DUKE ENERGY
FLORIDA

Dianne M. Triplett
DEPUTY GENERAL COUNSEL
Duke Energy Florida, LLC

April 1, 2021

VIA ELECTRONIC DELIVERY

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

Re: *2021 Ten-Year Site Plan Data Request #1; Undocketed*

Dear Mr. Teitzman:

Please find enclosed for filing, Duke Energy Florida, LLC's Response to Staff's Data Request #1, questions 1 and 2 regarding the 2021 TYSP, issued on March 16, 2021.

Thank you for your assistance in this matter. Please feel free to call me at (727) 820-4692 should you have any questions.

Sincerely,

s/ Dianne M. Triplett

Dianne M. Triplett

DMT/mw
Attachments

cc: Donald Phillips and Damian Kistner, Division of Engineering, FPSC

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DEF’s Response Staff’s Data Request Regarding the 2021 TYSP; Questions 1 and 2

1. Please provide an electronic copy of the Company’s Ten-Year Site Plan (TYSP) for the period 2021-2030 (current planning period) in PDF format.

   Response: Please see the attached.

2. Please provide an electronic copy of all schedules and tables in the Company’s current planning period TYSP in Microsoft Excel format.

   Response: Please see the attached schedules in Excel format.

Duke Energy Florida, LLC
Ten-Year Site Plan

April 2021

2021-2030

Submitted to:
Florida Public Service Commission

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LIST OF
REQUIRED SCHEDULES

LIST OF
TABLES AND FIGURES

CODE IDENTIFICATION SHEET

Generating Unit Type

ST - Steam Turbine - Non-Nuclear
NP - Steam Power - Nuclear
GT - Gas Turbine
CT - Combustion Turbine
CC - Combined Cycle
SPP - Small Power Producer
COG - Cogeneration Facility
PV - Photovoltaic

Fuel Type

NUC - Nuclear (Uranium)
NG - Natural Gas
RFO - No. 6 Residual Fuel Oil
DFO - No. 2 Distillate Fuel Oil
BIT - Bituminous Coal
MSW - Municipal Solid Waste
WH - Waste Heat
BIO – Biomass
SO – Solar PV

Fuel Transportation

WA - Water
TK - Truck
RR - Railroad
PL - Pipeline
UN - Unknown

Future Generating Unit Status

A - Generating unit capability increased
D – Generating unit capability decreased
FC - Existing generator planned for conversion to another fuel or energy source
P - Planned for installation but not authorized; not under construction
RP - Proposed for repowering or life extension
RT - Existing generator scheduled for retirement
T - Regulatory approval received but not under construction
U - Under construction, less than or equal to 50% complete
V - Under construction, more than 50% complete

INTRODUCTION

Section 186.801 of the Florida Statutes requires electric generating utilities to submit a Ten-Year Site Plan (TYSP) to the Florida Public Service Commission (FPSC). The TYSP includes historical and projected data pertaining to the utility's load and resource needs as well as a review of those needs. Duke Energy Florida, LLC's (DEF) TYSP is compiled in accordance with FPSC Rules 25-22.070 through 25-22.072, Florida Administrative Code.

DEF's TYSP is based on the projections of long-term planning requirements that are dynamic in nature and subject to change. These planning documents should be used for general guidance concerning DEF's planning assumptions and projections and should not be taken as an assurance that particular events discussed in the TYSP will materialize or that particular plans will be implemented. Information and projections pertinent to periods further out in time are inherently subject to greater uncertainty.

This TYSP document contains four chapters as indicated below:

- **CHAPTER 1 - DESCRIPTION OF EXISTING FACILITIES**

  This chapter provides an overview of DEF's generating resources as well as the transmission and distribution system.

- **CHAPTER 2 - FORECAST OF ELECTRICAL POWER DEMAND AND ENERGY CONSUMPTION**

  Chapter 2 presents the history and forecast for load and peak demand as well as the forecast methodology used. Demand-Side Management (DSM) savings and fuel requirement projections are also included.

- **CHAPTER 3 - FORECAST OF FACILITIES REQUIREMENTS**

  The resource planning forecast, transmission planning forecast as well as the proposed generating facilities and bulk transmission line additions status are discussed in Chapter 3.

- **CHAPTER 4 - ENVIRONMENTAL AND LAND USE INFORMATION**

  Preferred and potential site locations along with any environmental and land use information are presented in this chapter.

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CHAPTER 1

DESCRIPTION OF EXISTING FACILITIES

DUKE ENERGY.
FLORIDA

CHAPTER 1

DESCRIPTION OF EXISTING FACILITIES

EXISTING FACILITIES OVERVIEW

OWNERSHIP

Duke Energy Florida, LLC (DEF or the Company) is a wholly owned subsidiary of Duke Energy Corporation (Duke Energy).

AREA OF SERVICE

DEF has an obligation to serve approximately 1.86 million customers in Florida. Its service area covers approximately 20,000 square miles in west central Florida and includes the densely populated areas around Orlando, as well as the cities of Saint Petersburg and Clearwater. DEF is interconnected with 21 municipal and nine rural electric cooperative systems who serve additional customers in Florida. DEF is subject to the rules and regulations of the Federal Energy Regulatory Commission (FERC), the Nuclear Regulatory Commission (NRC), and the FPSC. DEF's Service Area is shown in Figure 1.1.

TRANSMISSION/DISTRIBUTION

The Company is part of a nationwide interconnected power network that enables power to be exchanged between utilities. The DEF transmission system includes approximately 5,200 circuit miles of transmission lines. The distribution system includes approximately 18,000 circuit miles of overhead distribution conductors and approximately 14,000 circuit miles of underground distribution cable.

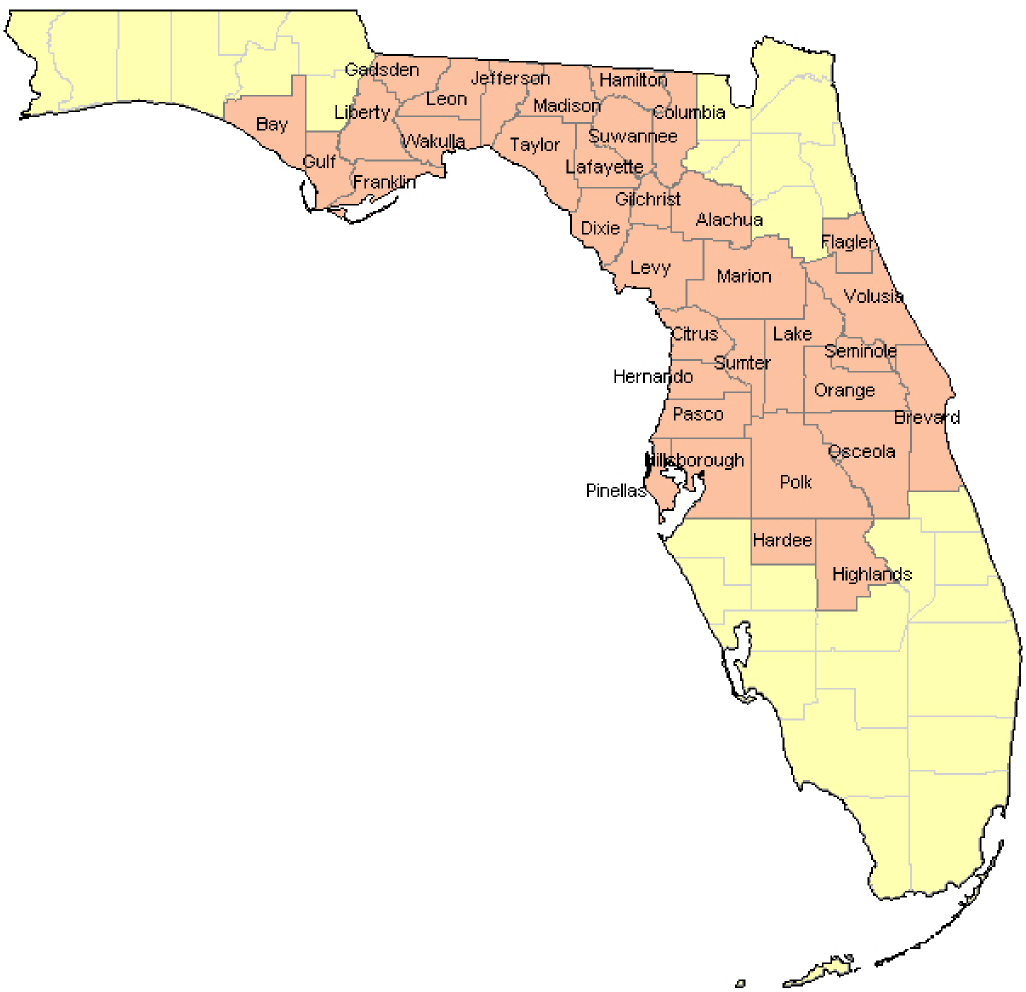
ENERGY MANAGEMENT and ENERGY EFFICIENCY

The Company's residential Energy Management program represents a demand response type of program where participating customers help manage future growth and costs. Approximately 439,000 customers participated in the residential Energy Management program during 2020, contributing about 671 MW of winter peak-shaving capacity for use during high load periods. DEF's currently approved DSM programs consist of five residential programs, six commercial and industrial programs and one research and development program.

TOTAL CAPACITY RESOURCE

As of December 31, 2020, DEF had total summer capacity resources of 11,861 MW consisting of installed capacity of 9,891 MW and 1,970 MW of firm purchased power. Additional information on DEF's existing generating resources can be found in Schedule 1 and Table 3.1 (Chapter 3).

FIGURE 1.1
DUKE ENERGY FLORIDA
County Service Area Map



DUKE ENERGY FLORIDA

SCHEDULE 1
EXISTING GENERATING FACILITIES

AS OF DECEMBER 31, 2020

(1) PLANT NAME	(2) UNIT NO	(3) LOCATION (COUNTY)	(4) UNIT TYPE	(5) FUEL PRI	(6) FUEL ALT	(7) FUEL TRANSPORT PRI	(8) FUEL TRANSPORT ALT	(9) ALT FUEL DAYS USE	(10) COM'L IN-SERVICE MO /YEAR	(11) EXPECTED RETIREMENT MO /YEAR	(12) GEN MAX NAMEPLATE KW	(13) NET CAPABILITY SUMMER MW	(14) NET CAPABILITY WINTER MW
STEAM													
ANCLOTE	1	PASCO	ST	NG		PL			10/74		556,200	508	521
ANCLOTE	2	PASCO	ST	NG		PL			10/78		556,200	505	514
CRYSTAL RIVER	4	CITRUS	ST	BIT		WA	RR		12/82		739,260	712	721
CRYSTAL RIVER	5	CITRUS	ST	BIT		WA	RR		10/84		739,260	710	721
											Steam Total	**2,435**	**2,477**
COMBINED-CYCLE													
P L BARTOW	4	PINELLAS	CC	NG	DFO	PL	TK	*	6/09		1,254,200	1,112	1,259
CITRUS COUNTY COMBINED CYCLE	PB1	CITRUS	CC	NG		PL			10/18		985,150	807	941
CITRUS COUNTY COMBINED CYCLE	PB2	CITRUS	CC	NG		PL			11/18		985,150	803	943
HINES ENERGY COMPLEX	1	POLK	CC	NG		PL			4/99		546,500	490	528
HINES ENERGY COMPLEX	2	POLK	CC	NG	DFO	PL	TK	*	12/03		548,250	524	557
HINES ENERGY COMPLEX	3	POLK	CC	NG	DFO	PL	TK	*	11/05		561,000	521	553
HINES ENERGY COMPLEX	4	POLK	CC	NG	DFO	PL	TK	*	12/07		610,500	519	544
OSPREY ENERGY CENTER POWER PLANT	1	POLK	CC	NG		PL			5/04		644,300	245	245
TIGER BAY	1	POLK	CC	NG		PL			8/97		278,100	200	231
											CC Total	**5,221**	**5,801**
COMBUSTION TURBINE													
BARTOW	P1	PINELLAS	CT	DFO		WA		*	5/72	6/2027 **	55,400	41	52
BARTOW	P2	PINELLAS	CT	NG	DFO	PL	WA	*	6/72		55,400	41	57
BARTOW	P3	PINELLAS	CT	DFO		WA		*	6/72	6/2027 **	55,400	41	53
BARTOW	P4	PINELLAS	CT	NG	DFO	PL	WA	*	6/72		55,400	45	61
BAYBORO	P1	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	44	61
BAYBORO	P2	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	41	58
BAYBORO	P3	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	43	60
BAYBORO	P4	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	43	59
DEBARY	P2	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	48	64
DEBARY	P3	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P4	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P5	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	49	65
DEBARY	P6	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P7	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	79	96
DEBARY	P8	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	78	96
DEBARY	P9	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	80	96
DEBARY	P10	VOLUSIA	CT	DFO		TK		*	10/92		103,500	75	95
INTERCESSION CITY	P1	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	47	64
INTERCESSION CITY	P2	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P3	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P4	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P5	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	45	62
INTERCESSION CITY	P6	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	47	64
INTERCESSION CITY	P7	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	78	95
INTERCESSION CITY	P8	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	79	96
INTERCESSION CITY	P9	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	79	96
INTERCESSION CITY	P10	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	78	96
INTERCESSION CITY	P11	OSCEOLA	CT	DFO		PL,TK		*	1/97		148,500	140	161
INTERCESSION CITY	P12	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	73	90
INTERCESSION CITY	P13	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	75	93
INTERCESSION CITY	P14	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	72	92
SUWANNEE RIVER	P1	SUWANNEE	CT	NG	DFO	PL	TK	*	10/80		65,999	49	68
SUWANNEE RIVER	P2	SUWANNEE	CT	DFO		TK		*	10/80		65,999	50	67
SUWANNEE RIVER	P3	SUWANNEE	CT	NG	DFO	PL	TK	*	11/80		65,999	50	68
UNIVERSITY OF FLORIDA	P1	ALACHUA	GT	NG		PL			1/94	11/2027 **	43,000	43	50
											CT Total	**2,041**	**2,619**
SOLAR													
OSCEOLA SOLAR FACILITY	PV1	OSCEOLA	PV	SO					5/16		3,800	2	0
PERRY SOLAR FACILITY	PV1	TAYLOR	PV	SO					8/16		5,100	2	0
SUWANNEE RIVER SOLAR FACILITY	PV1	SUWANNEE	PV	SO					11/17		8,800	4	0
HAMILTON SOLAR POWER PLANT	PV1	HAMILTON	PV	SO					12/18		74,900	42	0
TRENTON SOLAR POWER PLANT	PV1	GILCHRIST	PV	SO					12/19		74,900	42	0
LAKE PLACID SOLAR POWER PLANT	PV1	HIGHLANDS	PV	SO					12/19		45,000	26	0
ST PETERSBURG PIER	PV1	PINELLAS	PV	SO					12/19		350	0	0
COLUMBIA SOLAR POWER PLANT	PV1	COLUMBIA	PV	SO					3/20		74,900	43	0
DEBARY SOLAR POWER PLANT	PV1	VOLUSIA	PV	SO					5/20		74,500	34	0
											SOLAR Total	**194**	**0**
											TOTAL RESOURCES (MW)	**9,891**	**10,897**

* APPROXIMATELY 2 TO 3 DAYS OF OIL USE TYPICALLY TARGETED FOR ENTIRE PLANT
** DATES FOR RETIREMENT ARE APPROXIMATE AND SUBJECT TO CHANGE

CHAPTER 2

FORECAST OF ELECTRIC POWER DEMAND AND ENERGY CONSUMPTION

CHAPTER 2

FORECAST OF ELECTRIC POWER DEMAND
AND
ENERGY CONSUMPTION

OVERVIEW

The information presented in Schedules 2, 3, and 4 represents DEF's history and forecast of customers, energy sales (GWh), and peak demand (MW). In general, this discussion refers to DEF's base forecast. Economic data from early 2020 reflected a national economy continuing the longest duration expansion in U.S. history until the Spring when the response to the COVID-19 pandemic froze large segments of the U.S. economy. The U.S. Bureau of Labor Statistics (BLS) Household employment survey reported the loss of 25.4 million jobs nationwide between the February and April 2020 reporting periods as emergency orders from the Center of Disease Control dictated restriction in several industries where "social distancing" could not be maintained. The U.S. unemployment rate jumped from 3.5% to 14.8% during this period, the largest short-term increase in unemployment since the Great Depression. Florida unemployment went from 2.8% to 12.9%. While job growth rebounded significantly between May and December, the national economy remained nine million jobs below pre-pandemic levels. Hardest hit by impacts from the pandemic were the Leisure & Hospitality and the Tourism industries, two significant Florida industries, which represented most of the layoffs in Florida.

The Federal government rapidly passed a pandemic relief package which, along with state unemployment compensation, helped mitigate economic damage. Other actions, such as a moratorium on evictions, mortgage foreclosures and significant "monetary accommodations" by the Federal Reserve Bank helped businesses borrow much needed funds.

This action by the Federal Reserve also led to a boom in the housing industry – both in home sales and new construction – as mortgage rates hit record lows. This provided much needed stimulus to the Florida economy which experienced a boost in in-migration from "sending States".

Assumptions around economic activity within the U.S. and DEF service territory are as assumed in the Moody's Analytics July 2020 U.S. Macro and Florida economic projections. The projection called for the U.S. unemployment rate to average a little more than 9% in the second half of 2020 and remain above 6% until late 2022. Admitting a high degree of uncertainty, Moody's did not assume a second wave of virus impacts would disrupt business activity again, they did believe a vaccine would be widely distributed globally by the Summer of 2021. The 2021 outlook calls for a continuing improvement in the job market, a strong housing market and no interest rate hikes by the Federal Reserve until 2023. Additional pandemic relief was expected to be made available if virus cases continued beyond expected in the scenario. Looking ahead, the projections incorporated in this site plan forecast a pickup in growth due to "pent-up" demand. An uptick in the U.S. savings rate during the pandemic appears to support this prediction. DEF continues to provide alternate "high" and "low" forecasts for customers, energy and peak demand growth, recognizing that the current economic expansion may continue to accelerate or could unwind due to an unexpected economic imbalance or global political event.

Over the course of the ten years of history in this Site Plan (2011-2020), the nation and the State of Florida have successfully pulled themselves out of the worst economic downturn (Financial Crisis) in eighty years and then achieved the record for longest economic recovery until its dramatic interruption by the COVID-19 pandemic. High level projections indicate a return to a pre-pandemic GDP level by mid-2021, however, the recovery will not be equal across segments of the economy. Several of these (e.g., travel, housing) are key segments of the Florida economy, which presents future risk in the forecast. While "Eating & Drinking Places" are expected to bounce back quickly, industries such as the theme parks and the cruise ship/airline industries are expected to return much slower than others. Another uncertainty involves commercial real estate. Some believe the vast improvement in office software and "connectivity" may lead to a long-term increase in work-from-home employment. This would dampen the need for office floorspace. Finally, as the economy strengthens a rise in interest/mortgage rates could dampen the current exuberant level of interest in the housing industry. Housing prices have already reached levels keeping homebuying out-of-reach of many first-time homebuyers.

Economic measures are expected to return to somewhat normal levels of growth for both the U.S. and Florida economies over the first half of the Site Plan horizon. There will be a significant level of debt to be repaid by several "actors" in the national economy. This should limit the probability of strong economic growth for several years. Overall, the trends projected in the July Moody's Analytics forecast appear to have held up through the turmoil of the second half of 2020. The Congressional Budget Office (CBO) projected that the U.S. economy will expand more rapidly in 2021 than officials projected in July, but it will take several years for the number of employed workers to return to its pre-pandemic peak. The CBO said the relief bill enacted in December 2020 will add about 1.5% to the level of gross domestic product this year and next.

Florida population growth is expected to continue to be supported by higher numbers of retirees as the height of the Baby-Boomer generation, those born in 1957, turn 65 in 2022. The U.S. set a record of "live births" in 1957 that was only surpassed fifty years later in 2007. The favorable tax climate in Florida helps it attract a significant share of retirees. As a response to the pandemic working remotely has become a viable option. Florida may see additional in-migration as people move to the state to work from home, especially if they already have a second home in Florida. Population growth in the DEF service area has continued to rise. Urban high-rise living has increased in popularity in several major load areas. Ecommerce fulfillment Centers are springing up all around the State's population centers and talk of a Miami-Orlando-Tampa rail system is being planned out. The decision by Nucor Steel to locate in central Florida to produce structural re-bar brings confidence that the State can support more diversified industry.

Historical 29 county service area households, population and people per household data along with the most recent population projections from the University of Florida's Bureau of Economic and Business Research (BEBR Bulletin 186) and Moody's Analytics July 2020 State of Florida economic projections were incorporated into this projection. The DEF service area population has been estimated to have grown at an average ten-year growth of 1.37% from 2011 – 2020 (Schedule 2.1.1 Column 2). Demographic conditions going forward look amenable to sustaining a level of growth closer to 1.18% over the 2021-2030 period. The rate of residential customer growth, which averaged 1.46% per year over the historical ten-year period, is expected to continue at an average of 1.39% for the projected ten years. This projected decline in population growth rate will occur as a result of Baby-Boomers reaching higher mortality rates. A decline in average people per household is expected as well. Total DEF customers grew from 1.642 million in 2011 to 1.864 million in 2020, an increase of 221,653 or 1.42% annual growth rate. The projected number of additional total customers between 2021 and 2030 is 242,217 or 1.35% annual growth rate. Both values parallel the expected population growth.

Responses to the pandemic have changed the patterns of energy consumption. The jump in "work from home" and "schooling from home" has helped increase residential energy consumption. It has been more than offset by significant declines in Commercial and OPA class energy requirements. DEF believes that these class usage patterns will return to pre-pandemic characteristics over time as the country returns to normal.

From 2011 to 2020, net energy for load (NEL) increased by 0.59% per year (Schedule 2.3.1 Column 4). NEL would have been stronger if not for "COVID-19-reduced" energy sales in 2020. The 2011 – 2019 growth rate was 0.66%. In a reversal from previous Site Plans, Sales for Resale ten-year average annual historical growth increased by 0.70% per year, although this was largely due to short term contracts in force in 2019 and 2020. Long term, DEF has gone through a period of losing wholesale load, which is expected to continue. The forecast continues to project an average annual decline of -6.68% through 2030.

During the 2011 to 2020 historical period the DEF summer net firm demand (Schedule 3.1 Column 10) increased from 8,636 MW to 8,921 MW, an average annual ten-year increase of 0.4% per year. Ten-year average customer growth of 1.4% per year was largely offset by higher conservation levels and additional demand response capability. The projected total DEF summer net firm demand increases by an average annual 46 MW or 0.5% per year between 2021 and 2030 due to continued projected growth in retail firm peak demand offset by ongoing projected declines in wholesale summer coincident peak demand. Projected total DEF winter net firm demand increases by an average annual 70 MW or 0.8% per year between 2021 and 2030. Both Summer and Winter Sales for Resale peak demand are expected to increase in 2022 and are expected to decline significantly towards the end of the ten-year projection.

