5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment:

(Trans. and Sub.)

Included in total installed cost on Schedule 9

(8) Substations: New Substation, Name TBD

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Schedule 10 <u>Status Report and Specifications of Proposed Transmission Lines</u>

Pecan Tree Solar Energy Center (Walton County)

The Pecan Tree Solar Energy Center will require bifurcating the existing Gulf Shoal River - Samson 230 kV transmission line approximately 2.25 miles to connect a new Caney substation and the solar PV inverter array.

(1) Point of Origin and Termination: Shoal River - Samson 230 kV transmission line to new Caney Substation

(2) Number of Lines:

(3) Right-of-way FPL - Owned

(4) Line Length: Approximately 2.25 miles double circuit

(5) Voltage: 230 kV

(6) Anticipated Construction Timing: Start date: 2023

End date: 2024

(7) Anticipated Capital Investment: Included in total installed cost on Schedule 9

(Trans. and Sub.)

(8) Substations: Caney Substation

Schedule 11.1: FPL

Existing Firm and Non-Firm Capacity and Energy by Primary Fuel Type
Actuals for the Year 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Net (MW) Capability						Fuel Mix
	Generation by Primary Fuel	Summer (MW)	Summer (%)	Winter (MW)	Winter (%)	Extreme Winter (MW)	Extreme Winter (%)	GWh ⁽²⁾	%
(1)	Coal	634	2.3%	635	2.1%	635	2.1%	2,089	1.7%
(2)	Nuclear	3,502	12.5%	3,588	11.8%	3,588	11.7%	28,342	22.6%
(3)	Residual	0	0.0%	0	0.0%	0	0.0%	75	0.1%
(4)	Distillate	108	0.4%	123	0.4%	123	0.4%	94	0.1%
(5)	Natural Gas	20,281	72.3%	22,650	74.2%	22,735	74.3%	90,903	72.6%
(6)	Solar (Firm & Non-Firm)	2,941	10.5%	2,941	9.6%	2,941	9.6%	5,746	4.6%
(7)	Battery	469	1.7%	469	1.5%	469	1.5%	-	-
(8)	FPL Existing Units Total (1):	27,935	99.6%	30,406	99.6%	30,491	99.6%	127,250	101.7%
(9)	Renewables (Purchases)- Firm	114	0.4%	114	0.4%	114	0.4%	952	0.8%
(10)	Renewables (Purchases)- Non-Firm	Not Applicable		Not Applicable		Not Applicable		388	0.3%
(11)	Renewable Total:	114	0.0	114	0.0	114	0.0	1,341	1.1%
(12)	Purchases Other / (Sales) :	0.0	0.0%	0.0	0.0%	0.0	0.0%	(3,412)	-2.7%
(13)	Total:	28,048	100.0%	30,520	100.0%	30,605	100.0%	125,179	100.0%

Note:

⁽¹⁾ FPL Existing Units Total values on row (8), columns (2), (4) and, (6), match the Total Nameplate System Generating Capacity values found on Schedule 1 for Summer, Winter and, Extreme Winter.

⁽²⁾ Net Energy for Load GWh values on row (13), column (8), matches Schedule 6.1 value for 2021.

Schedule 11.1: Gulf

Existing Firm and Non-Firm Capacity and Energy by Primary Fuel Type Actuals for the Year 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Net (MW) Capability						
	Generation by Primary Fuel	Summer (MW)	Summer (%)	Winter (MW)	Winter (%)	Extreme Winter (MW)	Extreme Winter (%)	GWh ⁽²⁾	%
(1)	Coal	717	15.9%	717	15.8%	717	15.7%	1,765	15.2%
(2)	Nuclear	0	0.0%	0	0.0%	0	0.0%	0	0.0%
(3)	Residual	0	0.0%	0	0.0%	0	0.0%	0	0.0%
(4)	Distillate	32	0.7%	40	0.9%	40	0.9%	0	0.0%
(5)	Natural Gas	2,573	57.0%	2,570	56.5%	2,579	56.6%	10,720	92.5%
(6)	Landfill Gas	3	0.1%	3	0.1%	3	0.1%	21	0.2%
(7)	Solar (Firm & Non-Firm)	224	5.0%	224	4.9%	224	4.9%	409	3.5%
(8)	Gulf Existing Units Total (1):	3,549	78.6%	3,554	78.1%	3,563	78.2%	12,915	111.4%
(9)	Renewables (Purchases)- Firm	81	1.8%	109	2.4%	109	2.4%	1,031	8.9%
(10)	Renewables (Purchases)- Non-Firm	Not Applicable		Not Applicable		Not Applicable		285	2.5%
(11)	Renewable Total:	81.0	1.8%	109.0	2.4%	109.0	2.4%	1,315.9	11.4%
(12)	Purchases Other / (Sales) :	885	19.6%	885	19.5%	885	19.4%	(2,642)	-22.8%
(13)	Total:	4,515	100.0%	4,548	100.0%	4,557	100.0%	11,589	100.0%

Note:

⁽¹⁾ Gulf Existing Units Total values on row (8), columns (2), (4) and, (6) match the Total Nameplate System Generating Capacity values found on Schedule 1 for Summer, Winter, and Extreme Winter.

⁽²⁾ Net Energy for Load GWh values on row (13), column (8), matches Schedule 6.1 value for 2021.

Schedule 11.2: FPL

Existing Non-Firm Self-Service Renewable Generation Facilities Actuals for the Year 2021 $^{\rm 1/}$

(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 ^{5/}
Customer-Owned Renewable Generation (0 kW to 10 kW)	229.49	335,171	538,859	113,612	760,418
Customer-Owned Renewable Generation (> 10 kW to 100 kW)	111.61	162,396	334,206	47,434	449,168
Customer-Owned Renewable Generation (> 100 kW - 2 MW)	39.24	97,041	325,152	11,029	411,164
Totals	380.34	594,609	1,198,217	172,075	1,620,751

^{1/} There were approximately 34,068 customers with renewable generation facilities interconnected with FPL on December 31, 2021.

^{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 when each facility was 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 2021.

^{4/} The Annual Energy Sold to FPL - Total is an actual value from FPL's metered data for 2021. These are the total MWh that were "overproduced" by the customer each month throughout 2021.

^{5/} The Projected Annual Energy Used by Customers is a projected value that equals:
(Renewable Projected Annual output + Annual Energy Purchased) minus the Annual Energy Sold to FPL - Total).

Schedule 11.2: Gulf

Existing Non-Firm Self-Service Renewable Generation Facilities Actuals for the Year 2021 $^{\rm 1/}$

(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 Gulf (MWh) 3/	Annual Energy Sold to Gulf - Total (MWh) 4/	Projected Annual Energy Used by Customers ^{5/}
Residential	102.61	150,631	97,367	54,873	193,125
Commercial/Industrial	2.93	4,297	6,185	1,212	9,270
Totals	106	154,928	103,553	56,085	202,395

^{1/} There were approximately 10,648 customers with renewable generation facilities interconnected with Gulf on December 31, 2021.

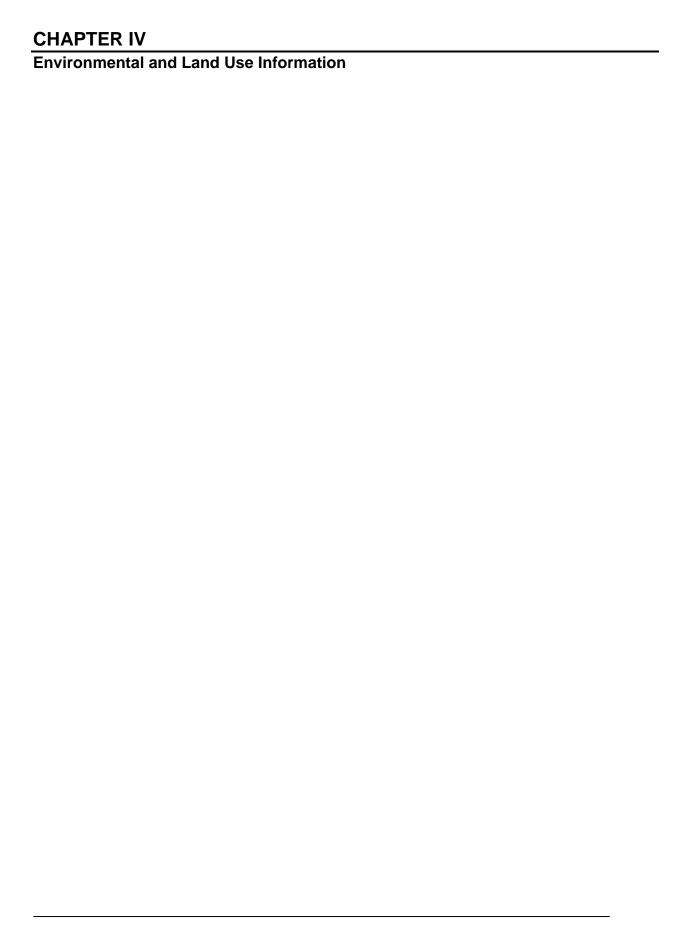
^{2/} The Projected Annual Output value is based on NREL's PV Watts calculation assuming average annual kWh's per year at 1,468 for a (1) kW system.