ENERGY CONSUMPTION AND DEMAND FORECAST SCHEDULES

The below schedules have been provided to represent DEF's expectations for a Base Case as well as reasonable High and Low forecast scenarios for resource planning purposes. (Base-B, High-H and Low-L):

SCHEDULE	DESCRIPTION
2.1, 2.2 and 2.3	History and Forecast of Energy Consumption and Number of Customers by Customer Class (B, H and L)
3.1	History and Forecast of Base Summer Peak Demand (MW) (B, H and L)
3.2	History and Forecast of Base Winter Peak Demand (MW) (B, H and L)
3.3	History and Forecast of Base Annual Net Energy for Load (GWh) (B, H and L)
4	Previous Year Actual and Two-Year Forecast of Peak Demand and Net Energy for Load by Month (B, H and L)

DUKE ENERGY FLORIDA

SCHEDULE 2.1.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RURAL AND RESIDENTIAL					COMMERCIAL		
YEAR	DEF POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
HISTORY:								
2011	3,625,558	2.496	19,238	1,452,454	13,245	11,892	162,071	73,374
2012	3,641,179	2.496	18,251	1,458,690	12,512	11,723	163,297	71,792
2013	3,713,013	2.495	18,508	1,488,159	12,437	11,718	165,936	70,617
2014	3,747,160	2.492	19,003	1,503,758	12,637	11,789	167,253	70,485
2015	3,794,138	2.489	19,932	1,524,605	13,074	12,070	169,147	71,359
2016	3,837,436	2.485	20,265	1,543,967	13,126	12,094	170,999	70,724
2017	3,906,975	2.483	19,791	1,573,260	12,579	11,918	173,695	68,612
2018	3,968,241	2.485	20,636	1,597,132	12,920	12,172	175,848	69,216
2019	4,040,257	2.485	20,775	1,626,117	12,776	12,198	178,036	68,514
2020	4,098,889	2.476	21,459	1,655,304	12,964	11,522	179,666	64,129
FORECAST:								
2021	4,161,774	2.474	21,112	1,682,265	12,550	10,841	181,777	59,638
2022	4,221,888	2.469	21,618	1,709,959	12,643	11,231	183,968	61,049
2023	4,279,531	2.464	21,841	1,736,887	12,575	11,468	186,103	61,620
2024	4,334,999	2.459	22,078	1,763,050	12,522	11,600	188,182	61,640
2025	4,388,828	2.454	22,342	1,788,610	12,491	11,668	190,217	61,340
2026	4,440,770	2.449	22,376	1,813,508	12,339	11,601	192,203	60,356
2027	4,490,584	2.444	22,647	1,837,648	12,324	11,654	194,134	60,029
2028	4,538,216	2.439	23,055	1,860,993	12,389	11,823	196,007	60,322
2029	4,583,616	2.434	23,264	1,883,517	12,351	11,897	197,819	60,142
2030	4,626,729	2.428	23,430	1,905,195	12,298	11,986	199,569	60,060

DUKE ENERGY FLORIDA

SCHEDULE 2.1.2
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RURAL AND RESIDENTIAL					COMMERCIAL		
YEAR	DEF POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
HISTORY:								
2011	3,625,558	2.496	19,238	1,452,454	13,245	11,892	162,071	73,374
2012	3,641,179	2.496	18,251	1,458,690	12,512	11,723	163,297	71,792
2013	3,713,013	2.495	18,508	1,488,159	12,437	11,718	165,936	70,617
2014	3,747,160	2.492	19,003	1,503,758	12,637	11,789	167,253	70,485
2015	3,794,138	2.489	19,932	1,524,605	13,074	12,070	169,147	71,359
2016	3,837,436	2.485	20,265	1,543,967	13,126	12,094	170,999	70,724
2017	3,906,975	2.483	19,791	1,573,260	12,579	11,918	173,695	68,612
2018	3,968,241	2.485	20,636	1,597,132	12,920	12,172	175,848	69,216
2019	4,040,257	2.485	20,775	1,626,117	12,776	12,198	178,036	68,514
2020	4,098,889	2.476	21,459	1,655,304	12,964	11,522	179,666	64,129
FORECAST:								
2021	4,164,314	2.474	23,638	1,683,292	14,043	11,782	181,853	64,787
2022	4,230,285	2.469	24,129	1,713,360	14,083	12,137	184,219	65,882
2023	4,297,320	2.464	24,441	1,744,107	14,014	12,336	186,636	66,097
2024	4,365,410	2.459	24,810	1,775,418	13,974	12,484	189,095	66,020
2025	4,434,690	2.454	25,134	1,807,300	13,907	12,551	191,596	65,507
2026	4,505,061	2.449	25,343	1,839,762	13,775	12,478	194,141	64,272
2027	4,576,522	2.444	25,756	1,872,815	13,753	12,526	196,730	63,671
2028	4,649,117	2.439	26,308	1,906,470	13,799	12,686	199,363	63,631
2029	4,722,865	2.434	26,719	1,940,738	13,767	12,756	202,042	63,136
2030	4,797,778	2.428	27,101	1,975,630	13,718	12,837	204,767	62,688

DUKE ENERGY FLORIDA

SCHEDULE 2 1 3
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RURAL AND RESIDENTIAL					COMMERCIAL		
YEAR	DEF POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
HISTORY:								
2011	3,625,558	2 496	19,238	1,452,454	13,245	11,892	162,071	73,374
2012	3,641,179	2 496	18,251	1,458,690	12,512	11,723	163,297	71,792
2013	3,713,013	2 495	18,508	1,488,159	12,437	11,718	165,936	70,617
2014	3,747,160	2 492	19,003	1,503,758	12,637	11,789	167,253	70,485
2015	3,794,138	2 489	19,932	1,524,605	13,074	12,070	169,147	71,359
2016	3,837,436	2 485	20,265	1,543,967	13,126	12,094	170,999	70,724
2017	3,906,975	2 483	19,791	1,573,260	12,579	11,918	173,695	68,612
2018	3,968,241	2 485	20,636	1,597,132	12,920	12,172	175,848	69,216
2019	4,040,257	2 485	20,775	1,626,117	12,776	12,198	178,036	68,514
2020	4,098,889	2 476	21,459	1,655,304	12,964	11,522	179,666	64,129
FORECAST:								
2021	4,135,620	2 474	18,942	1,671,693	11,331	10,616	180,997	58,654
2022	4,171,039	2 469	19,174	1,689,364	11,350	10,923	182,448	59,867
2023	4,206,782	2 464	19,297	1,707,361	11,302	11,219	183,924	60,998
2024	4,242,825	2 459	19,467	1,725,563	11,281	11,408	185,416	61,527
2025	4,279,284	2 454	19,635	1,743,966	11,259	11,526	186,923	61,663
2026	4,316,047	2 449	19,650	1,762,574	11,149	11,452	188,445	60,773
2027	4,353,101	2 444	19,839	1,781,387	11,137	11,470	189,982	60,373
2028	4,390,475	2 439	20,141	1,800,408	11,187	11,598	191,536	60,554
2029	4,428,170	2 434	20,300	1,819,641	11,156	11,646	193,105	60,312
2030	4,466,184	2 428	20,427	1,839,086	11,107	11,705	194,691	60,123

DUKE ENERGY FLORIDA

SCHEDULE 2 2 1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
YEAR	GWh	AVERAGE NO OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	RAILROADS AND RAILWAYS GWh	STREET & HIGHWAY LIGHTING GWh	OTHER SALES TO PUBLIC AUTHORITIES GWh	TOTAL SALES TO ULTIMATE CONSUMERS GWh
HISTORY:							
2011	3,243	2,408	1,346,761	0	25	3,200	37,598
2012	3,160	2,372	1,332,209	0	25	3,221	36,381
2013	3,206	2,343	1,368,331	0	25	3,159	36,616
2014	3,267	2,280	1,432,895	0	25	3,157	37,240
2015	3,293	2,243	1,468,123	0	24	3,234	38,553
2016	3,197	2,178	1,467,860	0	24	3,194	38,774
2017	3,120	2,137	1,459,991	0	24	3,171	38,023
2018	3,107	2,080	1,493,750	0	24	3,206	39,144
2019	2,963	2,025	1,463,210	0	24	3,227	39,187
2020	3,147	1,999	1,574,287	0	23	3,079	39,230
FORECAST:							
2021	3,428	1,978	1,733,499	0	23	3,126	38,530
2022	3,493	1,959	1,782,897	0	23	3,203	39,568
2023	3,555	1,942	1,830,858	0	22	3,237	40,123
2024	3,581	1,930	1,856,093	0	22	3,263	40,543
2025	3,590	1,919	1,871,407	0	22	3,290	40,913
2026	3,576	1,907	1,875,473	0	22	3,318	40,893
2027	3,577	1,895	1,888,208	0	22	3,350	41,250
2028	3,594	1,883	1,909,224	0	22	3,388	41,883
2029	3,590	1,871	1,919,514	0	22	3,429	42,202
2030	3,592	1,865	1,926,111	0	22	3,470	42,501

DUKE ENERGY FLORIDA

SCHEDULE 2 2.2
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
YEAR	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	RAILROADS AND RAILWAYS GWh	STREET & HIGHWAY LIGHTING GWh	OTHER SALES TO PUBLIC AUTHORITIES GWh	TOTAL SALES TO ULTIMATE CONSUMERS GWh
HISTORY:							
2011	3,243	2,408	1,346,761	0	25	3,200	37,598
2012	3,160	2,372	1,332,209	0	25	3,221	36,381
2013	3,206	2,343	1,368,331	0	25	3,159	36,616
2014	3,267	2,280	1,432,895	0	25	3,157	37,240
2015	3,293	2,243	1,468,123	0	24	3,234	38,553
2016	3,197	2,178	1,467,860	0	24	3,194	38,774
2017	3,120	2,137	1,459,991	0	24	3,171	38,023
2018	3,107	2,080	1,493,750	0	24	3,206	39,144
2019	2,963	2,025	1,463,210	0	24	3,227	39,187
2020	3,147	1,999	1,574,287	0	23	3,079	39,230
FORECAST:							
2021	3,480	1,978	1,759,625	0	23	3,243	42,165
2022	3,543	1,959	1,808,693	0	23	3,320	43,152
2023	3,603	1,942	1,855,694	0	22	3,363	43,765
2024	3,630	1,930	1,881,200	0	22	3,392	44,338
2025	3,639	1,919	1,896,596	0	22	3,418	44,764
2026	3,623	1,907	1,900,602	0	22	3,449	44,915
2027	3,625	1,895	1,913,318	0	22	3,483	45,412
2028	3,642	1,883	1,934,412	0	22	3,522	46,180
2029	3,638	1,871	1,944,814	0	22	3,565	46,700
2030	3,639	1,865	1,951,318	0	22	3,609	47,207

DUKE ENERGY FLORIDA

SCHEDULE 2 2 3
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
YEAR	GWh	AVERAGE NO OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	RAILROADS AND RAILWAYS GWh	STREET & HIGHWAY LIGHTING GWh	OTHER SALES TO PUBLIC AUTHORITIES GWh	TOTAL SALES TO ULTIMATE CONSUMERS GWh
HISTORY:							
2011	3,243	2,408	1,346,761	0	25	3,200	37,598
2012	3,160	2,372	1,332,209	0	25	3,221	36,381
2013	3,206	2,343	1,368,331	0	25	3,159	36,616
2014	3,267	2,280	1,432,895	0	25	3,157	37,240
2015	3,293	2,243	1,468,123	0	24	3,234	38,553
2016	3,197	2,178	1,467,860	0	24	3,194	38,774
2017	3,120	2,137	1,459,991	0	24	3,171	38,023
2018	3,107	2,080	1,493,750	0	24	3,206	39,144
2019	2,963	2,025	1,463,210	0	24	3,227	39,187
2020	3,147	1,999	1,574,287	0	23	3,079	39,230
FORECAST:							
2021	3,338	1,978	1,688,202	0	23	3,011	35,930
2022	3,404	1,959	1,737,584	0	23	3,074	36,597
2023	3,482	1,942	1,793,259	0	22	3,099	37,119
2024	3,513	1,930	1,820,903	0	22	3,125	37,536
2025	3,530	1,919	1,839,763	0	22	3,157	37,869
2026	3,518	1,907	1,845,020	0	22	3,187	37,830
2027	3,519	1,895	1,857,617	0	22	3,219	38,070
2028	3,536	1,883	1,878,425	0	22	3,256	38,554
2029	3,533	1,871	1,888,578	0	22	3,297	38,798
2030	3,534	1,865	1,894,973	0	22	3,338	39,027

DUKE ENERGY FLORIDA

SCHEDULE 2.3.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	SALES FOR RESALE GWh	UTILITY USE & LOSSES GWh	NET ENERGY FOR LOAD GWh	OTHER CUSTOMERS (AVERAGE NO.)	TOTAL NO. OF CUSTOMERS
HISTORY:					
2011	2,712	2,180	42,490	25,228	1,642,161
2012	1,768	3,065	41,214	25,480	1,649,839
2013	1,488	2,668	40,772	25,759	1,682,197
2014	1,333	2,402	40,975	25,800	1,699,091
2015	1,243	2,484	42,280	25,866	1,721,861
2016	1,803	2,277	42,854	26,005	1,743,149
2017	2,196	2,700	42,919	26,248	1,775,340
2018	2,324	2,756	44,224	26,504	1,801,564
2019	2,910	2,704	44,801	26,707	1,832,885
2020	2,887	2,697	44,814	26,845	1,863,814
FORECAST:					
2021	1,672	2,900	43,103	27,005	1,893,024
2022	2,557	2,855	44,980	27,182	1,923,069
2023	1,404	2,897	44,424	27,358	1,952,290
2024	1,404	3,062	45,010	27,535	1,980,697
2025	915	2,796	44,624	27,712	2,008,458
2026	915	3,078	44,886	27,892	2,035,509
2027	911	3,091	45,252	28,071	2,061,747
2028	898	2,971	45,751	28,251	2,087,134
2029	898	3,025	46,125	28,432	2,111,638
2030	898	3,085	46,483	28,612	2,135,241

DUKE ENERGY FLORIDA

SCHEDULE 2.3.2
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	SALES FOR RESALE GWh	UTILITY USE & LOSSES GWh	NET ENERGY FOR LOAD GWh	OTHER CUSTOMERS (AVERAGE NO.)	TOTAL NO. OF CUSTOMERS
HISTORY:					
2011	2,712	2,180	42,490	25,228	1,642,161
2012	1,768	3,065	41,214	25,480	1,649,839
2013	1,488	2,668	40,772	25,759	1,682,197
2014	1,333	2,402	40,975	25,800	1,699,091
2015	1,243	2,484	42,280	25,866	1,721,861
2016	1,803	2,277	42,854	26,005	1,743,149
2017	2,196	2,700	42,919	26,248	1,775,340
2018	2,324	2,756	44,224	26,504	1,801,564
2019	2,910	2,704	44,801	26,707	1,832,885
2020	2,887	2,697	44,814	26,845	1,863,814
FORECAST:					
2021	1,672	3,427	47,264	26,998	1,894,120
2022	2,557	3,407	49,116	27,175	1,926,713
2023	1,404	3,453	48,623	27,352	1,960,036
2024	1,404	3,608	49,350	27,529	1,993,973
2025	915	3,409	49,089	27,707	2,028,523
2026	915	3,648	49,478	27,887	2,063,697
2027	911	3,679	50,002	28,066	2,099,506
2028	898	3,600	50,677	28,247	2,135,963
2029	898	3,668	51,266	28,428	2,173,078
2030	898	3,737	51,842	28,608	2,210,869

DUKE ENERGY FLORIDA

SCHEDULE 2.3.3
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)
YEAR	SALES FOR RESALE GWh	UTILITY USE & LOSSES GWh	NET ENERGY FOR LOAD GWh	OTHER CUSTOMERS (AVERAGE NO.)	TOTAL NO. OF CUSTOMERS
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HISTORY:					
2011	2,712	2,180	42,490	25,228	1,642,161
2012	1,768	3,065	41,214	25,480	1,649,839
2013	1,488	2,668	40,772	25,759	1,682,197
2014	1,333	2,402	40,975	25,800	1,699,091
2015	1,243	2,484	42,280	25,866	1,721,861
2016	1,803	2,277	42,854	26,005	1,743,149
2017	2,196	2,700	42,919	26,248	1,775,340
2018	2,324	2,756	44,224	26,504	1,801,564
2019	2,910	2,704	44,801	26,707	1,832,885
2020	2,887	2,697	44,814	26,845	1,863,814
FORECAST:					
2021	1,672	2,519	40,121	26,998	1,881,665
2022	2,557	2,469	41,623	27,175	1,900,947
2023	1,404	2,503	41,026	27,352	1,920,579
2024	1,404	2,635	41,575	27,529	1,940,438
2025	915	2,435	41,219	27,707	1,960,515
2026	915	2,647	41,392	27,887	1,980,812
2027	911	2,655	41,635	28,066	2,001,330
2028	898	2,557	42,008	28,247	2,022,074
2029	898	2,598	42,294	28,428	2,043,044
2030	898	2,640	42,564	28,608	2,064,249

DUKE ENERGY FLORIDA

SCHEDULE 3.1.1
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM. / IND. LOAD MANAGEMENT	COMM. / IND. CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	10,570	740	9,830	364	392	628	85	429	80	8,592
2022	11,108	1,080	10,028	369	393	654	88	432	80	9,092
2023	10,812	662	10,150	374	394	681	91	434	80	8,757
2024	10,940	662	10,278	379	395	707	95	436	80	8,849
2025	10,822	461	10,360	379	396	732	98	438	80	8,699
2026	10,848	461	10,387	379	397	756	101	440	80	8,695
2027	10,946	461	10,485	379	398	779	104	443	80	8,764
2028	11,068	461	10,607	379	399	801	107	445	80	8,857
2029	11,169	461	10,707	379	400	823	111	447	80	8,930
2030	11,271	461	10,809	379	401	844	114	449	80	9,004

Historical Values (2011 - 2020):
Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.
Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.
Col. (OTH) =Customer-owned self-service cogeneration.
Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).
Projected Values (2021 - 2030):
Cols. (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration.
Cols. (5) - (9) = cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.
Col. (OTH) = customer-owned self-service cogeneration.
Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

DUKE ENERGY FLORIDA

SCHEDULE 3.1.2
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM. / IND. LOAD MANAGEMENT	COMM. / IND. CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1,080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1,021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	11,370	740	10,630	364	392	628	85	429	80	9,391
2022	11,910	1,080	10,830	369	393	654	88	432	80	9,894
2023	11,627	662	10,965	374	394	681	91	434	80	9,572
2024	11,777	662	11,115	379	395	707	95	436	80	9,686
2025	11,631	461	11,170	379	396	732	98	438	80	9,509
2026	11,675	461	11,213	379	397	756	101	440	80	9,522
2027	11,799	461	11,338	379	398	779	104	443	80	9,617
2028	11,951	461	11,490	379	399	801	107	445	80	9,740
2029	12,090	461	11,628	379	400	823	111	447	80	9,850
2030	12,229	461	11,768	379	401	844	114	449	80	9,963

Historical Values (2011 - 2020):
Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.
Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.
Col. (OTH) =Customer-owned self-service cogeneration.
Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).
Projected Values (2021 - 2030):
Cols. (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration.
Cols. (5) - (9) = cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.
Col. (OTH) = customer-owned self-service cogeneration.
Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

DUKE ENERGY FLORIDA

SCHEDULE 3.1.3
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM. / IND. LOAD MANAGEMENT	COMM. / IND. CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1,080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1,021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	9,543	740	8,803	364	392	628	85	429	80	7,564
2022	10,023	1,080	8,943	369	393	654	88	432	80	8,007
2023	9,733	662	9,071	374	394	681	91	434	80	7,678
2024	9,860	662	9,198	379	395	707	95	436	80	7,769
2025	9,708	461	9,247	379	396	732	98	438	80	7,586
2026	9,713	461	9,252	379	397	756	101	440	80	7,560
2027	9,784	461	9,323	379	398	779	104	443	80	7,602
2028	9,877	461	9,416	379	399	801	107	445	80	7,666
2029	9,958	461	9,497	379	400	823	111	447	80	7,719
2030	10,040	461	9,579	379	401	844	114	449	80	7,774

Historical Values (2011 - 2020):

Col. (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration.

Cols. (5) - (9) = Represent total cumulative capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) =Customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

Projected Values (2021 - 2030):

Cols. (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration.

Cols. (5) - (9) = cumulative conservation and load control capabilities at peak. Col. (8) includes commercial load management and standby generation.

Col. (OTH) = customer-owned self-service cogeneration.

Col. (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH).

DUKE ENERGY FLORIDA

SCHEDULE 3 2 1
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RES DENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	10,698	656	10,042	313	669	983	82	259	189	8,203
2021/22	11,905	1,652	10,253	317	670	999	84	262	191	9,382
2022/23	11,664	1,265	10,400	322	671	1,014	88	265	193	9,113
2023/24	11,810	1,265	10,545	325	672	1,027	91	268	194	9,233
2024/25	11,656	1,064	10,592	325	673	1,043	94	270	194	9,057
2025/26	11,784	1,064	10,720	325	674	1,057	97	273	196	9,162
2026/27	11,871	1,064	10,807	325	675	1,070	100	276	196	9,228
2027/28	11,379	462	10,917	325	676	1,083	103	279	198	8,715
2028/29	11,463	462	11,000	325	677	1,095	107	282	198	8,779
2029/30	11,533	462	11,070	325	678	1,107	110	285	199	8,829

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 2 2
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1,625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1,035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1,275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1,071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	13,160	656	12,504	313	669	983	82	259	189	10,665
2021/22	14,403	1,652	12,751	317	670	999	84	262	191	11,880
2022/23	14,208	1,265	12,943	322	671	1,014	88	265	193	11,656
2023/24	14,415	1,265	13,150	325	672	1,027	91	268	194	11,837
2024/25	14,309	1,064	13,245	325	673	1,043	94	270	194	11,710
2025/26	14,487	1,064	13,423	325	674	1,057	97	273	196	11,866
2026/27	14,632	1,064	13,568	325	675	1,070	100	276	196	11,989
2027/28	14,205	462	13,743	325	676	1,083	103	279	198	11,541
2028/29	14,365	462	13,902	325	677	1,095	107	282	198	11,681
2029/30	14,511	462	14,049	325	678	1,107	110	285	199	11,807

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 2 3
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPT BLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1,625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1,035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1,275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1,071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	8,659	656	8,003	313	669	983	82	259	189	6,164
2021/22	9,760	1,652	8,109	317	670	999	84	262	191	7,237
2022/23	9,483	1,265	8,218	322	671	1,014	88	265	193	6,931
2023/24	9,590	1,265	8,326	325	672	1,027	91	268	194	7,013
2024/25	9,428	1,064	8,364	325	673	1,043	94	270	194	6,828
2025/26	9,529	1,064	8,465	325	674	1,057	97	273	196	6,907
2026/27	9,582	1,064	8,518	325	675	1,070	100	276	196	6,939
2027/28	9,054	462	8,592	325	676	1,083	103	279	198	6,391
2028/29	9,112	462	8,650	325	677	1,095	107	282	198	6,428
2028/29	9,157	462	8,695	325	678	1,107	110	285	199	6,454

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 3 1
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM / IND CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
HISTORY:									
2011	44,580	687	624	779	37,597	2,712	2,181	42,490	46 7
2012	43,396	733	669	780	36,381	1,768	3,065	41,214	52 1
2013	43,142	772	734	864	36,616	1,488	2,668	40,772	53 0
2014	43,443	812	791	864	37,240	1,333	2,402	40,975	50 7
2015	44,552	848	829	595	38,553	1,243	2,484	42,280	50 9
2016	45,200	892	857	596	38,774	1,803	2,277	42,854	50 6
2017	45,318	933	871	595	38,024	2,196	2,699	42,919	52 7
2018	46,729	977	933	595	39,145	2,324	2,755	44,224	48 9
2019	47,385	1,017	972	595	39,187	2,910	2,704	44,801	51 3
2020	47,379	1,050	919	596	39,230	2,887	2,697	44,814	52 9
FORECAST:									
2021	45,816	1,121	997	595	38,530	1,672	2,900	43,103	57 3
2022	47,753	1,170	1,008	595	39,568	2,557	2,855	44,980	54 7
2023	47,256	1,219	1,017	595	40,123	1,404	2,897	44,424	55 6
2024	47,900	1,267	1,027	596	40,543	1,404	3,062	45,010	55 5
2025	47,567	1,312	1,036	595	40,913	915	2,796	44,624	56 2
2026	47,882	1,356	1,045	595	40,893	915	3,078	44,886	55 9
2027	48,299	1,398	1,053	595	41,250	911	3,091	45,252	56 0
2028	48,848	1,439	1,062	596	41,883	898	2,971	45,751	58 8
2029	49,269	1,479	1,070	595	42,202	898	3,025	46,125	59 0
2030	49,673	1,517	1,077	595	42,501	898	3,085	46,483	58 9

* Load Factors for historical years are calculated using the actual and projected annual peak

DUKE ENERGY FLORIDA

SCHEDULE 3 3 2
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM / IND CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
HISTORY:									
2011	44,580	687	624	779	37,597	2,712	2,181	42,490	46 7
2012	43,396	733	669	780	36,381	1,768	3,065	41,214	52 1
2013	43,142	772	734	864	36,616	1,488	2,668	40,772	53 0
2014	43,443	812	791	864	37,240	1,333	2,402	40,975	50 7
2015	44,552	848	829	595	38,553	1,243	2,484	42,280	50 9
2016	45,200	892	857	596	38,774	1,803	2,277	42,854	50 6
2017	45,318	933	871	595	38,024	2,196	2,699	42,919	52 7
2018	46,729	977	933	595	39,145	2,324	2,755	44,224	48 9
2019	47,385	1,017	972	595	39,187	2,910	2,704	44,801	51 3
2020	47,379	1,050	919	596	39,230	2,887	2,697	44,814	52 9
FORECAST:									
2021	49,977	1,121	997	595	42,165	1,672	3,427	47,264	74 1
2022	51,889	1,170	1,008	595	43,152	2,557	3,407	49,116	52 6
2023	51,454	1,219	1,017	595	43,765	2,557	2,300	48,623	52 0
2024	52,239	1,267	1,027	595	44,338	1,404	3,608	49,350	47 4
2025	52,032	1,312	1,036	595	44,764	915	3,409	49,089	47 3
2026	52,474	1,356	1,045	595	44,915	915	3,648	49,478	48 2
2027	53,049	1,398	1,053	595	45,412	911	3,679	50,002	48 1
2028	53,775	1,439	1,062	596	46,180	898	3,600	50,677	48 1
2029	54,410	1,479	1,070	595	46,700	898	3,668	51,266	50 7
2030	55,032	1,517	1,077	595	47,207	898	3,737	51,842	50 7

* Load Factors for historical years are calculated using the actual and projected annual peak

DUKE ENERGY FLORIDA

SCHEDULE 3 3 3
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM / IND CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
HISTORY:									
2011	44,580	687	624	779	37,597	2,712	2,181	42,490	46 7
2012	43,396	733	669	780	36,381	1,768	3,065	41,214	52 1
2013	43,142	772	734	864	36,616	1,488	2,668	40,772	53 0
2014	43,443	812	791	864	37,240	1,333	2,402	40,975	50 7
2015	44,552	848	829	595	38,553	1,243	2,484	42,280	50 9
2016	45,200	892	857	596	38,774	1,803	2,277	42,854	50 6
2017	45,318	933	871	595	38,024	2,196	2,699	42,919	52 7
2018	46,729	977	933	595	39,145	2,324	2,755	44,224	48 9
2019	47,385	1,017	972	595	39,187	2,910	2,704	44,801	51 3
2020	47,379	1,050	919	596	39,230	2,887	2,697	44,814	52 9
FORECAST:									
2021	42,834	1,121	997	595	35,930	1,672	2,519	40,121	62 9
2022	44,396	1,170	1,008	595	36,597	2,557	2,469	41,623	77 1
2023	43,857	1,219	1,017	595	37,119	1,404	2,503	41,026	64 7
2024	44,465	1,267	1,027	596	37,536	1,404	2,635	41,575	68 3
2025	44,163	1,312	1,036	595	37,869	915	2,435	41,219	67 1
2026	44,388	1,356	1,045	595	37,830	915	2,647	41,392	69 2
2027	44,682	1,398	1,053	595	38,070	911	2,655	41,635	68 8
2028	45,106	1,439	1,062	596	38,554	898	2,557	42,008	68 9
2029	45,438	1,479	1,070	595	38,798	898	2,598	42,294	75 5
2030	45,754	1,517	1,077	595	39,027	898	2,640	42,564	75 6

* Load Factors for historical years are calculated using the actual and projected annual peak

DUKE ENERGY FLORIDA

SCHEDULE 4.1
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**9,376**	3,164	**10,564**	3,337
FEBRUARY	6,312	2,885	8,430	2,878	9,603	3,031
MARCH	8,090	3,394	7,131	3,116	8,262	3,271
APRIL	8,146	3,256	7,435	3,204	8,013	3,354
MAY	8,592	3,775	8,495	3,798	9,093	3,965
JUNE	9,647	4,300	9,110	4,081	9,658	4,256
JULY	9,393	4,688	9,050	4,345	9,557	4,519
AUGUST	**9,623**	4,730	**9,434**	4,452	**9,942**	4,616
SEPTEMBER	9,533	4,218	8,916	4,178	9,438	4,339
OCTOBER	8,468	4,012	8,288	3,605	8,797	3,754
NOVEMBER	6,943	3,169	6,552	3,094	7,057	3,219
DECEMBER	7,551	3,301	7,609	3,186	8,666	3,319
TOTAL		44,814		43,103		44,980

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

DUKE ENERGY FLORIDA

SCHEDULE 4.2
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**11,838**	3,629	**13,062**	3,800
FEBRUARY	6,312	2,885	10,143	3,296	11,336	3,446
MARCH	8,090	3,394	7,976	3,539	9,108	3,691
APRIL	8,146	3,256	7,921	3,534	8,492	3,680
MAY	8,592	3,775	9,167	4,074	9,759	4,236
JUNE	9,647	4,300	9,864	4,355	10,408	4,526
JULY	9,393	4,688	9,820	4,582	10,325	4,751
AUGUST	**9,623**	4,730	**10,233**	4,687	**10,744**	4,847
SEPTEMBER	9,533	4,218	9,635	4,417	10,151	4,574
OCTOBER	8,468	4,012	8,930	3,967	9,433	4,116
NOVEMBER	6,943	3,169	7,103	3,469	7,602	3,595
DECEMBER	7,551	3,301	8,826	3,717	9,890	3,856
TOTAL		44,814		47,264		49,116

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

DUKE ENERGY FLORIDA

SCHEDULE 4.3
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**7,337**	2,863	**8,420**	2,979
FEBRUARY	6,312	2,885	7,047	2,596	8,134	2,702
MARCH	8,090	3,394	6,492	2,839	7,559	2,952
APRIL	8,146	3,256	7,063	2,991	7,581	3,103
MAY	8,592	3,775	7,962	3,586	8,497	3,714
JUNE	9,647	4,300	8,484	3,890	8,959	4,029
JULY	9,393	4,688	8,403	4,168	8,865	4,312
AUGUST	**9,623**	4,730	**8,737**	4,252	**9,189**	4,391
SEPTEMBER	9,533	4,218	8,333	3,984	8,802	4,125
OCTOBER	8,468	4,012	7,785	3,329	8,230	3,461
NOVEMBER	6,943	3,169	6,154	2,828	6,588	2,940
DECEMBER	7,551	3,301	6,622	2,795	7,609	2,915
TOTAL		44,814		40,121		41,623

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

FUEL REQUIREMENTS AND ENERGY SOURCES

DEF's two-year actual and ten-year projected nuclear, coal, oil, and gas requirements (by fuel unit) are shown in Schedule 5. DEF's two-year actual and ten-year projected energy sources by fuel type are presented in Schedules 6.1 and 6.2, in GWh and percent (%) respectively. Although DEF's fuel mix continues to rely on an increasing amount of natural gas to meet its generation needs, DEF continues to maintain alternate fuel supplies including long term operation of some coal fired facilities, adequate supplies of oil for dual fuel back up and increasing amounts of renewable generation particularly from solar generation. Projections shown in Schedules 5 and 6 reflect the Base Load and Energy Forecasts.

DUKE ENERGY FLORIDA

SCHEDULE 5
FUEL REQUIREMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
		FUEL REQUIREMENTS	UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	NUCLEAR		TRILLION BTU	0	0	0	0	0	0	0	0	0	0	0	0
(2)	COAL		1,000 TON	1,976	1,562	4,591	3,625	2,169	1,986	1,730	1,912	1,709	1,864	1,773	2,027
(3)	RESIDUAL	TOTAL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(4)		STEAM	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CT	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)	DISTILLATE	TOTAL	1,000 BBL	121	118	48	66	29	75	77	167	189	252	195	151
(9)		STEAM	1,000 BBL	42	40	7	8	9	10	18	21	22	19	22	18
(10)		CC	1,000 BBL	0	3	0	0	0	0	0	0	0	0	0	0
(11)		CT	1,000 BBL	80	75	41	58	19	65	59	146	166	232	173	132
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	262,546	269,893	191,289	209,888	223,703	235,557	239,872	238,636	249,938	251,710	252,789	245,072
(14)		STEAM	1,000 MCF	25,020	25,624	5,889	6,700	6,288	6,601	7,231	8,277	7,786	8,546	7,594	7,865
(15)		CC	1,000 MCF	226,506	237,427	181,102	198,008	213,170	223,779	227,216	222,635	231,070	232,349	234,111	227,547
(16)		CT	1,000 MCF	11,020	6,841	4,298	5,180	4,245	5,177	5,425	7,724	11,082	10,816	11,084	9,659
	OTHER (SPECIFY)														
(17)	OTHER, DISTILLATE	ANNUAL FIRM INTERCHANGE	1,000 BBL	N/A	N/A	0	0	0	0	0	0	0	0	0	0
(18)	OTHER, NATURAL GAS	ANNUAL FIRM INTERCHANGE, CC	1,000 MCF	N/A	N/A	1,071	0	0	0	0	0	0	0	0	0
(18.1)	OTHER, NATURAL GAS	ANNUAL FIRM INTERCHANGE, CT	1,000 MCF	N/A	N/A	10,154	16,890	14,565	11,553	10,791	14,454	1,805	0	0	0
(19)	OTHER, COAL	ANNUAL FIRM INTERCHANGE, STEAM	1,000 TON	N/A	N/A	0	0	0	0	0	0	0	0	0	0

DUKE ENERGY FLORIDA

SCHEDULE 6.1
ENERGY SOURCES (GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	ANNUAL FIRM NTERCHANGE 1/		GWh	1,277	1,025	976	1,636	1,418	1,126	1,055	1,414	190	40	26	19
(2)	NUCLEAR		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(3)	COAL		GWh	4,322	3,287	10,268	8,035	4,583	4,107	3,531	3,938	3,509	3,869	3,654	4,190
(4)	RESIDUAL	TOTAL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(5)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(7)		CT	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(8)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(9)	DISTILLATE	TOTAL	GWh	33	33	16	22	7	25	22	54	65	91	68	52
(10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	2	0	0	0	0	0	0	0	0	0	0
(12)		CT	GWh	33	31	16	22	7	25	22	54	65	91	68	52
(13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	NATURAL GAS	TOTAL	GWh	35,170	36,327	27,521	30,192	32,397	34,029	34,488	34,081	35,599	35,673	36,006	34,928
(15)		STEAM	GWh	2,278	2,244	351	403	370	395	447	529	483	551	471	487
(16)		CC	GWh	31,992	33,574	26,738	29,286	31,597	33,133	33,518	32,858	34,123	34,221	34,583	33,601
(17)		CT	GWh	900	510	433	503	430	502	523	694	993	900	952	840
(18)	OTHER 2/														
	QF PURCHASES		GWh	1,803	1,769	1,999	1,999	2,004	822	497	2	2	2	2	2
	RENEWABLES OTHER		GWh	0	0	0	0	0	0	0	0	0	0	0	0
	RENEWABLES MSW		GWh	670	654	942	953	953	952	946	946	946	949	946	946
	RENEWABLES BIOMASS		GWh	15	0	0	0	0	0	0	0	0	0	0	0
	RENEWABLES SOLAR		GWh	222	706	1,235	2,143	3,062	3,947	4,085	4,452	4,941	5,127	5,423	6,347
	MPORT FROM OUT OF STATE		GWh	1,290	1,013	146	0	0	0	0	0	0	0	0	0
	EXPORT TO OUT OF STATE		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(19)	NET ENERGY FOR LOAD		GWh	44,801	44,814	43,103	44,980	44,424	45,010	44,624	44,886	45,252	45,751	46,125	46,483

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.
2/ NET ENERGY PURCHASED (+) OR SOLD (-).

DUKE ENERGY FLORIDA

SCHEDULE 6.2

ENERGY SOURCES (PERCENT)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	ANNUAL FIRM INTERCHANGE 1/		%	2.9%	2 3%	2 3%	3.6%	3 2%	2 5%	2.4%	3.1%	0.4%	0.1%	0.1%	0.0%
(2)	NUCLEAR		%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(3)	COAL		%	9.6%	7 3%	23.8%	17 9%	10.3%	9.1%	7.9%	8 8%	7.8%	8.5%	7 9%	9.0%
(4)	RESIDUAL	TOTAL	%	0.0%	0 0%	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%	0 0%	0.0%
(6)		CC	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(7)		CT	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(8)		DIESEL	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(9)	DISTILLATE	TOTAL	%	0.1%	0.1%	0 0%	0.0%	0 0%	0.1%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
(10)		STEAM	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(11)		CC	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(12)		CT	%	0.1%	0.1%	0 0%	0.0%	0 0%	0.1%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
(13)		DIESEL	%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(14)	NATURAL GAS	TOTAL	%	78 5%	81.1%	63.8%	67.1%	72.9%	75.6%	77 3%	75.9%	78.7%	78 0%	78.1%	75.1%
(15)		STEAM	%	5.1%	5 0%	0 8%	0.9%	0 8%	0 9%	1.0%	1 2%	1.1%	1.2%	1 0%	1.0%
(16)		CC	%	71.4%	74.9%	62.0%	65.1%	71.1%	73.6%	75.1%	73.2%	75.4%	74 8%	75.0%	72 3%
(17)		CT	%	2.0%	1.1%	1 0%	1.1%	1 0%	1.1%	1.2%	1 5%	2.2%	2.0%	2.1%	1.8%
(18)	OTHER 2/														
	QF PURCHASES		%	4.0%	3 9%	4 6%	4.4%	4 5%	1 8%	1.1%	0 0%	0.0%	0.0%	0 0%	0.0%
	RENEWABLES OTHER		%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
	RENEWABLES MSW		%	1.5%	1 5%	2 2%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%
	RENEWABLES BIOMASS		%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
	RENEWABLES SOLAR		%	0.5%	1 6%	2 9%	4.8%	6 9%	8 8%	9.2%	9 9%	10 9%	11 2%	11.8%	13.7%
	IMPORT FROM OUT OF STATE		%	2.9%	2 3%	0 3%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
	EXPORT TO OUT OF STATE		%	0.0%	0 0%	0 0%	0.0%	0 0%	0 0%	0.0%	0 0%	0.0%	0.0%	0 0%	0.0%
(19)	NET ENERGY FOR LOAD		%	100.0%	100 0%	100 0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%	100.0%	100 0%	100.0%

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.

2/ NET ENERGY PURCHASED (+) OR SOLD (-).

FORECASTING METHODS AND PROCEDURES

INTRODUCTION

Accurate forecasts of long-range electric energy consumption, customer growth, and peak demand are essential elements in electric utility planning. Accurate projections of a utility's future load growth require a forecasting methodology with the ability to account for a variety of factors influencing electric consumption over the planning horizon. DEF's forecasting framework utilizes a set of econometric models as well as the Itron statistically adjusted end-use (SAE) approach to achieve this end. This section will describe the underlying methodology of the customer, energy, and peak demand forecasts including the principal assumptions incorporated within each. Also included is a description of how DSM impacts the forecast and a review of DEF's DSM programs.

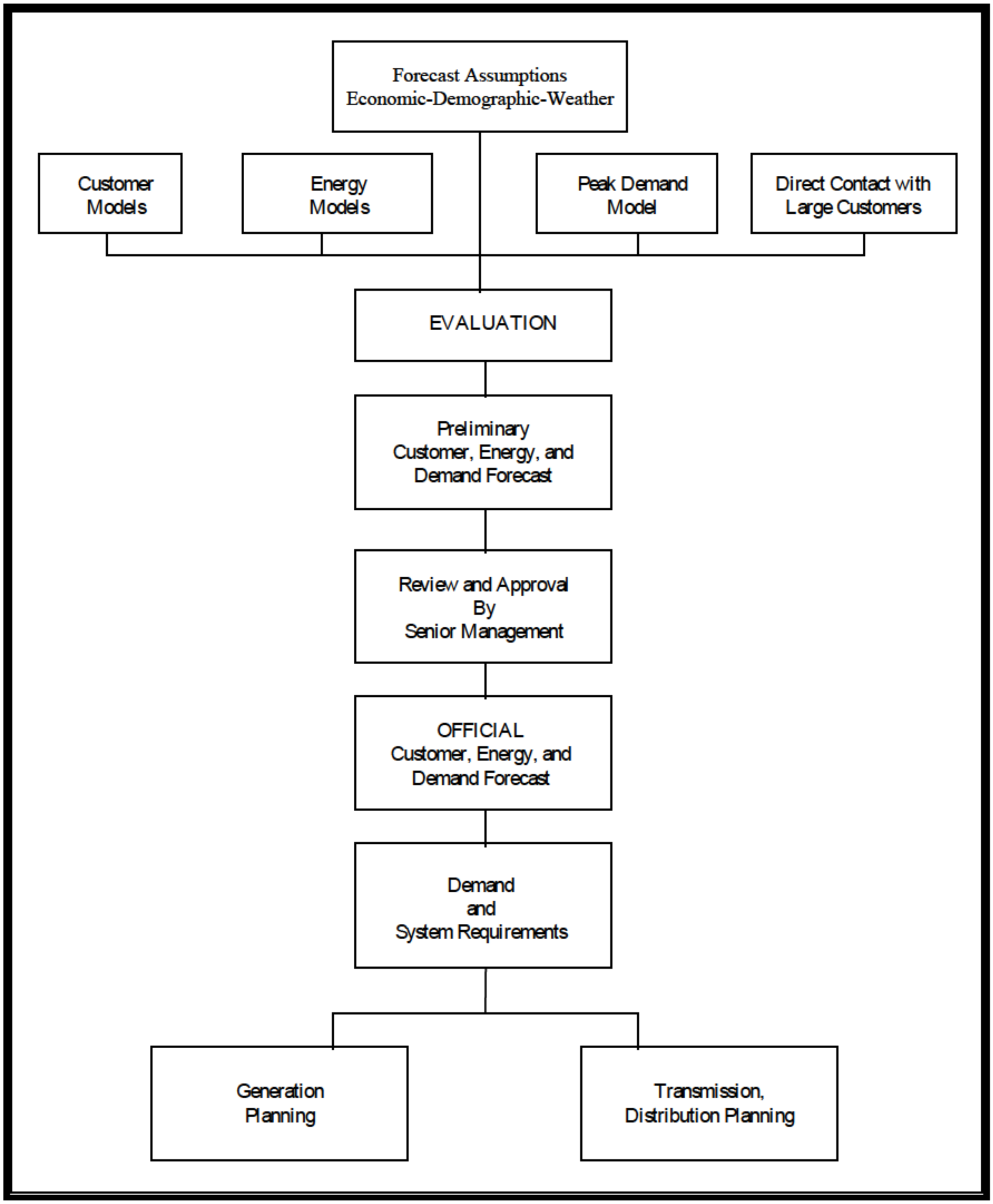
Figure 2.1, entitled "Customer, Energy and Demand Forecast," gives a general description of DEF's forecasting process. Highlighted in the diagram is a disaggregated modeling approach that blends the impacts of average class usage, as well as customer growth, based on a specific set of assumptions for each class. Also accounted for is some direct contact with large customers. These inputs provide the tools needed to frame the most likely scenario of the Company's future demand.

FORECAST ASSUMPTIONS

The first step in any forecasting effort is the development of assumptions upon which the forecast is based. A collaborative internal Company effort develops these assumptions including the research efforts of several external sources. These assumptions specify major factors that influence the level of customers, energy sales, or peak demand over the forecast horizon. The following set of assumptions forms the basis for the forecast presented in this document.

FIGURE 2.1

Customer, Energy, and Demand Forecast



GENERAL ASSUMPTIONS

1. Normal weather conditions for energy sales are assumed over the forecast horizon using a sales-weighted 30-year average of conditions at the St Petersburg, Orlando, and Tallahassee weather stations. For billed kilowatt-hour (kWh) sales projections, the normal weather calculation begins with a historical 30-year average of calendar and billing cycle weighted monthly heating and cooling degree-days (HDD and CDD). The expected consumption period read dates for each projected billing cycle determines the exact historical dates for developing the 30-year average weather condition each month. Each class displays different weather-sensitive base temperatures from which degree day (DD) values begin to accumulate. Seasonal and monthly peak demand projections are based on a 30-year historical average of system-weighted degree days using the "Itron Rank-Sort Normal" approach which takes annual weather extremes into account as well as the date and hour of occurrence.

2. DEF customer forecast is based upon historical population estimates and produced by the BEBR at the University of Florida (as published in "Florida Population Studies", Bulletin No. 186 April 2020) and provides the basis for the population forecast used in the development of the DEF customer forecast. The BEBR's historical estimations of county Household data are just as useful to the customer forecast as well. National and Florida economic projections produced by Moody's Analytics in their July 2020 forecast, along with EIA 2020 surveys of residential appliance saturation and average appliance efficiency levels provided the basis for development of the DEF energy forecast.

3. Within the DEF service area, the phosphate mining industry is the dominant sector in the industrial sales class. Three major customers accounted for 29.5% of the industrial class MWh sales in 2020, significantly higher than the 24.4% in 2019. These energy-intensive "crop nutrient" producers mine and process phosphate-based fertilizer products for the global marketplace. The supply and demand (price) for their products are dictated by global conditions that include, but are not limited to, foreign competition, national/international agricultural industry conditions, exchange-rate fluctuations, international trade pacts and U.S. environmental regulations. The market price of the raw mined commodity often dictates production levels. Load and energy consumption at the DEF-served mining or chemical processing sites depend heavily on plant

operations, which are heavily influenced by these global as well as the local conditions, including environmental regulations. Going forward, global currency fluctuations and global stockpiles of farm commodities will determine the demand for fertilizers. The DEF forecast called for this rebound in electric consumption from this sector as a major producer successfully restructured its supply chain. The threat to the U.S. farm sector from U.S.-China trade policies appears to have been reduced. This forecast does not incorporate any trade policy impact in the next ten years. The forecast does account for one customer's intention to increase load in phases between the years 2021 and 2022. Any increase in self-service generation will act to reduce energy requirements from DEF. An upside risk to this projection lies in the price of energy, especially low natural gas price, which is a major cost in mining and producing phosphoric fertilizers. A new large manufacturer, once planned to start-up in mid-2020, has been delayed and is currently coming up to expected levels of operation. It is projected to boost DEF industrial load by a noticeable amount.