^{3/} The Annual Energy Purchased from Gulf is an actual value from Gulf's metered data for 2021.

^{4/} The Annual Energy Sold to Gulf - Total is an actual value from Gulf's metered data for 2021. These are the total MWh that were "overproduced" by the customer each month throughout 2021.

^{5/} The Projected Annual Energy Used by Customers is a projected value that equals:
(Renewable Projected Annual output + Annual Energy Purchased) minus the Annual Energy Sold to Gulf - Total).

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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 heavy oil, including foreign oil, by approximately 99 percent – from approximately 41 million barrels annually in 2001 to 0.1 million barrels in 2021. FPL also has one of the lowest emissions profiles among U.S. utilities, and its carbon dioxide (CO₂) emission rate in 2021 was approximately 28% lower than the industry national average. FPL's Northwest Florida region (formerly Gulf Power) has reduced its sulfur dioxide (SO₂) emissions by 99%, its nitrogen oxide (NOx) emissions by 85%, and its carbon dioxide emissions by 60%, from 2001 to 2021. At the end of 2021, FPL had approximately 3,239 MW of solar generation capability on its system which consists of approximately 3,164 MW of universal solar PV and 75 MW of solar thermal, making FPL the largest producer of solar energy-generated electricity in Florida. In addition, FPL also has renewable energy purchase agreements for approximately 120 MW of universal solar PV generation and approximately 80 MW of wind.

This 2022 Site Plan for FPL presents a Recommended resource plan which shows a significant amount of additional solar. FPL's system is projected to have approximately 12,701 MW of solar (including solar thermal) by the end of the 10-year reporting period (2031) 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, the Everglades Mitigation Bank, the Turkey Point Crocodile Management Program, and the Longleaf Pine Alliance. Since 2007, FPL has invested more than \$141 million to construct and retrofit more than 157,000 poles to make them more bird-friendly, reducing avian risk and improving service reliability to our customers. In 2017, FPL launched its Solar Stewardship program in partnership with Audubon Florida. The majority of FPL's current and future solar sites will have stewardship plans designed and implemented to provide site-specific environmental enhancements, like the planting of native trees, shrubs, and grasses, to make sites even more wildlife friendly.

NextEra Energy has been recognized often by third parties for its efforts in sustainability, corporate responsibility, ethics and compliance, and diversity. NextEra Energy is ranked No. 1 in the electric

and gas utilities industry on Fortune's 2021 list of "World's Most Admired Companies." The annual list recognizes companies that have had a positive social impact through activities that are part of their core business strategy. NextEra Energy was also recognized on Fortune's 2021 list of companies that "Change the World" and received the S&P Global Platts 2020 Energy Transition Award for leadership in environmental, social and governance. NextEra Energy was named one of the "2021 World's Most Ethical Companies™" by Ethisphere Institute which recognizes companies' critical roles in influencing and driving positive change in both the business community and societies around the world. In 2021, NextEra Energy also was one of only 13 current honorees in the world to achieve this prestigious honor 14 or more times and one of only nine companies in the energy and utilities sector worldwide to receive the recognition in 2021.