4. DEF has supplied load and energy service to wholesale customers on a "full" and "partial" requirement basis for many years. Beginning on January 1, 2021, all Full requirements customer demand and energy contracts have terminated and will no longer receive their energy requirements from DEF. Partial requirements (PR) contracted load is assumed to reflect the current contractual obligations reflected by the nature of the stratified load being requested, plus their ability to receive dispatched energy from power marketers any time it is more economical for them to do so. Contracts for PR service included in this forecast are with the Reedy Creek Improvement District (RCID) and Seminole Electric Cooperative, Inc. (SECI). All contracts are projected to expire in the specific year designated in the contract.

5. This forecast assumes that DEF will successfully renew all future franchise agreements.

6. This forecast incorporates demand and energy reductions expected to be realized through currently FPSC approved DSM goals as stated in Docket No. 20190018-EG.

7. This forecast reflects impacts from both Plug-in Hybrid Electric Vehicle (PHEV) and behind the meter customer-owned renewable generation which is mostly solar photovoltaic (PV)

installations on energy and peak demand. PHEV customer penetration levels, which are expected to be a small share of the total DEF service area vehicle stock over the planning horizon, incorporates an EPRI Model view that includes gasoline price expectations. DEF customer PV penetration levels are expected to continue to grow over the planning horizon and the forecast incorporates a view on equipment and electric price impacts on customer use.

8. Expected energy and demand reductions from customer-owned self-service cogeneration facilities are also included in this forecast. DEF will supply the supplemental load of self-service cogeneration customers. While DEF offers "standby" service to all cogeneration customers, the forecast does not assume an unplanned need for power at time of peak.

   This forecast assumes that the regulatory environment and the obligation to serve our retail customers will continue throughout the forecast horizon. Regarding wholesale customers, the forecast does not plan for generation resources unless a long-term contract is in place.

9. DEF incorporates a price of carbon into its planning assumptions, beginning in 2025. This price is incorporated into the resource planning and dispatch modeling assumptions to act as a proxy for the effects of imposed carbon emissions restrictions that the company believes will be part of future regulation. Because these have the effect of raising the future price of electricity, there is a small reduction in the growth of future energy use.

ECONOMIC ASSUMPTIONS

The economic outlook for this forecast was developed in the summer of 2020 following the first surge of the COVID-19 pandemic. The national economy had sunk to depths not experienced since the Great Depression as approximately 25 million jobs were lost in a matter of months, although signs of recovery had begun. There was great uncertainty at the time around how long the pandemic would last. There were no vaccines available at the time of this forecast development, but hopes were high for one soon. The Federal Reserve Bank had expressed a strong will to "do whatever it takes" to increase the money supply and hold interest rates down. This helped businesses borrow cheaply and stay afloat as revenues disappeared. The Federal government had passed the Coronavirus Aid, Relief and Economic Security (CARES) Act in late March 2020 to help stimulate the economy and stave off further decline. Based upon economic reports since, it did help bring back about two-thirds of the jobs lost and restrict renter evictions and mortgage foreclosures. Still, most economists and government policymakers were "flying blind" and there was talk of further stimulus being required by late 2020.

It is with this background that the DEF forecast was developed and the environment in which the Moody's Analytics July 2020 U.S. forecast and Florida forecast was developed. Major assumptions included return to "normalcy" beginning in mid-2021 but specific industries that operate with "close proximity" situations like theme parks, airline flights and movie theaters could see normal level of operations pushed out to 2022 or beyond. Also, commercial real estate could experience a permanent impact where demand for office floorspace may no longer grow as rapidly.

A silver lining to the forecast in the short to medium term involves the Federal Reserve actions which resulted in significant declines in mortgage rates. This has resulted in a boost in home construction, home sales and home prices. Secondly, low interest rates helped boost stock equity prices, helping boost shareholder wealth. It should be noted that both the housing sector and shareholder benefits from current policies are not expected to last forever.

Although preparation for this forecast was done at a time of great uncertainty, the projection calling for a return to normal by Mid-2021 continues to appear reasonable. The Congressional Budget Office projected that the U.S. economy will expand more rapidly in 2021 than the Moody's projection in July, but expects that it will take several years for the number of employed workers to return to its pre-pandemic peak

The recent past has provided a fairly long period of stable energy prices, mainly due to adequate supply and the success of fracking technology and the lack of friction amongst OPEC countries. This situation is largely expected to continue through the forecast period. The Load Forecast has assumed for a few years that a cost of carbon emissions may be imposed upon electric utilities through federal regulation beginning in the 2025 timeframe. Although the form of such regulation is unknown, it is modeled as a fee based on the level of carbon emissions projected from the operation of the generation fleet of the company. These costs are reflected in the resulting dispatch of the generating portfolio and are assumed to increase electric prices.

The Florida economy was particularly crushed by the pandemic due to is large Entertainment & Hospitality sector. Tourism plummeted as did tourist tax collections. The State relies on tourism for a greater share of its revenues than most other States. This means State budgets could be significantly reduced resulting in less investment in State & Local economies. Government stimulus was designed to help many small businesses although not all were expected to survive. According to the Florida Chief Economist, Amy Baker, Florida tourism levels probably will not surpass pre-pandemic numbers "for at least a year after a COVID-19 vaccine is available to the public…it will be the longest-recovering sector that we have."

Throughout the ten-year forecast horizon, risks and uncertainties are always recognized and handled on a "highest probability of outcome" basis. General rules of economic theory, namely, supply and demand equilibrium are maintained in the long run. This notion is applied to energy/commodity prices, currency levels, the housing market, wage rates, birth rates, inflation and interest rates. Uncertainty surrounding specific weather anomalies (hurricanes or earthquakes), international crises, such as wars or terrorist acts, or future pandemic events, are not explicitly designed into this projection. Thus, any situations of this variety will result in a deviation from this forecast.

FORECAST METHODOLOGY

The DEF forecast of customers, energy sales, and peak demand applies both an econometric and end-use methodology. The residential and commercial energy projections incorporate Itron's SAE approach while other classes use customer-class specific econometric models. These models are expressly designed to capture class-specific variation over time. Peak demand models are projected on a disaggregated basis as well. This allows for appropriate handling of individual assumptions in the areas of wholesale contracts, demand response, interruptible service and changes in self-service generation capacity.

ENERGY AND CUSTOMER FORECAST

In the retail jurisdiction, customer class models have been specified showing a historical relationship to weather and economic/demographic indicators using monthly data for sales models and customer models. Sales are regressed against "driver" variables that best explain monthly fluctuations over the historical sample period. Forecasts of these input variables are either derived internally or come from a review of the latest projections made by several independent forecasting concerns. The external sources of data include Moody's Analytics and the University of Florida's BEBR. Internal company forecasts are used for projections of electricity price, weather conditions, the length of the billing month and rates of customer owned renewable and electric vehicle adoption. The incorporation of residential and commercial "end-use" energy has been modeled as well. Surveys of residential appliance saturation and average efficiency performed by the company's Market Research department and the Energy Information Agency (EIA), along with trended projections of both by Itron capture a significant piece of the changing future environment for electric energy consumption. Specific sectors are modeled as follows:

Residential Sector

Residential kWh usage per customer is modeled using the SAE framework. This approach explicitly introduces trends in appliance saturation and efficiency, dwelling size and thermal efficiency. It allows for an easier explanation of usage levels and changes in weather-sensitivity over time. The "bundling" of 19 residential appliances into "heating", "cooling" and "other" end uses form the basis of equipment-oriented drivers that interact with typical exogenous factors such as real median household income, average household size, cooling degree-days, heating degree-days, the real price of electricity to the residential class and the average number of billing days in each sales month. This structure captures significant variation in residential usage caused by changing appliance efficiency and saturation levels, economic cycles, weather fluctuations, electric price, and sales month duration. Projections of kWh usage per customer combined with the customer forecast provide the forecast of total residential energy sales. The residential customer forecast is developed by correlating monthly residential customers with county level population projections for counties in which DEF serves residential customers are provided by the BEBR.

Commercial Sector

Commercial MWh energy sales are forecast based on commercial sector (non-agricultural, non-manufacturing and non-governmental) employment, the real price of electricity to the commercial class, the average number of billing days in each sales month and heating and cooling degree-days. As in the residential sector, these variables are interacted with the commercial end-use equipment (listed below) after trends in equipment efficiency and saturation rates have been projected.

- Heating
- Cooling
- Ventilation
- Water heating
- Cooking
- Refrigeration
- Outdoor Lighting
- Indoor Lighting
- Office Equipment (PCs)
- Miscellaneous

The SAE model contains indices that are based on end-use energy intensity projections developed from EIA's commercial end-use forecast database. Commercial energy intensity is measured in terms of end-use energy use per square foot. End-use energy intensity projections are based on end-use efficiency and saturation estimates that are in turn driven by assumptions in available technology and costs, energy prices, and economic conditions. Energy intensities are calculated from the EIA's Annual Energy Outlook (AEO) commercial database. End-use intensity projections are derived for eleven building types. The energy intensity (EI) is derived by dividing end-use electricity consumption projections by square footage:

$$EI_{bet} = Energy_{bet} / sqft_{bt}$$

Where:

$Energy_{bet}$ = energy consumption for building type b, end-use e, year t

$Sqft_{bt}$ = square footage for building type b in year t

Commercial customers are modeled using the projected level of residential customers.

Industrial Sector

Energy sales to this sector are separated into two sub-sectors. A significant portion of industrial energy use is consumed by the phosphate mining industry. Because this one industry is such a large share of the total industrial class, it is separated and modeled apart from the rest of the class. The term "non-phosphate industrial" is used to refer to those customers who comprise the remaining portion of total industrial class sales. Both groups are impacted significantly by changes in economic activity. However, adequately explaining sales levels requires separate explanatory variables. Non-phosphate industrial energy sales are modeled using Florida manufacturing employment interacted with the Florida industrial production index, and the average number of sales month billing days.

The industrial phosphate mining industry is modeled using customer-specific information with respect to expected market conditions. Since this sub-sector is comprised of only three customers, the forecast is dependent upon information received from direct customer contact. DEF Large Account Management employees provide specific phosphate customer information regarding customer production schedules, inventory levels, area mine-out and start-up predictions, and changes in self-service generation or energy supply situations over the forecast horizon. These Florida mining companies compete globally into a global market where farming conditions dictate the need for “crop nutrients”. The projection of industrial accounts is not expected to decline as rapidly as it has for years. The pace of “off-shoring” manufacturing jobs is expected to decline from past levels. Both the Trump and Biden administrations have favored the rebuilding of the American manufacturing sector, with the Biden administration adding a focus on carbon reduction. Secondly, the rapid increase in Florida population should recalibrate Florida’s competitiveness in “location analysis” studies performed by industry when determining site selection for new operations.

Street Lighting

Electricity sales to the street and highway lighting class have now declined for several years. A continued decline is expected as improvements in lighting efficiency are projected. The number of accounts, which has dropped by more than one-third since 1995 due to most transferring to public authority ownership, is expected to decline further before leveling off in the intermediate term. A simple time-trend was used to project energy consumption and customer growth in this class.

Public Authorities

Energy sales to public authorities (SPA), comprised of federal, state and local government operated services, is also projected to grow within the DEF's service area. The level of government services, and thus energy, can be tied to the population base, as well as the amount of tax revenue collected to pay for these services. Factors affecting population growth will affect the need for additional governmental services (i.e., public schools, city services, etc.) thereby increasing SPA energy consumption. Government employment has been determined to be the best indicator of the level of government services provided. This variable, along with cooling degree-days and the sales month billing days, results in a significant level of explained variation over the historical sample period. Adjustments are also included in this model to account for the large change in school-related energy use throughout the year. The SPA customer forecast is projected linearly as a function of a time-trend. Recent budget issues have also had an impact on the near-term pace of growth.

Sales for Resale Sector

The Sales for Resale sector encompasses all firm sales to other electric power entities. This includes sales to other utilities (municipal or investor-owned) as well as power agencies (rural electric authority or municipal).

SECI is a wholesale, or sales for resale, customer of DEF that contracts for both seasonal and stratified loads over the forecast horizon. The municipal sales for resale class includes a number of customers, divergent not only in scope of service (i.e., full or partial requirement), but also in composition of ultimate consumers. Each customer is modeled separately in order to accurately reflect its individual profile. Three customers in this class, Chattahoochee, Mt. Dora, and Williston, are municipalities whose full energy requirements were supplied by DEF. All three have decided to terminate their contracts for requirements service with DEF on 12/31/2020. DEF serves partial requirement service (PR) to other load serving customers such as Reedy Creek Improvement District. In each case, these customers contract with DEF for a specific level and type of stratified capacity (MW) needed to provide their particular electrical system with an appropriate level of reliability. The energy forecast for each contract is derived using information provided by the purchaser who better understands their needs. Electric energy growth and competitive market prices will dictate the amount of wholesale demand and energy throughout the forecast horizon.

PEAK DEMAND FORECAST

The forecast of peak demand also employs a disaggregated econometric methodology. For seasonal (winter and summer) peak demands, as well as each month of the year, DEF's coincident system peak is separated into five major components. These components consist of total retail load, interruptible and curtailable tariff non-firm load, conservation and demand response program capability, wholesale demand, and company use demand.

Total retail load refers to projections of DEF retail monthly net peak demand before any activation of DEF's General Load Reduction Plan. The historical values of this series are constructed to show the size of DEF's retail net peak demand assuming no utility activated load control had ever taken place. The value of constructing such a "clean" series enables the forecaster to observe and correlate the underlying trend in retail peak demand to retail customer levels and coincident weather conditions at the time of the peak and the amounts of Base-Heating-Cooling load estimated by the monthly Itron models without the impacts of year-to-year variation in utility-sponsored DR programs. Monthly peaks are projected using the Itron SAE generated use patterns for both weather sensitive (cooling & heating) appliances and base load appliances calculated by class in the energy models. Daily and hourly models of applying DEF class-of-business load research survey data lead to class and total retail hourly load profiles when a 30-year normal weather template replaces actual weather. The projections of retail peak are the result of a monthly model driven by the summation of class base, heating and cooling energy interpolated 30-year normal weather pattern-driven load profile. The projection for the months of January (winter) and August (summer) are typically when the seasonal peaks occur. Energy conservation and direct load control estimates consistent with DEF's DSM goals that have been established by the FPSC are applied to the MW forecast. Projections of dispatchable and cumulative non-dispatchable DSM impacts are subtracted from the projection of potential firm retail demand resulting in a projected series of firm retail monthly peak demand figures. The Interruptible and Curtailable service (IS and CS) tariff load projection is developed from historic monthly trends, as well as the incorporation of specific projected information obtained from DEF's large industrial accounts on these tariffs by account executives. Developing this piece of the demand forecast allows for appropriate firm retail demand results in the total retail coincident peak demand projection.

Sales for Resale demand projections represent load supplied by DEF to other electric suppliers such as SECI, RCID, and other electric transmission and distribution entities. For Partial Requirement demand projections, contracted MW levels dictate the level of seasonal demands.

DEF "company use" at the time of system peak is estimated using load research metering studies similar to potential firm retail. It is assumed to remain stable over the forecast horizon as it has historically.

Each of the peak demand components described above is a positive value except for the DSM program MW impacts and IS and CS load. These impacts represent a reduction in peak demand and are assigned a negative value. Total system firm peak demand is then calculated as the arithmetic sum of the five components.

HIGH AND LOW SCENARIOS

DEF has developed high and low scenarios around the base case energy sales and peak demand projections. Both scenarios incorporate historical variation in weather and economic conditions as well as service area population and household growth. Historical variation for economic driver variables selected in the base case energy sales models using the Moody's S1 & S3 (High/Low) scenarios that estimate a 90/10 probability of outcome. High and low weather variables were determined for the energy and peak weather variables (HDDs, CDDs, and monthly peak DDs) using actual 30-year weather conditions. Each weather variable used in the modeling process is ranked monthly from "high-to-low" degree days. The high (hottest or coldest) one-third of each variable is averaged and becomes a normal "High Case" weather condition. Similarly, the "mildest" one-third of each weather variable's 30 observations are averaged and become the normal "Low Case" weather condition. A review of twenty-year historical variation of DEF 29-county population growth with a 75/25 probability of high and low customer projections out ten years resulted in the final area of variability around the Load Forecast.

This procedure captures the most influential variables around energy sales and peak demand by estimating high and low cases for economics, demographics and weather conditions.

CONSERVATION

Pursuant to the provisions of Florida Statute Section 366.82 (FEECA Statute), which requires the FPSC to adopt goals for the FEECA utilities to increase energy efficiency and increase the development of demand-side renewable energy systems and directs the FPSC to review those goals every five years, in 2019, the FPSC conducted its statutorily required review and determined that it was in the public interest to continue with the goals for the 2020-2024 time period established in the 2014 Goals setting proceeding and directed the utilities to file Program Plans designed to achieve these goals (Order No. PSC-2019-00509-FOF). In August 2020, DEF submitted a Plan designed to achieve the 2020-2024 goals which was approved by the Commission (Order No. PSC-2020-0274-PAA-EG). The programs included in this Plan are subject to periodic monitoring and evaluation to ensure that all demand-side resources are acquired in a cost-effective manner and that the program savings are durable. Tables 2.1 and 2.2 reflect the annual Program achievements for the residential and commercial sector compared to the Commission established goals for the 2020-2024 time period.

RESIDENTIAL CONSERVATION PROGRAMS

TABLE 2.1

Residential DSM MW and GWH Savings

RESIDENTIAL									
	WINTER PEAK MW REDUCTION			SUMMER PEAK MW REDUCTION			GWH ENERGY REDUCTION		
YEAR	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE
2020	31	32	-5%	18	16	13%	35	9	277%
2021		28			14			6	
2022		25			12			4	
2023		22			11			2	
2024		21			11			1	

The following provides a list of DEF's Residential DSM programs as of December 31, 2020, along with a brief overview of each program:

Home Energy Check – This is DEF's home energy audit program as required by Rule 25-17.003(3)(b), F.A.C. DEF offers a variety of options to customers for home energy audits including walk-through audits, phone assisted audits, and web enabled on-line audits. At the completion of the audit, DEF also provides kits that contain energy saving measures that may be easily installed by the customer.

Residential Incentive Program – This program provides incentives on a variety of cost-effective measures designed to provide energy savings. DEF expects to provide incentives to customers for the installation of approximately 75,000 energy saving measures over the 2020-2024 time period. These measures primarily include heating and cooling, duct repair, insulation, and energy efficient windows. The measures and incentive levels included in this program have been updated to reflect the impacts of new codes and standards.

Neighborhood Energy Saver – This program is designed to provide energy saving education and assistance to low income customers. This program targets neighborhoods that meet certain income eligibility requirements. DEF plans to install energy saving measures in approximately 5,000 homes annually over the 2020 to 2024 time period. These measures will be installed at no cost to the customer and include air infiltration measures, water heating measures, lighting, insulation, duct repair, and heat pump and air conditioning tune-ups. This program was suspended in 2020 due to COVID-19 concerns. However, DEF is currently working to develop a modified version of this program to deploy to customers in 2021.

Low Income Weatherization Assistance Program – DEF partners with local agencies to provide funding for energy efficiency and weatherization measures to low income customers through this program. DEF expects to provide assistance to approximately 500 customers annually through this program.

EnergyWise – This is a voluntary residential demand response program that provides monthly bill credits to customers who allow DEF to reduce peak demand by controlling service to selected electric equipment through various devices and communication options installed on the customer's premises. These interruptions are at DEF's option, during specified time periods, and coincident with hours of peak demand. Customers must have a minimum average monthly usage of 600 kWh to be eligible to participate in this program.

COMMERCIAL/INDUSTRIAL CONSERVATION PROGRAMS

TABLE 2.2

Commercial/Industrial DSM MW and GWH Savings

COMMERCIAL / INDUSTRIAL									
	WINTER PEAK MW REDUCTION			SUMMER PEAK MW REDUCTION			GWH ENERGY REDUCTION		
YEAR	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE	TOTAL ACHIEVED	COMMISSION APPROVED GOAL	% VARIANCE
2020	24	5	354%	46	8	460%	40	6	582%
2021		5			7			4	
2022		5			6			2	
2023		5			6			1	
2024		5			5			1	

The following provides a list of DEF's Commercial DSM programs as of December 31, 2020, along with a brief overview of each program:

Business Energy Check – This is a commercial energy audit program that provides commercial customers with an analysis of their energy usage and information about energy-saving practices and cost-effective measures that they can implement at their facilities.

Better Business – This program provides incentives to commercial customers on a variety of cost-effective energy efficiency measures. These measures are primarily comprised of measures that reduce cooling and heating load.

Florida Custom Incentive – The objective of this program is to encourage customers to make capital investments for the installation of energy efficiency measures which reduce energy and peak demand. This program provides incentives for customized energy efficiency projects and measures that are cost effective but are not otherwise included in DEF's prescriptive commercial programs.

Interruptible Service – This program is available to non-residential customers with a minimum billing demand of 500 KW or more who are willing to have their power interrupted. DEF has remote control access to the switch providing power to the customer's equipment. Customers participating in the Interruptible Service program receive a monthly interruptible demand credit based on their bills.

Curtailable Service - This program is an indirect load control program that reduces DEF's energy demand at times of capacity shortage during peak or emergency conditions.

Standby Generation - This program is a demand control program that reduces DEF's demand based upon the control of the customer's back-up generator. The program is a voluntary program available to all commercial and industrial customers who have on-site stand-by generation capacity of at least 50 KW and are willing to reduce their DEF demand when deemed necessary.

OTHER DSM PROGRAMS

The following provides an overview of other DSM programs:

Technology Development – This program is used to fund research and development of new energy efficiency and demand response technologies. This program provides the opportunity to investigate and test new technologies and determine their usefulness and feasibility in the support energy efficiency and demand response programs.

Qualifying Facilities – This program analyzes, forecasts, facilitates, and administers the potential and actual power purchases from Qualifying Facilities (QFs) and the state jurisdictional QF or distributed generator interconnections. The program supports meetings with interested parties or potential QFs, including cogeneration and small power production facilities including renewables interested in providing renewable capacity or energy deliveries within our service territory. Project, interconnection, and avoided cost discussions with renewable and combined heat and power developers who are also exploring distributed generation options continue to remain steady. Most of the interest is coming from companies utilizing solar photovoltaic technology as the price of photovoltaic panels has decreased over time. The cost of this technology continues to decrease, and subsidies remain in place. As of December 31st, 2020, DEF had 60 active solar projects totaling over 4,700 MWs in its FERC jurisdictional interconnection queue and 12 of those projects included DEF as the project developer. As the technologies advance and the market evolves, the Company's policies will continue to be refined and compliant.

CHAPTER 3

FORECAST OF FACILITIES REQUIREMENTS

CHAPTER 3

FORECAST OF FACILITIES REQUIREMENTS

RESOURCE PLANNING FORECAST

OVERVIEW OF CURRENT FORECAST

Supply-Side Resources

As of December 31, 2020, DEF had a summer total capacity resource of 11,861 MW (see Table 3.1). This capacity resource includes fossil steam generators (2,435 MW), combined cycle plants (5,221 MW), combustion turbines (2,041 MW), solar power plants (194 MW), utility purchased power (424 MW), independent power purchases (1,134 MW), and non-utility purchased power (412 MW). Table 3.2 presents DEF's firm capacity contracts with renewable and cogeneration Facilities.

Demand-Side Programs

In August 2020, the FPSC approved demand-side management programs designed to meet the demand side management goals established by the Commission in Order PSC-2019-00509-FOF. Total DSM resources are presented in Schedules 3.1 and 3.2 of Chapter 2. These programs include Non-Dispatchable DSM, Interruptible Load, and Dispatchable Load Control resources.

Capacity and Demand Forecast

DEF's forecasts of capacity and demand for the projected summer and winter peaks can been found in Schedules 7.1 and 7.2, respectively. Demand forecasts shown in these schedules are based on Schedules 3.1.1 and 3.2.1, the base summer and winter forecasts. DEF's forecasts of capacity and demand are based on serving expected growth in retail requirements in its regulated service area and meeting commitments to wholesale power customers who have entered into supply contracts with DEF. In its planning process, DEF balances its supply plan for the needs of retail and wholesale customers and endeavors to ensure that cost-effective resources are available to meet the needs across the customer base.

Base Expansion Plan

DEF's planned supply resource additions and changes are shown in Schedule 8 and are referred to as DEF's Base Expansion Plan. This plan includes a net addition of over 2,000 MW of solar PV generation with an expected equivalent summer firm capacity contribution of approximately 820 MW and 429 MW of new natural gas fired generation consisting of two planned combustion turbine units, one added in year 2027 and another in year 2029, at undesignated sites as well as the incorporation of the full firm capacity of the Osprey Energy Center. DEF continues to seek market supply-side resource alternatives to enhance DEF's resource plan. DEF recognizes that as solar penetration increases, including both DEF and customer owned PV, the relationship between the solar production and the coincident load peak will change. In this plan, DEF has assigned this DEF owned solar PV generation an equivalent summer capacity value equal to 57% of the nameplate capacity of the planned installations from 2021 to 2024. DEF modeling derives an equivalent summer non-coincident, but on-peak-hour capacity value equal to 25% of the facility's nameplate rating for planned PV installations from 2025 to 2029 and 12.5% for 2030. Additionally, an annual degradation factor of 0.5% has been added to the PV installations. DEF plans to continue to evaluate these assignments over time and may revise this value in future Site Plans based on changes in project designs and the data received from actual operation of these facilities once they are installed. These assignments assume that the projects developed over the period of this plan will be single-axis tracking technology.

On June 19, 2019, EPA issued the Affordable Clean Energy (ACE) Rule to replace the 2015 Clean Power Plan. However, on January 19, 2021, the U.S. Court of Appeals for the District of Columbia issued its opinion vacating the ACE Rule and remanding the rule to EPA. Parties have 45 days to petition for rehearing and the mandate vacating the rule will not take effect until seven days after disposition of any rehearing petition. The decision may also be appealed to the Supreme Court after the mandate has been issued. Once the rule is remanded to EPA, it is uncertain how EPA will address the court's opinion in a new rulemaking. DEF continues to monitor developments around the future of this rule.

Although there continues to be significant uncertainty about the specific form of regulation, DEF continues to expect that more stringent CO_2 emissions limitations in one form or another will be part of the regulatory future and has incorporated a CO_2 emission price forecast as a placeholder for the impacts of such regulation. Duke Energy has set a target at the enterprise level of achieving at least a 50% reduction in CO_2 emissions from a 2005 baseline by 2030 and net-zero emissions by 2050. The carbon price incents changes to the resource and dispatch plans which support achievement of these targets. With the change in administration, DEF expects an increasing likelihood of new power sector regulation or new federal legislation to reduce CO_2 emissions over the next few years. DEF and the Duke Energy enterprise continue to closely monitor these developments and will participate in the development of constructive public policy to support key ratepayer and stakeholder considerations such as community impacts, affordability, reliability and resilience.

DEF continues to modernize its generation resources with the retirement and projected retirements of several of the older units in the fleet, particularly combustion turbines at Bayboro, Debary P2 - P6, Bartow P1 & P3, and University of Florida. Peakers at Avon Park were retired in October 2020. Continued operations of the peaking units at Bayboro were planned through the year 2025. The Debary units P2 - P6, Bartow units P1 & P3, and University of Florida cogeneration unit are planned to retire in 2027. There are many factors which may impact these retirements including environmental regulations and permitting, unit age and maintenance requirements, local operational needs, their relatively small capacity size and system requirement needs.

DEF's Base Expansion Plan projects the need for additional capacity with proposed in-service dates during the ten-year period from 2021 through 2030. The planned capacity additions, together with purchases from Qualifying Facilities (QF), Investor Owned Utilities, and Independent Power Producers help the DEF system meet the energy requirements of its customer base. The capacity needs identified in this plan may be impacted by DEF's ability to extend or replace existing purchase power, cogeneration and QF contracts and to secure new renewable purchased power resources in their respective projected timeframes. The additions in the Base Expansion Plan depend, in part, on projected load growth, and obtaining all necessary state and federal permits under current schedules. Changes in these or other factors could impact DEF's Base Expansion Plan. DEF has examined the high and low load scenarios presented in Schedules 3.1 and 3.2. As discussed in Chapter 2, these scenarios were developed to present and test a range of likely outcomes in peak load and energy demand. DEF found that the Base Expansion Plan was robust under the range of conditions examined. Current planned capacity is sufficient to meet the demand including reserve margin in these cases through 2026 allowing DEF sufficient time to plan additional generation capacity either through power purchase or new generation construction as needed if higher than baseline conditions emerge. If lower than baseline conditions emerge, DEF can defer future generation alternatives.

Status reports and specifications for the planned new generation facilities are included in Schedule 9. The planned transmission lines associated with DEF Bulk Electric System (BES) are shown in Schedule 10.

TABLE 3.1

DUKE ENERGY FLORIDA

TOTAL CAPACITY RESOURCES OF POWER PLANTS AND PURCHASED POWER CONTRACTS

AS OF DECEMBER 31, 2020

PLANTS	SUMMER NET DEPENDABLE CAPABILITY (MW)
Fossil Steam	2,435
Combined Cycle	5,221
Combustion Turbine	2,041
Solar	194
Total Net Dependable Generating Capability	**9,891**
Dependable Purchased Power	1,970
Firm Qualifying Facility Contracts (412 MW)	
Investor Owned Utilities (424 MW)	
Independent Power Producers (1,134 MW)	
TOTAL DEPENDABLE CAPACITY RESOURCES	**11,861**

TABLE 3.2

DUKE ENERGY FLORIDA
FIRM RENEWABLES
AND COGENERATION CONTRACTS

AS OF DECEMBER 31, 2020

Facility Name	Firm Capacity (MW)
Mulberry	115
Orange Cogen (CFR-Biogen)	104
Orlando Cogen	115
Pasco County Resource Recovery	23
Pinellas County Resource Recovery 1	40
Pinellas County Resource Recovery 2	14.8
TOTAL	**411.8**

DUKE ENERGY FLORIDA

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)
	TOTAL INSTALLED CAPACITY	FIRM[a] CAPACITY IMPORT	FIRM CAPACITY EXPORT	QF[b]	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM SUMMER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
2021	9,976	1,468	0	78	11,522	8,592	2,930	34%	0	2,930	34%
2022	10,188	1,468	0	78	11,734	9,092	2,642	29%	0	2,642	29%
2023	10,356	1,468	0	78	11,902	8,757	3,145	36%	0	3,145	36%
2024	10,861	872	0	78	11,810	8,849	2,961	33%	0	2,961	33%
2025	10,856	757	0	0	11,613	8,699	2,914	33%	0	2,914	33%
2026	10,719	653	0	0	11,371	8,695	2,676	31%	0	2,676	31%
2027	10,637	0	0	0	10,637	8,764	1,874	21%	0	1,874	21%
2028	10,609	0	0	0	10,609	8,857	1,752	20%	0	1,752	20%
2029	10,838	0	0	0	10,838	8,930	1,908	21%	0	1,908	21%
2030	10,889	0	0	0	10,889	9,004	1,885	21%	0	1,885	21%

Notes:

a. F RM Capacity Import includes Cogeneration, Utility and Independent Power Producers, and Short Term Purchase Contracts.

b. QF includes Firm Renewables

DUKE ENERGY FLORIDA

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)
	TOTAL INSTALLED CAPACITY	FIRM[a] CAPACITY IMPORT	FIRM CAPACITY EXPORT	QF[b]	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM WINTER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
2020/21	10,897	1,978	0	78	12,953	8,203	4,750	58%	0	4,750	58%
2021/22	10,897	1,554	0	78	12,529	9,382	3,147	34%	0	3,147	34%
2022/23	10,897	1,554	0	78	12,529	9,113	3,416	37%	0	3,416	37%
2023/24	10,897	1,439	0	78	12,414	9,233	3,181	34%	0	3,181	34%
2024/25	11,252	801	0	0	12,053	9,057	2,996	33%	0	2,996	33%
2025/26	11,014	697	0	0	11,711	9,162	2,548	28%	0	2,548	28%
2026/27	11,014	697	0	0	11,711	9,228	2,483	27%	0	2,483	27%
2027/28	10,768	0	0	0	10,768	8,715	2,053	24%	0	2,053	24%
2028/29	10,768	0	0	0	10,768	8,779	1,989	23%	0	1,989	23%
2029/30	11,000	0	0	0	11,000	8,829	2,171	25%	0	2,171	25%

Notes:

a. FIRM Capacity Import includes Cogeneration, Utility and Independent Power Producers, and Short Term Purchase Contracts.

b. QF includes Firm Renewables

DUKE ENERGY FLORIDA

SCHEDULE 8
PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

AS OF JANUARY 1, 2021 THROUGH DECEMBER 31, 2030

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
												FIRM			
								CONST.	COM'L IN-	EXPECTED	GEN. MAX.	NET CAPABILITY			
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		START	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	WINTER		
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	MO. / YR	MO. / YR	MO. / YR	KW	MW	MW	STATUS[a]	NOTES[b]
TWIN RIVERS	1	HAMILTON	PV	SO				06/2020	02/2021		74,900	43	0	P	(1)
SANTA FE	1	COLUMBIA	PV	SO				07/2020	03/2021		74,900	43	0	P	(1)
DUETTE	1	MANATEE	PV	SO				03/2021	11/2021		74,500	42	0	P	(1)
CHARLIE CREEK	1	HARDEE	PV	SO				03/2021	12/2021		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(1)			(2)
FORT GREEN	1	HARDEE	PV	SO				04/2021	01/2022		74,900	43	0	P	(1)
BAY TRAIL	1	CITRUS	PV	SO				03/2021	01/2022		74,900	43	0	P	(1)
SANDY CREEK	1	BAY COUNTY	PV	SO				06/2021	04/2022		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(1)			(2)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(2)			(2)
OSPREY CC	1	POLK	CC	NG	DFO	PL	TK		05/2024			337	355	P	(3)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(3)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2025	12/2025		74,900	19	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2025	12/2025		74,900	19	0	P	(1)
BAYBORO	P1 - P4	PINELLAS	CT	DFO		WA				12/2025		(171)	(238)		
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2026	12/2026		74,900	19	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2026	12/2026		74,900	19	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
DEBARY	P2 - P6	VOLUSIA	CT	DFO		TK				06/2027		(247)	(324)		
BARTOW	P1, P3	PINELLAS	CT	DFO		WA				06/2027		(82)	(105)		
UNKNOWN	P1	UNKNOWN	CT	NG	DFO	PL	TK	01/2025	06/2027		227,500	214	233	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2027	12/2027		74,900	19	0	P	(1)
UNIVERSITY OF FLORIDA	P1	ALACHUA	GT	NG		PL				11/2027		(43)	(50)		
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2028	12/2028		74,900	19	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2029	12/2029		74,900	19	0	P	(1)
UNKNOWN	P2	UNKNOWN	CT	NG	DFO	PL	TK	01/2027	06/2029		227,500	214	233	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(5)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2030	12/2030		74,900	9	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(5)			(2)

a. See page v. for Code Legend of Future Generating Unit Status.
b. NOTES
(1) Planned, Prospective, or Committed project.
(2) Solar capacity degrades by 0.5% every year
(3) Osprey CC Acquisition total capacity is available once Transmission Upgrades are in service, total Summer capacity goes up to 582MW and total Winter capacity goes up to 600MW

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Twin Rivers**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		6/2020	
	b. Commercial in-service date:		2/2021	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~450-550 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~27	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,335.62	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Santa Fe**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		7/2020	
	b. Commercial in-service date:		3/2021	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-650 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,454.07	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Duette**	
(2)	Capacity			
	a. Nameplate (MWac):		74.5	
	b. Summer Firm (MWac):		42.5	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		3/2021	
	b. Commercial in-service date:		11/2021	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,457.35	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**Charlie Creek**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	42.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	3/2021		
	b. Commercial in-service date:	12/2021	(EXPECTED)	
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~550-650 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,307.76	
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)		10.19	
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**Fort Green**	
(2)	Capacity		
	a. Nameplate (MWac):	74.9	
	b. Summer Firm (MWac):	42.7	
	c. Winter Firm (MWac):	-	
(3)	Technology Type:	PHOTOVOLTAIC	
(4)	Anticipated Construction Timing		
	a. Field construction start date:	4/2021	
	b. Commercial in-service date:	01/2022	(EXPECTED)
(5)	Fuel		
	a. Primary fuel:	SOLAR	
	b. Alternate fuel:	N/A	
(6)	Air Pollution Control Strategy:	N/A	
(7)	Cooling Method:	N/A	
(8)	Total Site Area:	~500-600 ACRES	
(9)	Construction Status:	PLANNED	
(10)	Certification Status:		
(11)	Status with Federal Agencies:		
(12)	Projected Unit Performance Data		
	a. Planned Outage Factor (POF):	N/A	%
	b. Forced Outage Factor (FOF):	N/A	%
	c. Equivalent Availability Factor (EAF):	N/A	%
	d. Resulting Capacity Factor (%):	~28	%
	e. Average Net Operating Heat Rate (ANOHR):	N/A	BTU/Kwh
(13)	Projected Unit Financial Data		
	a. Book Life (Years):	30	
	b. Total Installed Cost (In-service year $/Kw):	1,371.67	
	c. Direct Construction Cost ($/Kw ac): ($2021)		
	d. AFUDC Amount ($/Kw):		
	e. Escalation ($/Kw):		
	f. Fixed O&M ($/Kw dc-yr): ($2021)	10.19	
	g. Variable O&M ($/MWh): ($2021)	0.00	
	h. K Factor:	NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Bay Trail**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		3/2021	
	b. Commercial in-service date:		01/2022	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,371.67	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Sandy Creek**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		6/2021	
	b. Commercial in-service date:		4/2022	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~550-650 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,323.42	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2022	
	b. Commercial in-service date:		1/2023	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,272.64	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2022	
	b. Commercial in-service date:		1/2023	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,272.64	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2022	
	b. Commercial in-service date:		1/2023	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,272.64	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2022	
	b. Commercial in-service date:		1/2023	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,272.64	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	42.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	5/2023		
	b. Commercial in-service date:	1/2024		(EXPECTED)
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,221.86	
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)		10.19	
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2023	
	b. Commercial in-service date:		1/2024	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,221.86	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2023	
	b. Commercial in-service date:		1/2024	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,221.86	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		42.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2023	
	b. Commercial in-service date:		1/2024	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~28	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):		1,221.86	
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)	10.19	
	g. Variable O&M ($/MWh):	($2021)	0.00	
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		18.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		4/2025	
	b. Commercial in-service date:		12/2025	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):			N/A %
	b. Forced Outage Factor (FOF):			N/A %
	c. Equivalent Availability Factor (EAF):			N/A %
	d. Resulting Capacity Factor (%):			~29 %
	e. Average Net Operating Heat Rate (ANOHR):			N/A BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):			30
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)		
	g. Variable O&M ($/MWh):	($2021)		0.00
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	18.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	4/2025		
	b. Commercial in-service date:	12/2025		(EXPECTED)
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	18.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	4/2026		
	b. Commercial in-service date:	12/2026	(EXPECTED)	
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	18.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	4/2026		
	b. Commercial in-service date:	12/2026	(EXPECTED)	
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Undesignated CT P1**	
(2)	Capacity			
	a. Summer (MWs):		214	
	b. Winter (MWs):		233	
(3)	Technology Type:		COMBUSTION TURBINE	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		1/2025	
	b. Commercial in-service date:		6/2027	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		NATURAL GAS	
	b. Alternate fuel:		DISTILLATE FUEL OIL	
(6)	Air Pollution Control Strategy:		Dry Low Nox Combustion	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		UNKNOWN	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:		PLANNED	
(11)	Status with Federal Agencies:		PLANNED	
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		3.00	%
	b. Forced Outage Factor (FOF):		2.00	%
	c. Equivalent Availability Factor (EAF):		95.06	%
	d. Resulting Capacity Factor (%):		16.2	%
	e. Average Net Operating Heat Rate (ANOHR):		10,462	BTU/kWh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		35	
	b. Total Installed Cost (In-service year $/kW):		782.1	
	c. Direct Construction Cost ($/kW):	($2021)	707.5	
	d. AFUDC Amount ($/kW):		40.4	
	e. Escalation ($/kW):		34.2	
	f. Fixed O&M ($/kW-yr):	($2021)	1.91	
	g. Variable O&M ($/MWh):	($2021)	7.91	
	h. K Factor:		NO CALCULATION	

NOTES
Total Installed Cost includes gas expansion, transmission interconnection and integration
$/kW values are based on Summer capacity
Fixed O&M cost does not include firm gas transportation costs

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		18.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		4/2027	
	b. Commercial in-service date:		12/2027	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):			N/A %
	b. Forced Outage Factor (FOF):			N/A %
	c. Equivalent Availability Factor (EAF):			N/A %
	d. Resulting Capacity Factor (%):			~29 %
	e. Average Net Operating Heat Rate (ANOHR):			N/A BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):			30
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)		
	g. Variable O&M ($/MWh):	($2021)		0.00
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		18.7	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		4/2028	
	b. Commercial in-service date:		12/2028	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):			N/A %
	b. Forced Outage Factor (FOF):			N/A %
	c. Equivalent Availability Factor (EAF):			N/A %
	d. Resulting Capacity Factor (%):			~29 %
	e. Average Net Operating Heat Rate (ANOHR):			N/A BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):			30
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)		
	g. Variable O&M ($/MWh):	($2021)		0.00
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**Undesignated CT P2**	
(2)	Capacity			
	a. Summer (MWs):		214	
	b. Winter (MWs):		233	
(3)	Technology Type:		COMBUSTION TURBINE	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		1/2027	
	b. Commercial in-service date:		6/2029	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		NATURAL GAS	
	b. Alternate fuel:		DISTILLATE FUEL OIL	
(6)	Air Pollution Control Strategy:		Dry Low Nox Combustion	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		UNKNOWN	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:		PLANNED	
(11)	Status with Federal Agencies:		PLANNED	
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		3.00	%
	b. Forced Outage Factor (FOF):		2.00	%
	c. Equivalent Availability Factor (EAF):		95.06	%
	d. Resulting Capacity Factor (%):		16.2	%
	e. Average Net Operating Heat Rate (ANOHR):		10,462	BTU/kWh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		35	
	b. Total Installed Cost (In-service year $/kW):		796.3	
	c. Direct Construction Cost ($/kW):	($2021)	707.5	
	d. AFUDC Amount ($/kW):		41.1	
	e. Escalation ($/kW):		47.7	
	f. Fixed O&M ($/kW-yr):	($2021)	1.91	
	g. Variable O&M ($/MWh):	($2021)	7.91	
	h. K Factor:		NO CALCULATION	

NOTES
Total Installed Cost includes gas expansion, transmission interconnection and integration
$/kW values are based on Summer capacity
Fixed O&M cost does not include firm gas transportation costs

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	18.7		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	4/2029		
	b. Commercial in-service date:	12/2029	(EXPECTED)	
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	9.4		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	5/2029		
	b. Commercial in-service date:	1/2030		(EXPECTED)
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	9.4		
	c. Winter Firm (MWac):	-		
(3)	Technology Type:	PHOTOVOLTAIC		
(4)	Anticipated Construction Timing			
	a. Field construction start date:	5/2029		
	b. Commercial in-service date:	1/2030	(EXPECTED)	
(5)	Fuel			
	a. Primary fuel:	SOLAR		
	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac): ($2021)			
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:	**TBD**		
(2)	Capacity			
	a. Nameplate (MWac):	74.9		
	b. Summer Firm (MWac):	9.4		
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	b. Commercial in-service date:	1/2030	(EXPECTED)	
(5)	Fuel			
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	b. Alternate fuel:	N/A		
(6)	Air Pollution Control Strategy:	N/A		
(7)	Cooling Method:	N/A		
(8)	Total Site Area:	~500-600 ACRES		
(9)	Construction Status:	PLANNED		
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):		N/A	%
	b. Forced Outage Factor (FOF):		N/A	%
	c. Equivalent Availability Factor (EAF):		N/A	%
	d. Resulting Capacity Factor (%):		~29	%
	e. Average Net Operating Heat Rate (ANOHR):		N/A	BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):		30	
	b. Total Installed Cost (In-service year $/Kw):			
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	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr): ($2021)			
	g. Variable O&M ($/MWh): ($2021)		0.00	
	h. K Factor:	NO CALCULATION		

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		9.4	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		5/2029	
	b. Commercial in-service date:		1/2030	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):			N/A %
	b. Forced Outage Factor (FOF):			N/A %
	c. Equivalent Availability Factor (EAF):			N/A %
	d. Resulting Capacity Factor (%):			~29 %
	e. Average Net Operating Heat Rate (ANOHR):			N/A BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):			30
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)		
	g. Variable O&M ($/MWh):	($2021)		0.00
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 9
STATUS REPORT AND SPECIFICATIONS OF PROPOSED GENERATING FACILITIES
AS OF JANUARY 1, 2021

(1)	Plant Name and Unit Number:		**TBD**	
(2)	Capacity			
	a. Nameplate (MWac):		74.9	
	b. Summer Firm (MWac):		9.4	
	c. Winter Firm (MWac):		-	
(3)	Technology Type:		PHOTOVOLTAIC	
(4)	Anticipated Construction Timing			
	a. Field construction start date:		4/2030	
	b. Commercial in-service date:		12/2030	(EXPECTED)
(5)	Fuel			
	a. Primary fuel:		SOLAR	
	b. Alternate fuel:		N/A	
(6)	Air Pollution Control Strategy:		N/A	
(7)	Cooling Method:		N/A	
(8)	Total Site Area:		~500-600 ACRES	
(9)	Construction Status:		PLANNED	
(10)	Certification Status:			
(11)	Status with Federal Agencies:			
(12)	Projected Unit Performance Data			
	a. Planned Outage Factor (POF):			N/A %
	b. Forced Outage Factor (FOF):			N/A %
	c. Equivalent Availability Factor (EAF):			N/A %
	d. Resulting Capacity Factor (%):			~29 %
	e. Average Net Operating Heat Rate (ANOHR):			N/A BTU/Kwh
(13)	Projected Unit Financial Data			
	a. Book Life (Years):			30
	b. Total Installed Cost (In-service year $/Kw):			
	c. Direct Construction Cost ($/Kw ac):	($2021)		
	d. AFUDC Amount ($/Kw):			
	e. Escalation ($/Kw):			
	f. Fixed O&M ($/Kw dc-yr):	($2021)		
	g. Variable O&M ($/MWh):	($2021)		0.00
	h. K Factor:		NO CALCULATION	