Multiple NextEra Energy facilities, including FPL headquarters in Juno Beach, Florida, have 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. In June 2020, the Miami-Dade County Commission approved FPL's proposed development of a reclaimed water project that will reuse treated wastewater from the county at FPL's Turkey Point Clean Energy Center. The FPL Miami-Dade Clean Water Recovery Center is expected to treat up to 15 million gallons of wastewater per day for cooling of Turkey Point Unit 5. Pursuing alternate water sources, such as the use of approximately 13.0 million gallons per day of treated wastewater for cooling the West County Energy Center and 2.6 million gallons per day at the Gulf Clean Energy Center reduces the need to access ground or surface water resources.

IV.B Environmental Organization Contributions

In 2021, FPL supported a broad base of environmental organizations with sponsorships, and the NextEra Energy Foundation donations focused on education, conservation, and research. Those organizations include: Everglades Foundation, The Nature Conservancy, Loggerhead Marinelife Center, Inc., Fish & Wildlife Foundation of Florida, Florida State Parks Foundation, Florida Wildlife Federation, Inwater Research Group, Defenders of Wildlife, Florida Oceanographic Society, Zoo Miami Foundation, and Audubon (state & local chapters). FPL 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, The Nature Conservancy in Florida, Grassy Waters Conservancy, Loggerhead Marinelife Center, Everglades Foundation, Marine Resources Council, and Audubon Florida. FPL employees also invest volunteer hours supporting conservation partners in maintaining, restoring and protecting waters, wetlands, forests, beaches, parks, historic sites, and wildlife.

IV.C 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 2021 environmental outreach activities are summarized in Table IV.C.1.

Table IV.C.1: 2021 FPL Environmental Outreach Activities

Activity	Count (#)
Visitors to Manatee Lagoon - An FPL Eco-Discovery Center	37,468
Number of website visits to Manatee Lagoon website, visitmanateelagoon.com	201,573
Number of website visits to NextEra and FPL's Environmental & Corporate Sustainability Websites	53,088
Visitors to Manatee Park, Ft. Myers	255,425
Home Energy Surveys	Field Visits: 8,626 Phone: 11,016 Online: 65,236 Total: 84,878

Note that many of the visitor numbers above were reduced in 2021 due to COVID restrictions. These visitor numbers were significantly higher in prior years.

IV.D 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
- Seek innovative solutions

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 complies with all environmental laws, regulations, and permit requirements, and they design, construct, and operate their facilities in an environmentally sound and responsible manner. FPL also responds immediately and effectively to any known environmental hazards or non-compliance situations. The 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 their operations and day-to-day work activities. FPL encourages cost-effective, efficient uses of energy, both within the Company and by their 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, they have developed rigorous environmental governance procedures and programs. These include its Environmental Assurance Program. Through this program, 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.E Environmental Management

In order to successfully implement this 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.F 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.

IV.F 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 corporate policies. In addition to FPL facility audits, through the Environmental Assurance Program, audits of third-party vendors used for recycling and/or disposal of waste generated by FPL operations are performed. Vendor audits provide information used for selecting candidate or incumbent vendors for disposal and recycling needs.

In addition to periodic environmental audits, NextEra Energy Inc.'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 corporate policies during the construction phase. Additionally, the Construction Compliance Assurance Program has integrated remote

satellite monitoring technology to broaden its inspection capabilities and increase the frequency of onsite observations.

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 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.

IV.G Preferred and Potential Sites

Based upon projection of future resource needs and analyses of viable resource options, 37 Preferred Sites and 23 Potential Sites have been identified for adding future generation. Some of these sites currently have existing generation. Preferred Sites are those locations where significant reviews have taken place and action has either been taken, action is committed, or it is likely that action will be taken 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 a definitive decision to pursue new generation (or generation expansion or modernization in the case of an existing generation site) at that location has been made, nor does this designation necessarily indicate that the size or technology of a generating resource has been determined. The Preferred Sites and Potential Sites are discussed in separate sections below.