DUKE ENERGY FLORIDA

SCHEDULE 10
STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

OSPREY

(1) POINT OF ORIGIN AND TERMINATION:	Kathleen - Osprey - Haines City East
(2) NUMBER OF LINES:	1
(3) RIGHT-OF-WAY:	New transmission line right-of-way
(4) LINE LENGTH:	50 miles
(5) VOLTAGE:	230 kV
(6) ANTICIPATED CONSTRUCTION TIMING:	6/1/2024
(7) ANTICIPATED CAPITAL INVESTMENT:	$150,000,000
(8) SUBSTATIONS:	Kathleen, Osprey, Haines City East
(9) PARTICIPATION WITH OTHER UTILITIES:	N/A

INTEGRATED RESOURCE PLANNING OVERVIEW

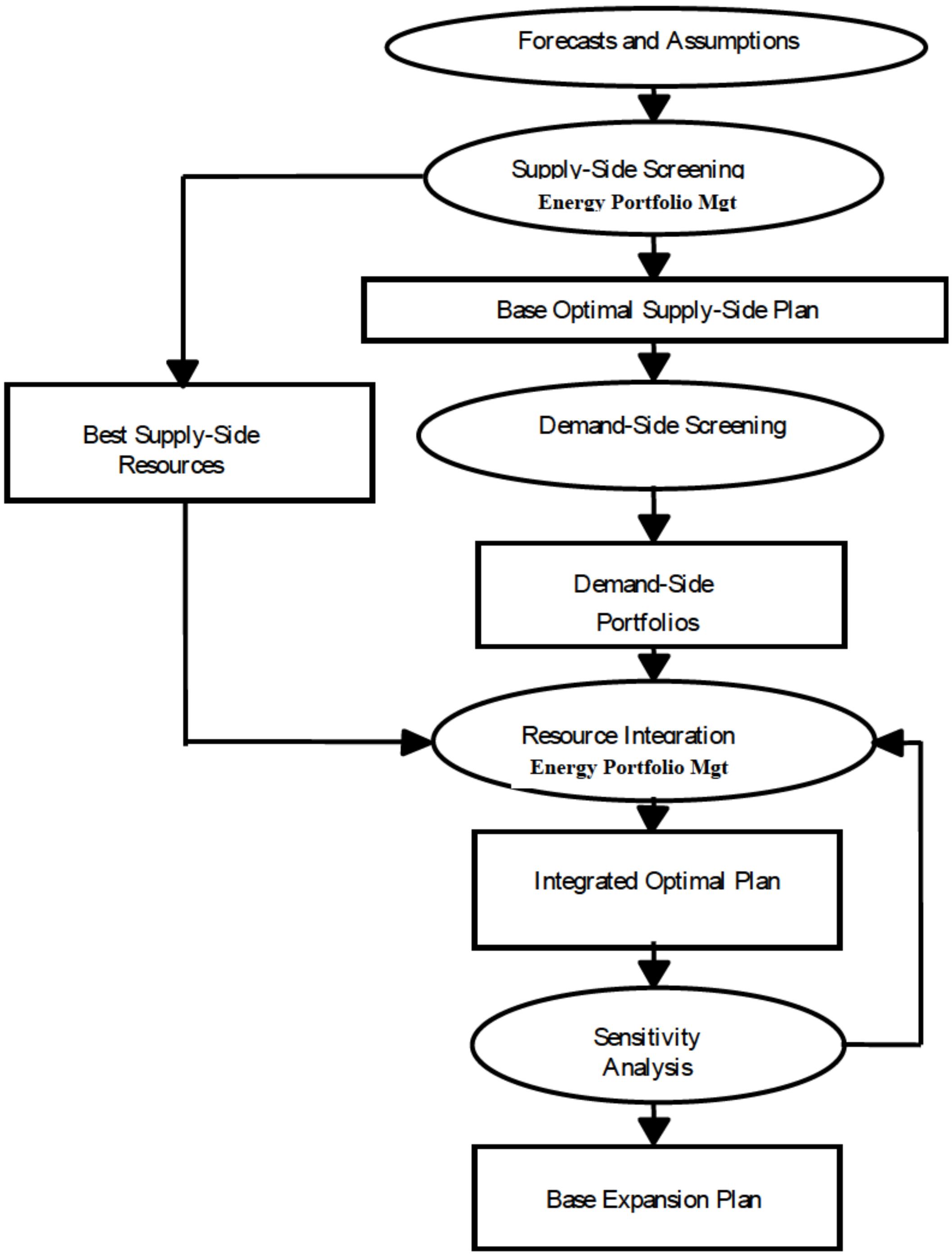
DEF employs an Integrated Resource Planning (IRP) process to determine the most cost-effective mix of supply- and demand-side alternatives that will reliably satisfy our customers' future demand and energy needs. DEF's IRP process incorporates state-of-the-art computer models used to evaluate a wide range of future generation alternatives and cost-effective conservation and dispatchable demand-side management programs on a consistent and integrated basis.

An overview of DEF's IRP Process is shown in Figure 3.1. The process begins with the development of various forecasts, including demand and energy, fuel prices, and economic assumptions. Future supply- and demand-side resource alternatives are identified and extensive cost and operating data are collected to enable these to be modeled in detail. These alternatives are optimized together to determine the most cost-effective plan for DEF to pursue over the next ten years that meets the reliability criteria for our customers. The resulting ten-year plan, the Integrated Optimal Plan, is then tested under different relevant sensitivity scenarios to identify variances, if any, which would warrant reconsideration of any of the base plan assumptions. If the plan is judged robust and works within the corporate framework, it evolves as the Base Expansion Plan. This process is discussed in more detail in the following section titled "The Integrated Resource Planning (IRP) Process".

The IRP provides DEF with substantial guidance in assessing and optimizing the Company's overall resource mix on both the supply side and the demand side. When a decision supporting a significant resource commitment is being developed (e.g., plant construction, power purchase, DSM program implementation), the Company will move forward with directional guidance from the IRP and delve much further into the specific levels of examination required. This more detailed assessment will typically address very specific technical requirements and cost estimates, detailed corporate financial considerations, and the most current dynamics of the business and regulatory environments.

FIGURE 3.1

Integrated Resource Planning (IRP) Process Overview



THE INTEGRATED RESOURCE PLANNING (IRP) PROCESS

Forecasts and Assumptions

The evaluation of possible supply- and demand-side alternatives, and development of the optimal plan, is an integral part of the IRP process. These steps together comprise the integration process that begins with the development of forecasts and collection of input data. Base forecasts that reflect DEF's view of the most likely future scenario are developed. Additional future scenarios along with high and low forecasts may also be developed. Computer models used in the process are brought up to date to reflect this data, along with the latest operating parameters and maintenance schedules for DEF's existing generating units. This establishes a consistent starting point for all further analysis.

Reliability Criteria

Utilities require a margin of generating capacity above the firm demands of their customers in order to provide reliable service. Periodic scheduled outages are required to perform maintenance and inspections of generating plant equipment. At any given time during the year, some capacity may be out of service due to unanticipated equipment failures resulting in forced outages of generation units. Adequate reserve capacity must be available to accommodate these outages and to compensate for higher than projected peak demand due to forecast uncertainty and abnormal weather. In addition, some capacity must be available for operating reserves to maintain the balance between supply and demand on a moment-to-moment basis.

DEF plans its resources in a manner consistent with utility industry planning practices and employs both deterministic and probabilistic reliability criteria in the resource planning process. A Reserve Margin criterion is used as a deterministic measure of DEF's ability to meet its forecasted seasonal peak load with firm capacity. DEF plans its resources to satisfy a minimum 20% Reserve Margin criterion.

Loss of Load Probability (LOLP) is a probabilistic criterion that measures the probability that a company will be unable to meet its load throughout the year. While Reserve Margin considers the peak load and amount of installed resources, LOLP considers generating unit sizes, capacity mix, maintenance scheduling, unit availabilities, and capacity assistance available from other utilities. A standard probabilistic reliability threshold commonly used in the electric utility industry, and the criterion employed by DEF, is a maximum of one day in ten years loss of load probability.

DEF has based its resource planning on the use of dual reliability criteria since the early 1990s, a practice that has been accepted by the FPSC. DEF's resource portfolio is designed to satisfy the 20% Reserve Margin requirement and probabilistic analyses are periodically conducted to ensure that the one day in ten years LOLP criterion is also satisfied. By using both the Reserve Margin and LOLP planning criteria, DEF's resource portfolio is designed to have sufficient capacity available to meet customer peak demand, and to provide reliable generation service under expected load conditions. DEF has found that resource additions are typically triggered to meet the 20% Reserve Margin thresholds before LOLP becomes a factor.

Supply-Side Screening

Potential supply-side resources are screened to determine those that are the most cost-effective. Data used for the screening analysis is compiled from various industry sources and DEF's experiences. The wide range of resource options is pre-screened to set aside those that do not warrant a detailed cost-effectiveness analysis. Typical screening criteria are costs, fuel source, technology maturity, environmental parameters (e.g., possible climate legislation), and overall resource feasibility.

Economic evaluation of generation alternatives is performed using the System Optimizer optimization program, a module of the Energy Portfolio Management software. This optimization tool evaluates revenue requirements for specific resource plans generated from multiple combinations of future resource additions that meet system reliability criteria and other system constraints. All resource plans are then ranked by system revenue requirements.

Demand-Side Screening

Like supply-side resources, the impacts of potential demand-side resources are also factored into the integrated resource plan. The projected MW and MWH impacts for demand-side management resources are based on the energy efficiency measures and load management programs included in DEF's 2015 DSM Plan and meet the goals established by the FPSC in December 2019 (Docket 20190018-EG).

Resource Integration and the Integrated Optimal Plan

The cost-effective generation alternatives can then be optimized together with the demand-side portfolios developed in the screening process to formulate integrated optimal plans. The optimization program considers all possible future combinations of supply- and demand-side alternatives that meet the Company's reliability criteria in each year of the ten-year study period and reports those that provide both flexibility and reasonable revenue requirements (rates) for DEF's customers.

Developing the Base Expansion Plan

The integrated optimized plan that provides the lowest revenue requirements may then be further tested using sensitivity analysis, including High and Low Demand and Energy Forecasts (see Schedules 2 and 3). The economics of the plan may be evaluated under high and low forecast scenarios for fuel, load and financial assumptions, or any other sensitivities which the planner deems relevant. From the sensitivity assessment, the plan that is identified as achieving the best balance of flexibility and cost is then reviewed within the corporate framework to determine how the plan potentially impacts or is impacted by many other factors. If the plan is judged robust under this review, it would then be considered the Base Expansion Plan.

KEY CORPORATE FORECASTS

Load Forecast

The assumptions and methodology used to develop the base case load and energy forecast are described in Chapter 2 of this TYSP. The High and Low forecasts of load and energy were provided to Resource Planning to test the robustness of the base plan.

Fuel Forecast

The base case fuel price forecast was developed using short-term and long-term spot market price projections from industry-recognized sources. The base cost for coal is based on the existing contracts and spot market coal prices and transportation arrangements between DEF and its various suppliers. For the longer term, the prices are based on spot market forecasts reflective of expected market conditions. Oil and natural gas prices are estimated based on current and expected contracts and spot purchase arrangements as well as near-term and long-term market forecasts. Oil and natural gas commodity prices are driven primarily by open market forces of supply and demand. Natural gas firm transportation cost is determined primarily by pipeline tariff rates.

Financial Forecast

The key financial assumptions used in DEF's most recent planning studies were 47% debt and 53% equity capital structure, projected cost of debt of 3.15%, and an equity return of 10.5%. The assumptions resulted on a weighted average cost of capital of 7.05% and an after-tax discount rate of 6.7%.

TEN-YEAR SITE PLAN (TYSP) RESOURCE ADDITIONS

DEF's planned supply resource additions and changes are shown in Schedule 8 and are referred to as DEF's Base Expansion Plan. This plan includes a net addition of over 2,000 MW of solar PV generation with an expected equivalent summer firm capacity contribution of approximately 820 MW and 429 MW of new natural gas fired generation consisting of two planned combustion turbine units, one added in year 2027 and another in year 2029, at undesignated sites as well as the incorporation of the full firm capacity of the Osprey Energy Center. DEF projects the addition of 375 MW of solar PV projects in 2030. In DEF's proposed rate settlement (FPSC Docket No. 20210016-EI), DEF anticipates the retirement of the two remaining coal units at Crystal River (Crystal River units 4 and 5) in 2034. Assuming the implementation of regulations requiring CO_2 emissions reductions by the latter part of the plan period, DEF believes that solar PV will be the most cost-effective generation to replace that energy in the 2034 timeframe. Recognizing the challenges of building and interconnecting solar projects, DEF plans to install the required solar PV over a 5-year period beginning in 2030. As with other elements of the plan, DEF will update these projections as decision dates approach.

DEF continues to seek market supply-side resource alternatives to enhance DEF's resource plan. DEF recognizes that, as solar penetration increases, including both DEF and customer-owned PV, the total dependable solar resource capability is influencing or shifting DEF's reserve planning focus later beyond the on-peak period. DEF is accounting for this planning shift by deriving reduced summer capacity values of planned PV installations starting in 2025. Refer to Page 3-2 for additional solar resource capacity values that are accounting for this change.

DEF's Base Expansion Plan projects the need for additional capacity with proposed in-service dates during the ten-year period from 2021 through 2030. The planned capacity additions, together with purchases from Qualifying Facilities (QF), Investor Owned Utilities, and Independent Power Producers help the DEF system meet the energy requirements of its customer base. The capacity needs identified in this plan may be impacted by DEF's ability to extend or replace existing purchase power and QF contracts and to secure new renewable purchased power resources in their respective projected timeframes. The additions in the Base Expansion Plan depend, in part, on projected load growth, and obtaining all necessary state and federal permits under current schedules. Changes in these or other factors could impact DEF's Base Expansion Plan.

Through its ongoing planning process, DEF will continue to evaluate the timetables for all projected resource additions and assess alternatives for the future considering, among other things, projected load growth, fuel prices, lead times in the construction marketplace, project development timelines for new fuels and technologies, and environmental compliance considerations. The Company will continue to examine the merits of new generation alternatives and adjust its resource plans accordingly to ensure optimal selection of resource additions based on the best information available.

RENEWABLE ENERGY

DEF continues to secure renewable energy from the following facilities listed by fuel type:

Purchases from Municipal Solid Waste Facilities:

Pasco County Resource Recovery (23 MW)
Pinellas County Resource Recovery (54.8 MW)
Dade County Resource Recovery (As Available)
Lake County Resource Recovery (As Available)
Lee County Resource Recovery (As Available)

Purchases from Waste Heat from Exothermic Processes:

PCS Phosphate (As Available)

Citrus World (As Available)

Solar Photovoltaic Facilities

DEF-owned Solar Generation (362.25 MW)

Osceola Solar Facility 3.8 MW

Perry Solar Facility 5.1 MW

Suwannee Solar Facility 8.8 MW

Hamilton Solar Power Plant 74.9 MW

Trenton Solar Power Plant 74.9 MW

Lake Placid Solar Power Plant 45.0 MW

St Petersburg Pier Solar Power Plant 0.35 MW

DeBary Solar Power Plant 74.5 MW

Columbia Solar Power Plant 74.9 MW

Customer-owned renewable generation under DEF's Net Metering Tariff (about 300 MW as of 12/31/20)

At this time, DEF is reviewing the potential for as-available purchased power contracts with third-party solar companies. In-service dates, however, are generally projected to be beyond 2021. As of December 31, 2020, DEF had over 4,700 MW of FERC jurisdictional solar projects in the DEF grid interconnection queue, representing over 60 active projects and 12 of those projects included DEF as the noted developer. While some of those third-party projects anticipate selling to entities other than DEF, the Company continues to have the obligation to purchase any and all uncommitted energy from those certified QFs at as-available energy rates. In total, DEF is reasonably projecting over 2,450 MW of solar PV projects to be installed in the DEF territory over the next ten-year period. However, DEF continues to study and refine this projection. Project ownership proportions may change over time based on specific project economics, development details, renewable energy incentives and other factors.

DEF continues to field inquiries from potential renewable suppliers and explore whether these potential QFs can provide project commitments and reliable capacity or energy consistent with FERC Rules and the FPSC Rules, 25-17.080 through 25-17.310. DEF will continue to submit renewable contracts in compliance with all policies as appropriate.

Depending upon the mix of generators operating at any given time, the purchase of renewable energy may reduce DEF's use of fossil fuels. Renewable energy sources making firm commitments to the company can also defer or eliminate the need to construct more conventional generators. As part of DEF's integrated resource planning process, we are continually evaluating cost-effective alternatives to meet our customer's needs. DEF knows that renewable and distributed energy resources are an important part of Florida's energy future and we are committed to advancing these resources in an affordable and sustainable way. We are encouraged to see solar PV technology continue to reduce in price. As a result of the forecasts around solar PV technology, DEF has incorporated this clean energy source as an increasing supply-side resource in both DEF's near-term and long-term generation plans.

The development, construction, commissioning and initial operation of the solar projects at Perry, Osceola, Suwannee, Hamilton, Lake Placid, Trenton, the now commercial DeBary and Columbia, and under construction Twin Rivers and Santa Fe, Charlie Creek, Duette and Sandy Creek plants have provided DEF with valuable experience in siting, contracting, constructing, operating, and integrating solar photovoltaic technology facilities on the power grid. DEF has worked with the contractors to establish necessary standards for the construction and upkeep of utility grade facilities and to develop standards necessary to ensure the reliability of local distribution systems. DEF is integrating voltage control in the transmission connected solar projects to enhance operational reliability and local transmission resiliency. In addition, DEF is incorporating the ability to place the solar facilities on Automatic Generation Control (AGC). This capability is preparing DEF for future scenarios where there is an excess of generation on the system and a need to utilize the solar resources to balance generation with demand. DEF is utilizing its operational experience and historic data from these solar resources to optimize the daily economic system dispatch, to quantify additional system flexibility needs to counteract the variability of solar generation and investigate potential fuel diversity contributions. Adding these near-term solar facilities is a natural evolution of integrating new generation technology and supplements the solar PV research and demonstration pilots. The arrays for the solar plants that went in service in 2020, DeBary and Columbia, are shown in Figures 3.2 and 3.3 below.

FIGURE 3.2
DeBary Solar Site

FIGURE 3.3
Columbia Solar Site

DEF's current forecast, supporting the Base Expansion Plan includes over 1,100 MW of DEF-owned solar PV to be under development over the next four years and approximately 2,000 MW over the ten-year planning horizon. As with all forecasts included here, the forecast relies heavily on the forward-looking price for this technology, the value rendered by this technology, and considerations to other emerging and conventional cost-effective alternatives, including the use of emerging battery storage technology.

BATTERY ENERGY STORAGE SYSTEMS

DEF's 50MW battery storage pilot program (Battery Storage Pilot) has 6 battery energy storage systems under construction, which are expected to be placed in-service in 2021. These projects may serve a variety of purposes including, but not limited to substation upgrade deferral, distribution line reconducting deferral, power reliability improvement, frequency regulation, Volt/VAR support, backup power, energy capture, and peak load shaving. The projects, max power output, and guaranteed energy storage for a minimum of ten years are provided in Table 3.3. Figure 3.4 provides a picture of construction in progress at the Trenton Battery Energy Storage System site. Going forward, after placing these units in service, DEF will use the data gathered from the operation of these Pilot Program sites to evaluate the opportunities and uses of future DEF battery development.

Table 3.3
DEF Battery Energy Storage Pilot Program Projects Summary

Name	Max Power Output (MW)	Guaranteed Energy Storage (MWh)
Cape San Blas	5.5	14.3
Trenton	11.0	10.1
Micanopy	8.25	11.7
Jennings	5.5	5.5
John Hopkins Middle School	2.475	18.0
Lake Placid	17.275	34.0

FIGURE 3.4
Trenton Battery Energy Storage System

PLAN CONSIDERATIONS

Load Forecast

In general, higher-than-projected load growth would shift the need for new capacity to an earlier year and lower-than-projected load growth would delay the need for new resources. The Company's resource plan provides the flexibility to shift certain resources to earlier or later in-service dates should a significant change in projected customer demand begin to materialize. A specific discussion of DEF's review of load growth forecasts higher and lower than the base forecast can be found in the previous sections.

TRANSMISSION PLANNING

DEF's transmission planning assessment practices are developed to test the ability of the planned system to meet the reliability criteria as outlined in the FERC Form No. 715 filing, and to assure the system meets DEF, Florida Reliability Coordinating Council, Inc. (FRCC), and North American Electric Reliability Corporation (NERC) criteria. This involves the use of load flow and transient stability programs to model various contingency situations that may occur, and in determining if the system response meets the reliability criteria. In general, this involves running simulations for the loss of any single line, generator, or transformer. DEF runs this analysis for contingencies that may occur at system peak and off-peak load levels, under both summer and winter conditions. Additional studies are performed to determine the system response to credible, but less probable criteria. These studies include the loss of multiple generators, transmission lines, or combinations of each (some load loss is permissible under the more severe disturbances). These credible, but less probable scenarios are also evaluated at various load levels, since some of the more severe situations occur at average or minimum load conditions. In particular, critical fault clearing times are typically the shortest (most severe) at minimum load conditions, with just a few large base load units supplying the system needs. As noted in the DEF reliability criteria, some remedial actions are allowed to reduce system loadings; in particular, sectionalizing is allowed to reduce loading on lower voltage lines for bulk system contingencies, but the risk to load on the sectionalized system must be reasonable (it would not be considered prudent to operate for long periods with a sectionalized system). In addition, the number of remedial action steps and the overall complexity of the scheme are evaluated to determine overall acceptability.

DEF presently uses the following reference documents to calculate and manage Available Transfer Capability (ATC), Total Transfer Capability (TTC) and Transmission Reliability Margin (TRM) for required transmission path postings on the Florida Open Access Same Time Information System (OASIS):

- http://www.oatioasis.com/FPC/FPCdocs/ATCID_Posted_Rev4.docx
- http://www.oatioasis.com/FPC/FPCdocs/TRMID_4.docx

DEF uses the following reference document to calculate and manage Capacity Benefit Margin (CBM):

- http://www.oatioasis.com/FPC/FPCdocs/CBMID_rev3.docx

CHAPTER 4

ENVIRONMENTAL AND LAND USE INFORMATION

DUKE ENERGY
FLORIDA

CHAPTER 4

ENVIRONMENTAL AND LAND USE INFORMATION

PREFERRED SITES

DEF's 2021 TYSP Preferred Sites include seven solar generations sites; the Twin Rivers Solar Site, the Santa Fe Solar Site, the Charlie Creek Solar Site, the Duette Solar Site, the Sandy Creek Solar Site, the Fort Green Solar Site, and the Bay Trail Solar Site. These Preferred Sites are discussed below.

TWIN RIVERS SOLAR SITE

DEF has identified the Twin Rivers Solar Plant, a 74.9 MWac solar single-axis tracking PV project located in Hamilton County, Florida. The site is located on former agricultural and timber lands and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new 230 kV three terminal, three breaker switching station and will be connected via a generation tie-line. All environmental surveys are complete, and DEF has received the necessary special permits from Hamilton County. A Site and Development Plan approval is required from Hamilton County along with an Environmental Resource Permit from FDEP. The project expects to find a limited number of Gopher Tortoises with no other impacts to wetlands or additional species. The project is under construction with an expected in-service date at the beginning of 2021.