IV.G.1 Preferred Sites

For the 2022 Ten Year Site Plan, 37 Preferred Sites have been identified. These include a combination of existing and new sites for the development of solar generation facilities, natural gasfueled combined cycle units, battery storage, and nuclear generation. Sites for a number of solar additions in 2022 through 2024 have been selected, and these sites are described in this section. Potential sites for possible 2025 and beyond solar additions, plus other types of generation, are discussed later in the Potential Site section.

These 37 Preferred Sites are listed in Table IV.G.1 below, and information regarding each site is presented in the Appendix which is located at the end of this TYSP document. The sites are presented in general chronological order of when resources are projected to be added to the FPL system. The topographical features of each site, land use, and facility layout figures are provided in maps that also appear in the Appendix at the end of this TYSP document.

Table IV.G.1: List of FPL Preferred Sites

Site Name	County	Technology
Dania Beach Clean Energy Center	Broward	CC
Everglades Solar Energy Center	Miami-Dade	Solar
Pink Trail Solar Energy Center	St. Lucie	Solar
Bluefield Preserve Solar Energy Center	St. Lucie	Solar
Cavendish Solar Energy Center	Okeechobee	Solar
Anhinga Solar Energy Center	Clay	Solar
Blackwater River Solar Energy Center	Santa Rosa	Solar
Chipola River Solar Energy Center	Calhoun	Solar
Flowers Creek Solar Energy Center	Calhoun	Solar
First City Solar Energy Center	Escambia	Solar
Apalachee Solar Energy Center	Jackson	Solar
Wild Azalea Solar Energy Center	Gadsden	Solar
Chautauqua Solar Energy Center	Walton	Solar
Shirer Branch Solar Energy Center	Calhoun	Solar
Saw Palmetto Solar Energy Center	Bay	Solar
Cypress Pond Solar Energy Center	Washington	Solar
Etonia Creek Solar Energy Center	Putnam	Solar
Terrill Creek Solar Energy Center	Clay	Solar
Silver Palm Solar Energy Center	Palm Beach	Solar
Ibis Solar Energy Center	Brevard	Solar
Woodyard Solar Energy Center	Hendry	Solar
Beautyberry Solar Energy Center	Hendry	Solar
Turnpike Solar Energy Center	Indian River	Solar
Monarch Solar Energy Center	Martin	Solar
Caloosahatchee Solar Energy Center	Hendry	Solar
White Tail Solar Energy Center	Martin	Solar
Prairie Creek Solar Energy Center	DeSoto	Solar
Pineapple Solar Energy Center	St. Lucie	Solar
Canoe Solar Energy Center	Okaloosa	Solar
Sparkleberry Solar Energy Center	Escambia	Solar
Sambucus Solar Energy Center	Manatee	Solar
Three Creeks Solar Energy Center	Manatee	Solar
Thomas Creek Solar Energy Center	Nassau	Solar
Big Juniper Creek Solar Energy Center	Santa Rosa	Solar
Wild Quail Solar Energy Center	Walton	Solar
Pecan Tree Solar Energy Center	Walton	Solar
Turkey Point Units 6 & 7	Miami-Dade	Nuclear

IV.G.2 Potential Sites

There are 22 Potential Sites that have currently been identified for future generation and storage additions to meet projected capacity and energy needs. 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-fueled 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. These Potential Sites are listed in Table IV.G.2 below and are briefly discussed in the Appendix located at the end of this TYSP document.

Table IV.G.2: List of FPL Potential Sites

Name	County	Technology
Hawthorne Creek Solar Energy Center	Desoto	Solar
Nature Trail Solar Energy Center	Baker	Solar
Fawn Solar Energy Center	Martin	Solar
Holopaw Solar Energy Center	Palm Beach	Solar
Crystal Mine Solar Energy Center	Okeechobee	Solar
Buttonwood Solar Energy Center	St. Lucie	Solar
Orchard Solar Energy Center	St. Lucie/ Indian River	Solar
Hog Bay Solar Energy Center	DeSoto	Solar
Green Pasture Solar Energy Center	Charlotte	Solar
Fox Trail Solar Energy Center	Brevard	Solar
Hendry Solar Energy Center	Hendry	Solar
Honeybell Solar Energy Center	Okeechobee	Solar
Big Water Solar Energy Center	Okeechobee	Solar
Hendry Isles Solar Energy Center	Hendry	Solar
Rayland Solar Energy Center	Nassau	Solar
New River Solar Energy Center	Union	Solar
Georges Lakes Solar Energy Center	Putnam	Solar
Cedar Trail Solar Energy Center	Baker	Solar
Fourmile Creek Solar Energy Center	Calhoun	Solar
Swallowtail Solar Energy Center	Walton	Solar
Hardwood Hammock Solar Energy Center	Walton	Solar
Iron Rock Solar Energy Center	Escambia	Solar