FIGURE 4.1

Twin Rivers Solar Plant

SANTA FE SOLAR POWER PLANT

DEF has identified the Santa Fe Solar Plant, a 74.9 MWac solar single-axis tracking PV project located in Columbia County, Florida. The site is a former agricultural and cattle grazing lands and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new 230 kV three terminal, three breaker switching station and will be connected via a generation tie-line. All environmental surveys are complete, and DEF has received the necessary special use permit from Columbia County. An Environmental Resource Permit is required from FDEP, but it is the responsibility of the EPC. A Gopher Tortoises relocation permit from FDEP has been received assuming 89 tortoises will need to be relocated to an already identified recipient site. There are no wetlands on site and no additional species of concern. The project is under construction with an expected in-service date at the beginning of 2021.

FIGURE 4.2

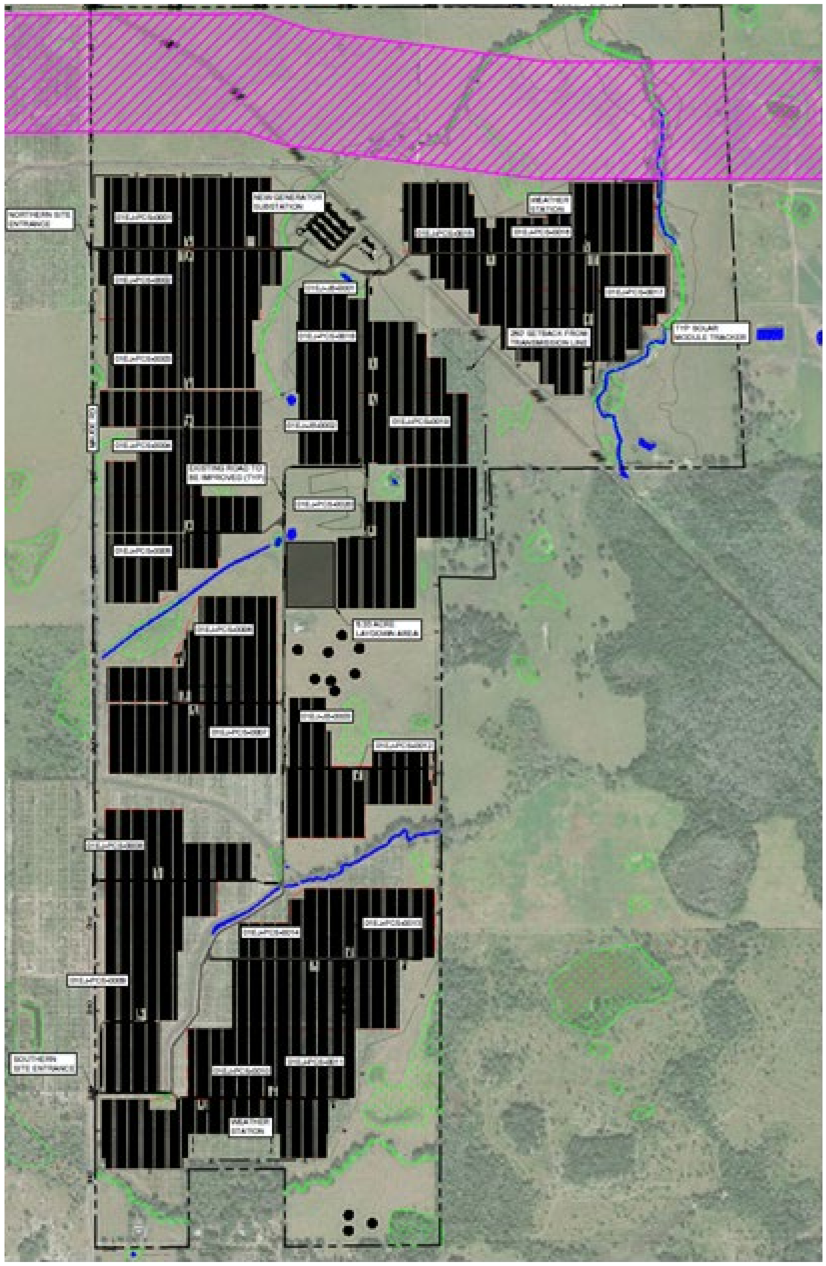
Santa Fe Solar Plant

CHARLIE CREEK SOLAR SITE

DEF has identified the Charlie Creek Solar Project, a 74.9 MWac solar single-axis tracking PV project located in Hardee County, Florida. The site is located on cattle grazing land and citrus groves and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new 230 kV three terminal, three breaker switching station and will be connected via a generation tie-line. All environmental surveys are complete, and DEF has received the necessary permits approvals from Hardee County. DEF has applied for the Environmental Resource Permit from FDEP and expects to receive it early in 2021. The project expects to find a limited number of Burrowing Owls on site and have minimal impacts to wetlands or additional species. The project is expected to start construction in March 2021 and is expected to achieve in-service by the end of 2021.

FIGURE 4.3

Charlie Creek Solar Project

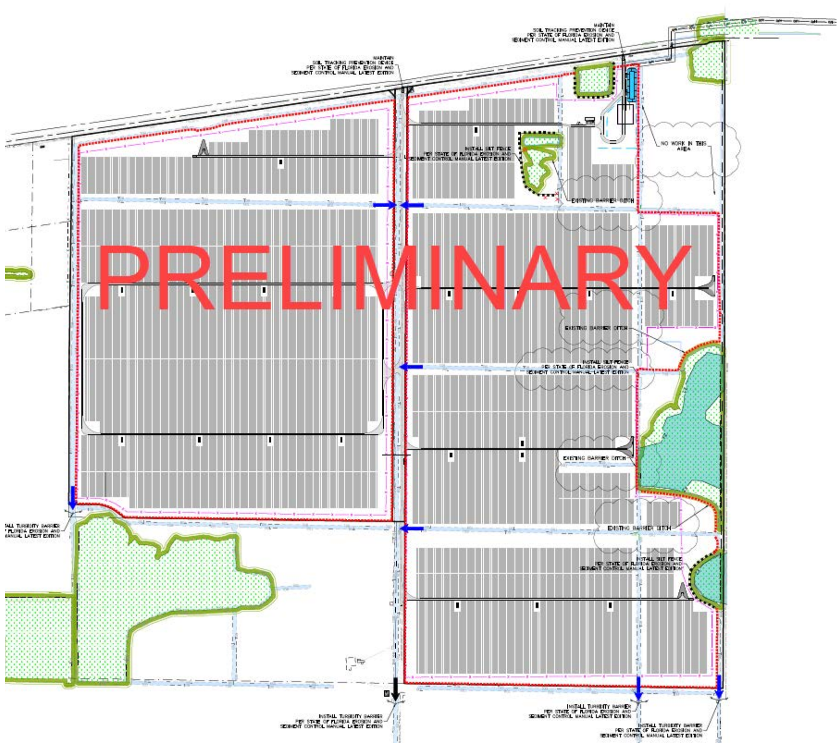


DUETTE SOLAR SITE

DEF has identified the Duette Solar Project, a 74.9 MWac solar single-axis tracking PV project located in Manatee County, Florida. The site is located on former citrus grove lands and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new line position on the 69 kV bus of the existing DEF Dry Prairie Substation and will be connected via a generation tie-line. All environmental surveys are complete, and DEF has received the necessary permits approvals from Manatee County as well as the Environmental Resource Permit from FDEP. The project expects to find a limited number of Gopher Tortoises and have minimal impacts to wetlands or additional species. The project started construction in January 2021 and is expected to achieve in-service by the end of 2021.

FIGURE 4.4

Duette Solar Project

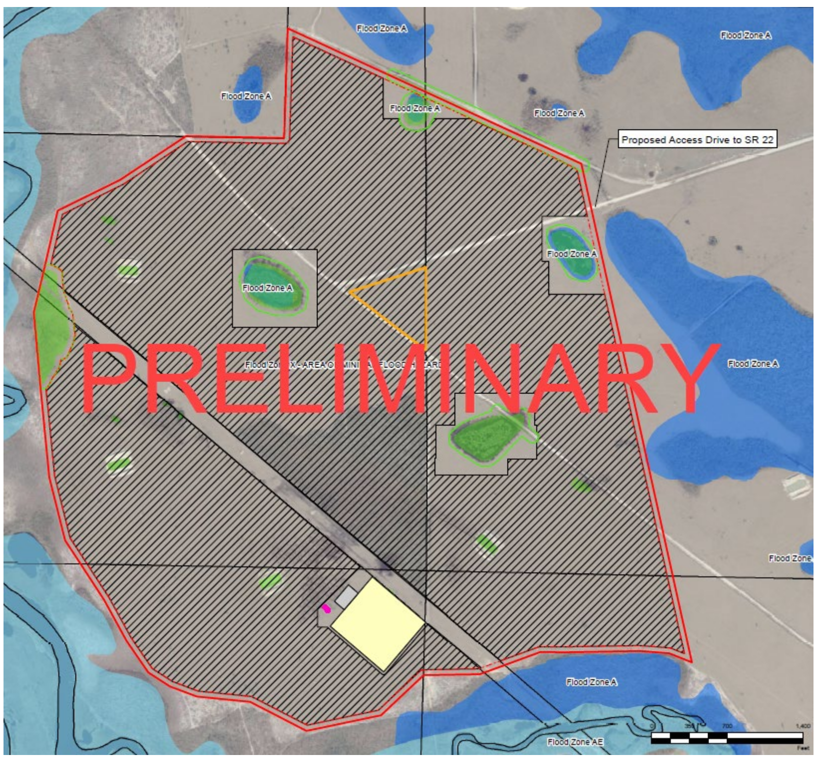


<u>SANDY CREEK SOLAR SITE</u>

DEF has identified the Sandy Creek Solar Project, a 74.9 MWac solar single-axis tracking PV project located in Bay County, Florida. The site is located on former cattle grazing and timber lands and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new 230 kV three terminal, three breaker switching station and will be connected via a short generation tie-line. All environmental surveys are complete, and DEF has received the necessary conditional permits from Bay County. A Development Order approval is required from Bay County along with an Environmental Resource Permit from FDEP. The project expects to find a limited number of Gopher Tortoises and have minimal impacts to wetlands or additional species. DEF has applied for the Environmental Resource Permit from FDEP and expects to receive it early in 2021. The project is expected to start construction in summer 2021 with an expected in-service date at the end of spring 2022.

FIGURE 4.5

Sandy Creek Solar Project



FORT GREEN SOLAR SITE

DEF has identified the Fort Green Solar Project, a 74.9 MWac fixed tracking PV project located in Hardee County, Florida. The site is located on reclaimed phosphate mining land and is relatively flat with minimal sloping. The point of interconnection will be a new 69 kV breaker terminal at the existing Fort Green Springs substation. The project generation step-up transformer will be located approximately one mile south of the project site, connected via a generation tie-line. All environmental surveys are complete. A Site Development and Site Construction Plan approval are required from Hardee County along with an Environmental Resource Permit from FDEP. The project expects to find a limited number of Gopher Tortoises and have minimal impacts to wetlands or additional species. The project is expected to start construction in Spring 2021 with an expected in-service date at the end of January 2022.

FIGURE 4.6

Fort Green Solar Project

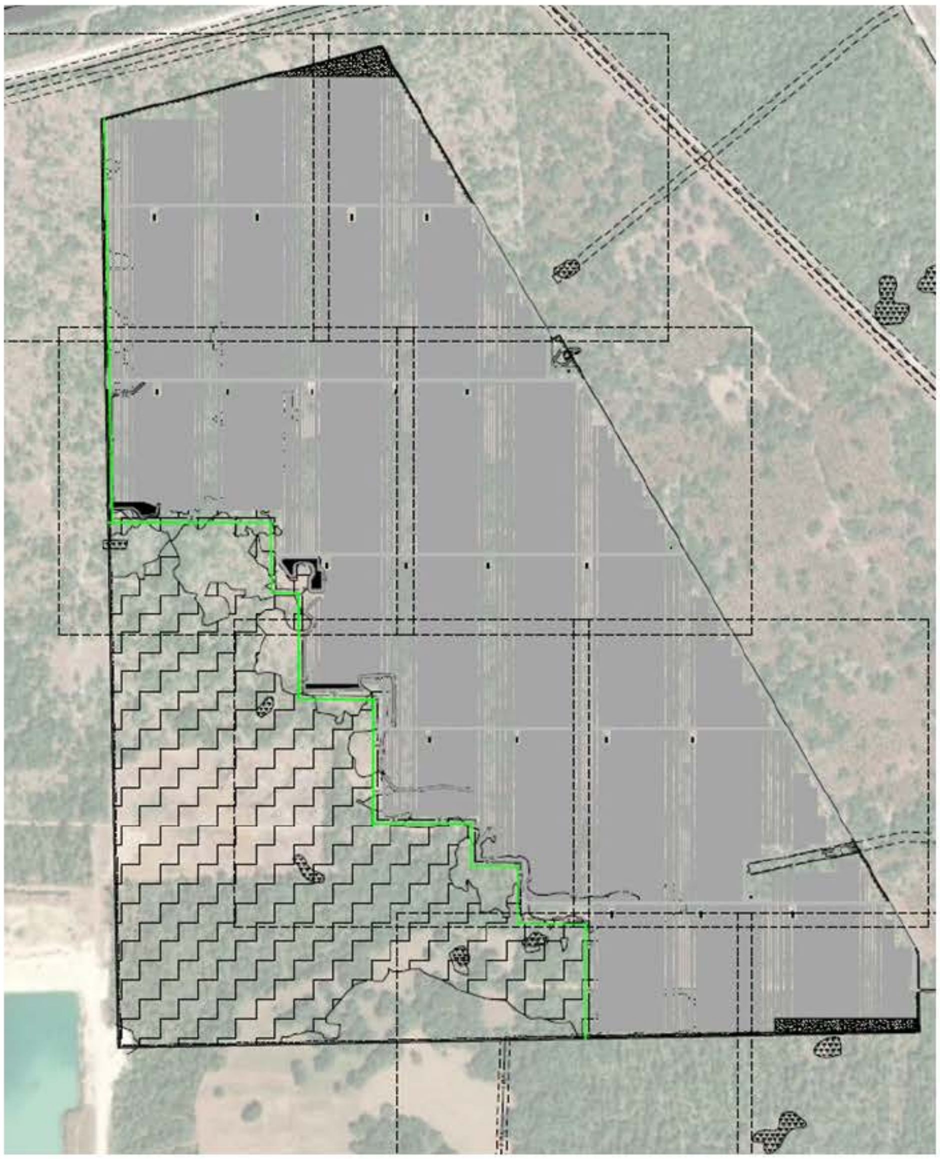
BAY TRAIL SOLAR SITE

DEF has identified the Bay Trail Solar Project, a 74.9 MWac solar single-axis tracking PV project located in Citrus County, Florida. The site is located on limestone mining lands and is relatively flat with minimal sloping that will allow for the use of a tracking system. The point of interconnection will be a new line position on the 230 kV bus of the existing DEF Citrus Combined Cycle Substation and will be connected via a generation tie-line. All environmental surveys are complete, and DEF has received the necessary permit approvals from Citrus County. DEF has applied for the Environmental Resource Permit from FDEP and expects to receive it early in 2021.

The project expects to find a limited number of Gopher Tortoises and have minimal impacts to wetlands or additional species. The project is scheduled to start construction in March 2021 and is expected to achieve in-service by the end of January 2022.

FIGURE 4.7

Bay Trail Solar Project



DUKE ENERGY FLORIDA

SCHEDULE 1
EXISTING GENERATING FACILITIES

AS OF DECEMBER 31, 2020

(1) PLANT NAME	(2) UNIT NO.	(3) LOCATION (COUNTY)	(4) UNIT TYPE	(5) FUEL PRI.	(6) FUEL ALT.	(7) FUEL TRANSPORT PRI.	(8) FUEL TRANSPORT ALT.	(9) ALT. FUEL DAYS USE	(10) COM'L IN-SERVICE MO./YEAR	(11) EXPECTED RETIREMENT MO./YEAR	(12) GEN. MAX. NAMEPLATE KW	(13) NET CAPABILITY SUMMER MW	(14) NET CAPABILITY WINTER MW
STEAM													
ANCLOTE	1	PASCO	ST	NG		PL			10/74		556,200	508	521
ANCLOTE	2	PASCO	ST	NG		PL			10/78		556,200	505	514
CRYSTAL RIVER	4	CITRUS	ST	BIT		WA	RR		12/82		739,260	712	721
CRYSTAL RIVER	5	CITRUS	ST	BIT		WA	RR		10/84		739,260	710	721
											Steam Total	**2,435**	**2,477**
COMBINED-CYCLE													
P L BARTOW	4	PINELLAS	CC	NG	DFO	PL	TK	*	6/09		1,254,200	1,112	1,259
CITRUS COUNTY COMBINED CYCLE	PB1	CITRUS	CC	NG		PL			10/18		985,150	807	941
CITRUS COUNTY COMBINED CYCLE	PB2	CITRUS	CC	NG		PL			11/18		985,150	803	943
HINES ENERGY COMPLEX	1	POLK	CC	NG		PL			4/99		546,500	490	528
HINES ENERGY COMPLEX	2	POLK	CC	NG	DFO	PL	TK	*	12/03		548,250	524	557
HINES ENERGY COMPLEX	3	POLK	CC	NG	DFO	PL	TK	*	11/05		561,000	521	553
HINES ENERGY COMPLEX	4	POLK	CC	NG	DFO	PL	TK	*	12/07		610,500	519	544
OSPREY ENERGY CENTER POWER PLANT	1	POLK	CC	NG		PL			5/04		644,300	245	245
TIGER BAY	1	POLK	CC	NG		PL			8/97		278,100	200	231
											CC Total	**5,221**	**5,801**
COMBUSTION TURBINE													
BARTOW	P1	PINELLAS	CT	DFO		WA		*	5/72	6/2027 **	55,400	41	52
BARTOW	P2	PINELLAS	CT	NG	DFO	PL	WA	*	6/72		55,400	41	57
BARTOW	P3	PINELLAS	CT	DFO		WA		*	6/72	6/2027 **	55,400	41	53
BARTOW	P4	PINELLAS	CT	NG	DFO	PL	WA	*	6/72		55,400	45	61
BAYBORO	P1	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	44	61
BAYBORO	P2	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	41	58
BAYBORO	P3	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	43	60
BAYBORO	P4	PINELLAS	CT	DFO		WA		*	4/73	12/2025 **	56,700	43	59
DEBARY	P2	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	48	64
DEBARY	P3	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P4	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P5	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	49	65
DEBARY	P6	VOLUSIA	CT	DFO		TK		*	12/75-4/76	6/2027 **	73,440	50	65
DEBARY	P7	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	79	96
DEBARY	P8	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	78	96
DEBARY	P9	VOLUSIA	CT	NG	DFO	PL	TK	*	10/92		103,500	80	96
DEBARY	P10	VOLUSIA	CT	DFO		TK		*	10/92		103,500	75	95
INTERCESSION CITY	P1	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	47	64
INTERCESSION CITY	P2	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P3	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P4	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	46	63
INTERCESSION CITY	P5	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	45	62
INTERCESSION CITY	P6	OSCEOLA	CT	DFO		PL,TK		*	5/74		56,700	47	64
INTERCESSION CITY	P7	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	78	95
INTERCESSION CITY	P8	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	79	96
INTERCESSION CITY	P9	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	79	96
INTERCESSION CITY	P10	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	10/93		103,500	78	96
INTERCESSION CITY	P11	OSCEOLA	CT	DFO		PL,TK		*	1/97		148,500	140	161
INTERCESSION CITY	P12	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	73	90
INTERCESSION CITY	P13	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	75	93
INTERCESSION CITY	P14	OSCEOLA	CT	NG	DFO	PL	PL,TK	*	12/00		98,260	72	92
SUWANNEE RIVER	P1	SUWANNEE	CT	NG	DFO	PL	TK	*	10/80		65,999	49	68
SUWANNEE RIVER	P2	SUWANNEE	CT	DFO		TK		*	10/80		65,999	50	67
SUWANNEE RIVER	P3	SUWANNEE	CT	NG	DFO	PL	TK	*	11/80		65,999	50	68
UNIVERSITY OF FLORIDA	P1	ALACHUA	GT	NG		PL			1/94	11/2027 **	43,000	43	50
											CT Total	**2,041**	**2,619**
SOLAR													
OSCEOLA SOLAR FACILITY	PV1	OSCEOLA	PV	SO					5/16		3,800	1.67	0
PERRY SOLAR FACILITY	PV1	TAYLOR	PV	SO					8/16		5,100	2.24	0
SUWANNEE RIVER SOLAR FACILITY	PV1	SUWANNEE	PV	SO					11/17		8,800	3.90	0
HAMILTON SOLAR POWER PLANT	PV1	HAMILTON	PV	SO					12/18		74,900	42.27	0
TRENTON SOLAR POWER PLANT	PV1	GILCHRIST	PV	SO					12/19		74,900	42.48	0
LAKE PLACID SOLAR POWER PLANT	PV1	HIGHLANDS	PV	SO					12/19		45,000	25.52	0
ST PETERSBURG PIER	PV1	PINELLAS	PV	SO					12/19		350	0.20	0
COLUMBIA SOLAR POWER PLANT	PV1	COLUMBIA	PV	SO					3/20		74,900	42.69	0
DEBARY SOLAR POWER PLANT	PV1	VOLUSIA	PV	SO					5/20		74,500	33.53	0
											SOLAR Total	**194**	**0**
											TOTAL RESOURCES (MW)	**9,891**	**10,897**

* APPROXIMATELY 2 TO 3 DAYS OF OIL USE TYPICALLY TARGETED FOR ENTIRE PLANT.
** DATES FOR RETIREMENT ARE APPROXIMATE AND SUBJECT TO CHANGE

DUKE ENERGY FLORIDA

SCHEDULE 2.1.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RURAL AND RESIDENTIAL					COMMERCIAL		
YEAR	DEF POPULATION	MEMBERS PER HOUSEHOLD	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER	GWh	AVERAGE NO. OF CUSTOMERS	AVERAGE KWh CONSUMPTION PER CUSTOMER
HISTORY:								
2011	3,625,558	2.496	19,238	1,452,454	13,245	11,892	162,071	73,374
2012	3,641,179	2.496	18,251	1,458,690	12,512	11,723	163,297	71,792
2013	3,713,013	2.495	18,508	1,488,159	12,437	11,718	165,936	70,617
2014	3,747,160	2.492	19,003	1,503,758	12,637	11,789	167,253	70,485
2015	3,794,138	2.489	19,932	1,524,605	13,074	12,070	169,147	71,359

DUKE ENERGY FLORIDA

SCHEDULE 2.2.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	INDUSTRIAL						
					STREET &	OTHER SALES	TOTAL SALES
		AVERAGE	AVERAGE KWh	RAILROADS	HIGHWAY	TO PUBLIC	TO ULTIMATE
		NO. OF	CONSUMPTION	AND RAILWAYS	LIGHTING	AUTHORITIES	CONSUMERS
YEAR	GWh	CUSTOMERS	PER CUSTOMER	GWh	GWh	GWh	GWh
HISTORY:							
2011	3,243	2,408	1,346,761	0	25	3,200	37,598
2012	3,160	2,372	1,332,209	0	25	3,221	36,381
2013	3,206	2,343	1,368,331	0	25	3,159	36,616
2014	3,267	2,280	1,432,895	0	25	3,157	37,240
2015	3,293	2,243	1,468,123	0	24	3,234	38,553
2016	3,197	2,178	1,467,860	0	24	3,194	38,774
2017	3,120	2,137	1,459,991	0	24	3,171	38,023