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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, and the former Gulf Power's (now FPL's Northwest Florida region), ties to its neighboring electric systems. (FPL, and the Northwest Florida region are already legally merged into a single electric utility entity. They are scheduled to be electrically connected starting in mid-2022.) 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 and FPL Northwest Florida areas, 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 the FPL and FPL Northwest Florida areas from outside entities as well as historical levels of available assistance. In the loss of load probability (LOLP) portion of its reliability analyses, FPL's resource planning group models the amount of external assistance as an additional generator(s) within the 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.

Internal transmission limitations are addressed in economic analyses by identifying potential geographic locations for potential new generating units that minimize adverse impacts to the flow of electricity within the 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 generating units in the 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, the potential to avoid or defer regional transmission additions that might otherwise be needed is typically analyzed. In addition, transfer limits for capacity and energy that can be imported into the Southeastern Florida region of FPL's area (Miami-Dade and Broward Counties), or transferred between FPL and FPL Northwest Florida service areas once the two service areas are interconnected by the North Florida Resiliency Connection transmission line project (now under construction), are also developed, as applicable, for use in reliability analyses and production costing analyses. (The need to maintain a regional balance between generation and transmission in Southeastern Florida is also discussed in the Executive Summary and in Chapter III.)

Annual transmission planning work determines transmission additions needed to address limitations and maintain/enhance system and regional reliability. Planned transmission facilities to interconnect and integrate generating units in the resource plan, 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's resource planning group typically performs economic analyses of competing resource plans using 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, the equivalent criterion of the cumulative present value of revenue requirements (CPVRR) may also be used.²⁰

After much analysis, FPL developed a hybrid-type peak load forecast that consists of extreme temperatures and electric load for the month of January only, with a business as usual P50 peak forecast for the other 11 months. FPL used this forecast to develop the "Recommended" resource plan presented in the document. A "Business as Usual" resource plan, which uses the P50 peak forecast for all 12 months, is also presented in this document.

²⁰ 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, resource options can be evaluated 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 used to derive fuel price forecasts are discussed in Chapter III of this document. FPL's resource planning group 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 the 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 October 2021. Based on the facts that this fuel cost forecast is projecting natural gas prices that are already low by historical standards, and that the resource plan consists predominantly of solar additions, there was not a need to utilize different fuel cost forecasts to test the resource plan.

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 2021 and early 2022 resource planning work, a forecast scenario in which the differential between oil/gas and coal was held constant was not utilized. This is, in part, because FPL is currently using, and is projected to use, very little oil or coal. These trends are 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 is 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 the existing generating units. The values used for outages and heat rates are generally consistent with the values that have been used in planning studies in recent years.

For 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 (as appropriate), 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.

The financial assumptions used in the resource planning analyses that led to the resource plan that is presented in this 2022 Ten Year Site Plan were: an incremental capital structure of 40.40% debt and 59.60% equity; (ii) a 3.51% cost of debt; (iii) a 10.60% return on equity; and (iv) an after-tax discount rate of 7.38%. No other financial assumptions were used in the 2021/early 2022 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 electricity rate levels, with the objective generally being to minimize the 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's resource planning group 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's resource planning group 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.

As discussed in Chapter II, FPL assumed an extreme Winter peak load forecast at a level much higher than its normal P50 Winter load forecast for purposes of planning for extreme Winter peaks. For FPL's Recommended resource plan (which plans for this extreme Winter load), FPL adds resources to meet this peak load exactly, without any additional reserves. For FPL's Business as Usual resource plan, a P50 Winter load forecast and a 20% minimum reserve margin criterion continue to be used for Winter planning. Because of the additional resources added in the Recommended resource plan to meet the higher forecasted load, this resource plan also meets a 20% minimum reserve margin criterion if applied to a P50 Winter load forecast.

For transmission reliability analysis, transmission planning criteria have been adopted that are consistent with those established by the Florida Reliability Coordinating Council (FRCC) and the SERC Reliability Corporation (SERC). The FRCC and SERC have 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, Facility Interconnection Requirements (FIR) documents for both FPL and Gulf systems/areas have been developed. The document for FPL 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. The document for Gulf is available on Gulf's Open Access Same-time Information System (OASIS) website, https://www.oatioasis.com/gulf/index.html, also under the "Interconnection Request Information" directory. Furthermore, all new transmission facilities within the FPL and Gulf service territories that are used to meet FPL and Gulf load are planned to comply with Extreme Wind Loading Criteria as implemented in FPL and Gulf Design Guidelines.

FPL's transmission planning group 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 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 21

Voltage Level (kV)	<u>Vmin (p.u.)</u>	<u>Vmax (p.u.)</u>
69, 115, 138	0.95/0.95	1.05/1.07
161	0.95/0.95	1.05/1.10
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

For approximately the first half of 2022, FPL's Northwest Florida service area (the former Gulf Power service area) will adopt the Southern Company Voltage Schedule Procedures as provided in the link below to the Southern Company OASIS document:

Voltage Schedule Procedures

https://www.oasis.oati.com/woa/docs/SOCO/SOCOdocs/BPO-01 (Voltage Schedules).pdf

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 its load management equipment to ensure it is functioning

²¹ 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 0.90pu 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.

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's resource planning group 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. 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 utility system, including projected environmental compliance costs. Technologies regarded as more acceptable from an environmental perspective for a prospective resource plan are those that minimize environmental impacts for the utility 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 fewer barriers to successful development.

All of these factors play a part in resource planning and decision-making, including 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 2022 Site Plan, the current resource plan reflects the following major supply-side or generation resource additions in FPL's area: combustion turbine (CT) component upgrades at various existing CCs, addition of new PV facilities, addition of new battery storage facilities, and the addition of new

CC capacity at the Dania Beach Energy Center Unit 7 through the modernization of FPL's existing Lauderdale plant site.

CT upgrades are planned to take place at various CC units throughout the FPL area that address either Summer or Winter capacity. The original equipment manufacturers (OEM) of the CTs approached FPL regarding the possibility of upgrading these units. Following negotiations with the OEMs and economic analyses that showed upgrading was cost-effective for customers, FPL decided to proceed with the CT upgrades and the supporting balance of plant modifications.

For new solar facilities for FPL, the selection of equipment and installation contractors has been, and will continue to be, done via competitive bidding. FPL's Engineering & Construction (E&C) group seek bids from multiple suppliers for major components such as PV panels, inverters, and step-up transformers. Where possible, this group 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, any bundling of purchases over the planned construction horizon is strategically managed. The remaining balance-of-system (BOS) purchases, such as racking and cabling, as well as engineering and construction services, are typically bid out to multiple contractors to determine the best value.

The selection of equipment and installation contractors for the projected battery storage facilities is being done in a manner similar to that described above for the projected solar facilities.

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 SO₂, NO_x, and CO₂ 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 utilized 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 two new transmission lines that require certification under the Transmission Line Siting Act (as shown on Table III.E.1 in Chapter III). The first is a 500 kV line corridor that was certified in April 1990. The line(s), 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, which is currently scheduled to be in service by June 2030, will utilize the remaining portion of the corridor from Corbett to Levee. The line is needed to increase transmission import capability into the Southeastern Florida region.

The second is another 230 kV line which will connect FPL's Whidden Substation to a new Sweatt 230 kV Substation. A determination of need for the line will be filed with the Florida Public Service Commission in April 2022, and a Final order certifying the corridor for the project will be issued afterwards. The project is scheduled to be completed by December 2025. The construction of this line and substation is necessary to serve existing and future FPL customers in the west Florida area in and around Okeechobee, Highlands, Desoto, Collier, Lee, Sarasota, and Manatee Counties in a reliable and effective manner.