DUKE ENERGY FLORIDA

SCHEDULE 2.3.1
HISTORY AND FORECAST OF ENERGY CONSUMPTION AND
NUMBER OF CUSTOMERS BY CUSTOMER CLASS
BASE CASE FORECAST

(1) YEAR	(2) SALES FOR RESALE GWh	(3) UTILITY USE & LOSSES GWh	(4) NET ENERGY FOR LOAD GWh	(5) OTHER CUSTOMERS (AVERAGE NO.)	(6) TOTAL NO. OF CUSTOMERS
HISTORY:					
2011	2,712	2,180	42,490	25,228	1,642,161
2012	1,768	3,065	41,214	25,480	1,649,839
2013	1,488	2,668	40,772	25,759	1,682,197
2014	1,333	2,402	40,975	25,800	1,699,091
2015	1,243	2,484	42,280	25,866	1,721,861
2016	1,803	2,277	42,854	26,005	1,743,149
2017	2,196	2,700	42,919	26,248	1,775,340
2018	2,324	2,756	44,224	26,504	1,801,564

DUKE ENERGY FLORIDA

SCHEDULE 3 1 1
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	10,570	740	9,830	364	392	628	85	429	80	$\boxed{8,592}$
2022	11,108	1,080	10,028	369	393	654	88	432	80	9,092
2023	10,812	662	10,150	374	394	681	91	434	80	8,757
2024	10,940	662	10,278	379	395	707	95	436	80	8,849
2025	10,822	461	10,360	379	396	732	98	438	80	8,699
2026	10,848	461	10,387	379	397	756	101	440	80	8,695
2027	10,946	461	10,485	379	398	779	104	443	80	8,764
2028	11,068	461	10,607	379	399	801	107	445	80	8,857
2029	11,169	461	10,707	379	400	823	111	447	80	8,930
2030	11,271	461	10,809	379	401	844	114	449	80	9,004

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) =Customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 1 2
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1,080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1,021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	11,370	740	10,630	364	392	628	85	429	80	9,391
2022	11,910	1,080	10,830	369	393	654	88	432	80	9,894
2023	11,627	662	10,965	374	394	681	91	434	80	9,572
2024	11,777	662	11,115	379	395	707	95	436	80	9,686
2025	11,631	461	11,170	379	396	732	98	438	80	9,509
2026	11,675	461	11,213	379	397	756	101	440	80	9,522
2027	11,799	461	11,338	379	398	779	104	443	80	9,617
2028	11,951	461	11,490	379	399	801	107	445	80	9,740
2029	12,090	461	11,628	379	400	823	111	447	80	9,850
2030	12,229	461	11,768	379	401	844	114	449	80	9,963

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) =Customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 1 3
HISTORY AND FORECAST OF SUMMER PEAK DEMAND (MW)
LOW CASE FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM / IND LOAD MANAGEMENT	(9) COMM / IND CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
HISTORY:										
2011	9,972	934	9,038	227	317	329	97	256	110	8,636
2012	9,788	1,080	8,708	262	328	358	98	280	124	8,337
2013	9,581	581	9,000	317	341	382	101	298	124	8,017
2014	10,067	814	9,253	232	355	404	108	313	132	8,523
2015	10,058	772	9,286	303	360	435	124	324	80	8,431
2016	10,530	893	9,637	235	366	466	100	339	80	8,946
2017	10,220	808	9,412	203	342	498	95	349	80	8,653
2018	10,271	812	9,459	257	386	532	83	387	80	8,545
2019	11,029	1,021	10,008	230	394	566	86	414	80	9,260
2020	10,765	901	9,864	250	393	599	83	440	80	8,921
FORECAST:										
2021	9,543	740	8,803	364	392	628	85	429	80	7,564
2022	10,023	1,080	8,943	369	393	654	88	432	80	8,007
2023	9,733	662	9,071	374	394	681	91	434	80	7,678
2024	9,860	662	9,198	379	395	707	95	436	80	7,769
2025	9,708	461	9,247	379	396	732	98	438	80	7,586
2026	9,713	461	9,252	379	397	756	101	440	80	7,560
2027	9,784	461	9,323	379	398	779	104	443	80	7,602
2028	9,877	461	9,416	379	399	801	107	445	80	7,666
2029	9,958	461	9,497	379	400	823	111	447	80	7,719
2030	10,040	461	9,579	379	401	844	114	449	80	7,774

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) =Customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 2 1
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(OTH)	(10)
YEAR	TOTAL	WHOLESALE	RETAIL	INTERRUPTIBLE	RESIDENTIAL LOAD MANAGEMENT	RESIDENTIAL CONSERVATION	COMM / IND LOAD MANAGEMENT	COMM / IND CONSERVATION	OTHER DEMAND REDUCTIONS	NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	10,698	656	10,042	313	669	983	82	259	189	8,203
2021/22	11,905	1,652	10,253	317	670	999	84	262	191	9,382
2022/23	11,664	1,265	10,400	322	671	1,014	88	265	193	9,113
2023/24	11,810	1,265	10,545	325	672	1,027	91	268	194	9,233
2024/25	11,656	1,064	10,592	325	673	1,043	94	270	194	9,057
2025/26	11,784	1,064	10,720	325	674	1,057	97	273	196	9,162
2026/27	11,871	1,064	10,807	325	675	1,070	100	276	196	9,228
2027/28	11,379	462	10,917	325	676	1,083	103	279	198	8,715
2028/29	11,463	462	11,000	325	677	1,095	107	282	198	8,779
2029/30	11,533	462	11,070	325	678	1,107	110	285	199	8,829

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 2 2
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
HIGH CASE FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM / IND LOAD MANAGEMENT	(9) COMM / IND CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1,625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1,035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1,275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1,071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	13,160	656	12,504	313	669	983	82	259	189	10,665
2021/22	14,403	1,652	12,751	317	670	999	84	262	191	11,880
2022/23	14,208	1,265	12,943	322	671	1,014	88	265	193	11,656
2023/24	14,415	1,265	13,150	325	672	1,027	91	268	194	11,837
2024/25	14,309	1,064	13,245	325	673	1,043	94	270	194	11,710
2025/26	14,487	1,064	13,423	325	674	1,057	97	273	196	11,866
2026/27	14,632	1,064	13,568	325	675	1,070	100	276	196	11,989
2027/28	14,205	462	13,743	325	676	1,083	103	279	198	11,541
2028/29	14,365	462	13,902	325	677	1,095	107	282	198	11,681
2029/30	14,511	462	14,049	325	678	1,107	110	285	199	11,807

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 2 3
HISTORY AND FORECAST OF WINTER PEAK DEMAND (MW)
LOW CASE FORECAST

(1) YEAR	(2) TOTAL	(3) WHOLESALE	(4) RETAIL	(5) INTERRUPTIBLE	(6) RESIDENTIAL LOAD MANAGEMENT	(7) RESIDENTIAL CONSERVATION	(8) COMM / IND LOAD MANAGEMENT	(9) COMM / IND CONSERVATION	(OTH) OTHER DEMAND REDUCTIONS	(10) NET FIRM DEMAND
HISTORY:										
2010/11	11,343	1,625	9,718	271	661	628	94	180	221	9,288
2011/12	9,721	905	8,816	186	643	686	96	203	206	7,701
2012/13	9,109	831	8,278	287	652	747	97	220	213	6,893
2013/14	9,467	658	8,809	257	654	785	101	229	219	7,222
2014/15	10,648	1,035	9,613	273	658	815	109	236	237	8,319
2015/16	9,678	1,275	8,403	207	681	845	113	240	170	7,421
2016/17	8,739	701	8,038	191	687	878	78	243	165	6,497
2017/18	11,559	1,071	10,488	244	699	913	79	246	196	9,182
2018/19	8,527	572	7,955	239	711	948	84	251	164	6,130
2019/20	9,725	613	9,112	292	670	982	80	256	164	7,282
FORECAST:										
2020/21	8,659	656	8,003	313	669	983	82	259	189	6,164
2021/22	9,760	1,652	8,109	317	670	999	84	262	191	7,237
2022/23	9,483	1,265	8,218	322	671	1,014	88	265	193	6,931
2023/24	9,590	1,265	8,326	325	672	1,027	91	268	194	7,013
2024/25	9,428	1,064	8,364	325	673	1,043	94	270	194	6,828
2025/26	9,529	1,064	8,465	325	674	1,057	97	273	196	6,907
2026/27	9,582	1,064	8,518	325	675	1,070	100	276	196	6,939
2027/28	9,054	462	8,592	325	676	1,083	103	279	198	6,391
2028/29	9,112	462	8,650	325	677	1,095	107	282	198	6,428
2028/29	9,157	462	8,695	325	678	1,107	110	285	199	6,454

Historical Values (2011 - 2020):
Col (2) = recorded peak + implemented load control + residential and commercial/industrial conservation and customer-owned self-service cogeneration
Cols (5) - (9) = Represent total cumulative capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)
Projected Values (2021 - 2030):
Cols (2) - (4) = forecasted peak without load control, cumulative conservation, and customer-owned self-service cogeneration
Cols (5) - (9) = Represent cumulative conservation and load control capabilities at peak Col (8) includes commercial load management and standby generation
Col (OTH) = Voltage reduction and customer-owned self-service cogeneration
Col (10) = (2) - (5) - (6) - (7) - (8) - (9) - (OTH)

DUKE ENERGY FLORIDA

SCHEDULE 3 3 3
HISTORY AND FORECAST OF ANNUAL NET ENERGY FOR LOAD (GWh)
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(OTH)	(5)	(6)	(7)	(8)	(9)
YEAR	TOTAL	RESIDENTIAL CONSERVATION	COMM / IND CONSERVATION	OTHER ENERGY REDUCTIONS	RETAIL	WHOLESALE	UTILITY USE & LOSSES	NET ENERGY FOR LOAD	LOAD FACTOR (%) *
HISTORY:									
2011	44,580	687	624	779	37,597	2,712	2,181	42,490	46 7
2012	43,396	733	669	780	36,381	1,768	3,065	41,214	52 1
2013	43,142	772	734	864	36,616	1,488	2,668	40,772	53 0
2014	43,443	812	791	864	37,240	1,333	2,402	40,975	50 7
2015	44,552	848	829	595	38,553	1,243	2,484	42,280	50 9
2016	45,200	892	857	596	38,774	1,803	2,277	42,854	50 6
2017	45,318	933	871	595	38,024	2,196	2,699	42,919	52 7
2018	46,729	977	933	595	39,145	2,324	2,755	44,224	48 9
2019	47,385	1,017	972	595	39,187	2,910	2,704	44,801	51 3
2020	47,379	1,050	919	596	39,230	2,887	2,697	44,814	52 9
FORECAST:									
2021	42,834	1,121	997	595	35,930	1,672	2,519	40,121	62 9
2022	44,396	1,170	1,008	595	36,597	2,557	2,469	41,623	77 1
2023	43,857	1,219	1,017	595	37,119	1,404	2,503	41,026	64 7
2024	44,465	1,267	1,027	596	37,536	1,404	2,635	41,575	68 3
2025	44,163	1,312	1,036	595	37,869	915	2,435	41,219	67 1
2026	44,388	1,356	1,045	595	37,830	915	2,647	41,392	69 2
2027	44,682	1,398	1,053	595	38,070	911	2,655	41,635	68 8
2028	45,106	1,439	1,062	596	38,554	898	2,557	42,008	68 9
2029	45,438	1,479	1,070	595	38,798	898	2,598	42,294	75 5
2030	45,754	1,517	1,077	595	39,027	898	2,640	42,564	75 6

* Load Factors for historical years are calculated using the actual and projected annual peak

DUKE ENERGY FLORIDA

SCHEDULE 4.1
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
BASE CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**9,376**	3,164	**10,564**	3,337
FEBRUARY	6,312	2,885	8,430	2,878	9,603	3,031
MARCH	8,090	3,394	7,131	3,116	8,262	3,271
APRIL	8,146	3,256	7,435	3,204	8,013	3,354
MAY	8,592	3,775	8,495	3,798	9,093	3,965
JUNE	9,647	4,300	9,110	4,081	9,658	4,256
JULY	9,393	4,688	9,050	4,345	9,557	4,519
AUGUST	**9,623**	4,730	**9,434**	4,452	**9,942**	4,616
SEPTEMBER	9,533	4,218	8,916	4,178	9,438	4,339
OCTOBER	8,468	4,012	8,288	3,605	8,797	3,754
NOVEMBER	6,943	3,169	6,552	3,094	7,057	3,219
DECEMBER	7,551	3,301	7,609	3,186	8,666	3,319
TOTAL		44,814		43,103		44,980

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

DUKE ENERGY FLORIDA

SCHEDULE 4.2
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
HIGH CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**11,838**	3,629	**13,062**	3,800
FEBRUARY	6,312	2,885	10,143	3,296	11,336	3,446
MARCH	8,090	3,394	7,976	3,539	9,108	3,691
APRIL	8,146	3,256	7,921	3,534	8,492	3,680
MAY	8,592	3,775	9,167	4,074	9,759	4,236
JUNE	9,647	4,300	9,864	4,355	10,408	4,526
JULY	9,393	4,688	9,820	4,582	10,325	4,751
AUGUST	**9,623**	4,730	**10,233**	4,687	**10,744**	4,847
SEPTEMBER	9,533	4,218	9,635	4,417	10,151	4,574
OCTOBER	8,468	4,012	8,930	3,967	9,433	4,116
NOVEMBER	6,943	3,169	7,103	3,469	7,602	3,595
DECEMBER	7,551	3,301	8,826	3,717	9,890	3,856
TOTAL		44,814		47,264		49,116

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

DUKE ENERGY FLORIDA

SCHEDULE 4.3
PREVIOUS YEAR ACTUAL AND TWO-YEAR FORECAST OF PEAK DEMAND
AND NET ENERGY FOR LOAD BY MONTH
LOW CASE FORECAST

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	ACTUAL		FORECAST		FORECAST	
	2020		2021		2022	
MONTH	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh	PEAK DEMAND MW	NEL GWh
JANUARY	**8,407**	3,087	**7,337**	2,863	**8,420**	2,979
FEBRUARY	6,312	2,885	7,047	2,596	8,134	2,702
MARCH	8,090	3,394	6,492	2,839	7,559	2,952
APRIL	8,146	3,256	7,063	2,991	7,581	3,103
MAY	8,592	3,775	7,962	3,586	8,497	3,714
JUNE	9,647	4,300	8,484	3,890	8,959	4,029
JULY	9,393	4,688	8,403	4,168	8,865	4,312
AUGUST	**9,623**	4,730	**8,737**	4,252	**9,189**	4,391
SEPTEMBER	9,533	4,218	8,333	3,984	8,802	4,125
OCTOBER	8,468	4,012	7,785	3,329	8,230	3,461
NOVEMBER	6,943	3,169	6,154	2,828	6,588	2,940
DECEMBER	7,551	3,301	6,622	2,795	7,609	2,915
TOTAL		44,814		40,121		41,623

NOTE: Recorded Net Peak demands and NEL include off-system wholesale contracts.

DUKE ENERGY FLORIDA

SCHEDULE 5
FUEL REQUIREMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	FUEL REQUIREMENTS		UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	NUCLEAR		TRILLION BTU	0	0	0	0	0	0	0	0	0	0	0	0
(2)	COAL		1,000 TON	1,976	1,562	4,591	3,625	2,169	1,986	1,730	1,912	1,709	1,864	1,773	2,027
(3)	RESIDUAL	TOTAL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(4)		STEAM	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CC	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CT	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)	DISTILLATE	TOTAL	1,000 BBL	121	118	48	66	29	75	77	167	189	252	195	151
(9)		STEAM	1,000 BBL	42	40	7	8	9	10	18	21	22	19	22	18
(10)		CC	1,000 BBL	0	3	0	0	0	0	0	0	0	0	0	0
(11)		CT	1,000 BBL	80	75	41	58	19	65	59	146	166	232	173	132
(12)		DIESEL	1,000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	NATURAL GAS	TOTAL	1,000 MCF	262,546	269,893	191,289	209,888	223,703	235,557	239,872	238,636	249,938	251,710	252,789	245,072
(14)		STEAM	1,000 MCF	25,020	25,624	5,889	6,700	6,288	6,601	7,231	8,277	7,786	8,546	7,594	7,865
(15)		CC	1,000 MCF	226,506	237,427	181,102	198,008	213,170	223,779	227,216	222,635	231,070	232,349	234,111	227,547
(16)		CT	1,000 MCF	11,020	6,841	4,298	5,180	4,245	5,177	5,425	7,724	11,082	10,816	11,084	9,659
	OTHER (SPECIFY)														
(17)	OTHER, DISTILLATE	ANNUAL FIRM INTERCHANGE	1,000 BBL	N/A	N/A	0	0	0	0	0	0	0	0	0	0
(18)	OTHER, NATURAL GAS	ANNUAL FIRM INTERCHANGE, CC	1,000 MCF	N/A	N/A	1,071	0	0	0	0	0	0	0	0	0
(18.1)	OTHER, NATURAL GAS	ANNUAL FIRM INTERCHANGE, CT	1,000 MCF	N/A	N/A	10,154	16,890	14,565	11,553	10,791	14,454	1,805	0	0	0
(19)	OTHER, COAL	ANNUAL FIRM INTERCHANGE, STEAM	1,000 TON	N/A	N/A	0	0	0	0	0	0	0	0	0	0

DUKE ENERGY FLORIDA

SCHEDULE 6.1
ENERGY SOURCES (GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	ANNUAL FIRM INTERCHANGE 1/		GWh	1,277	1,025	976	1,636	1,418	1,126	1,055	1,414	190	40	26	19
(2)	NUCLEAR		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(3)	COAL		GWh	4,322	3,287	10,268	8,035	4,583	4,107	3,531	3,938	3,509	3,869	3,654	4,190
(4)	RESIDUAL	TOTAL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(5)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(7)		CT	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(8)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(9)	DISTILLATE	TOTAL	GWh	33	33	16	22	7	25	22	54	65	91	68	52
(10)		STEAM	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	2	0	0	0	0	0	0	0	0	0	0
(12)		CT	GWh	33	31	16	22	7	25	22	54	65	91	68	52
(13)		DIESEL	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	NATURAL GAS	TOTAL	GWh	35,170	36,327	27,521	30,192	32,397	34,029	34,488	34,081	35,599	35,673	36,006	34,928
(15)		STEAM	GWh	2,278	2,244	351	403	370	395	447	529	483	551	471	487
(16)		CC	GWh	31,992	33,574	26,738	29,286	31,597	33,133	33,518	32,858	34,123	34,221	34,583	33,601
(17)		CT	GWh	900	510	433	503	430	502	523	694	993	900	952	840
(18)	OTHER 2/														
	QF PURCHASES		GWh	1,803	1,769	1,999	1,999	2,004	822	497	2	2	2	2	2
	RENEWABLES OTHER		GWh	0	0	0	0	0	0	0	0	0	0	0	0
	RENEWABLES MSW		GWh	670	654	942	953	953	952	946	946	946	949	946	946
	RENEWABLES BIOMASS		GWh	15	0	0	0	0	0	0	0	0	0	0	0
	RENEWABLES SOLAR		GWh	222	706	1,235	2,143	3,062	3,947	4,085	4,452	4,941	5,127	5,423	6,347
	IMPORT FROM OUT OF STATE		GWh	1,290	1,013	146	0	0	0	0	0	0	0	0	0
	EXPORT TO OUT OF STATE		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(19)	NET ENERGY FOR LOAD		GWh	44,801	44,814	43,103	44,980	44,424	45,010	44,624	44,886	45,252	45,751	46,125	46,483

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.
2/ NET ENERGY PURCHASED (+) OR SOLD (-).

DUKE ENERGY FLORIDA

SCHEDULE 6.2

ENERGY SOURCES (PERCENT)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
				-ACTUAL-											
	ENERGY SOURCES		UNITS	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
(1)	ANNUAL FIRM INTERCHANGE 1/		%	2.9%	2.3%	2.3%	3.6%	3.2%	2.5%	2.4%	3.1%	0.4%	0.1%	0.1%	0.0%
(2)	NUCLEAR		%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(3)	COAL		%	9.6%	7.3%	23 8%	17 9%	10 3%	9.1%	7.9%	8.8%	7.8%	8.5%	7.9%	9.0%
(4)	RESIDUAL	TOTAL	%	0.0%	0.0%	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%	0.0%	0.0%
(6)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(7)		CT	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(8)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(9)	DISTILLATE	TOTAL	%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
(10)		STEAM	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(11)		CC	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(12)		CT	%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.2%	0.1%	0.1%
(13)		DIESEL	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(14)	NATURAL GAS	TOTAL	%	78 5%	81.1%	63 8%	67.1%	72 9%	75.6%	77 3%	75 9%	78.7%	78 0%	78.1%	75.1%
(15)		STEAM	%	5.1%	5.0%	0.8%	0.9%	0.8%	0.9%	1.0%	1.2%	1.1%	1.2%	1.0%	1.0%
(16)		CC	%	71.4%	74 9%	62 0%	65.1%	71.1%	73.6%	75.1%	73 2%	75.4%	74 8%	75 0%	72 3%
(17)		CT	%	2.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.2%	1.5%	2.2%	2.0%	2.1%	1.8%
(18)	OTHER 2/														
	QF PURCHASES		%	4.0%	3.9%	4.6%	4.4%	4.5%	1.8%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%
	RENEWABLES OTHER		%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

	RENEWABLES MSW	%	1.5%	1.5%	2.2%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%
	RENEWABLES BIOMASS	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	RENEWABLES SOLAR	%	0.5%	1.6%	2.9%	4.8%	6.9%	8.8%	9.2%	9.9%	10 9%	11 2%	11 8%	13.7%
	IMPORT FROM OUT OF STATE	%	2.9%	2.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	EXPORT TO OUT OF STATE	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
(19)	NET ENERGY FOR LOAD	%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

1/ NET ENERGY PURCHASED (+) OR SOLD (-) WITHIN THE FRCC REGION.

2/ NET ENERGY PURCHASED (+) OR SOLD (-).

DUKE ENERGY FLORIDA

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)
	TOTAL INSTALLED CAPACITY	FIRM[a] CAPACITY IMPORT	FIRM CAPACITY EXPORT	QF[b]	TOTAL CAPACITY AVAILABLE	SYSTEM FIRM SUMMER PEAK DEMAND	RESERVE MARGIN BEFORE MAINTENANCE		SCHEDULED MAINTENANCE	RESERVE MARGIN AFTER MAINTENANCE	
YEAR	MW	MW	MW	MW	MW	MW	MW	% OF PEAK	MW	MW	% OF PEAK
2021	9,976	1,468	0	78	11,522	8,592	2,930	34%	0	2,930	34%
2022	10,188	1,468	0	78	11,734	9,092	2,642	29%	0	2,642	29%
2023	10,356	1,468	0	78	11,902	8,757	3,145	36%	0	3,145	36%
2024	10,861	872	0	78	11,810	8,849	2,961	33%	0	2,961	33%
2025	10,856	757	0	0	11,613	8,699	2,914	33%	0	2,914	33%
2026	10,719	653	0	0	11,371	8,695	2,676	31%	0	2,676	31%
2027	10,637	0	0	0	10,637	8,764	1,874	21%	0	1,874	21%
2028	10,609	0	0	0	10,609	8,857	1,752	20%	0	1,752	20%
2029	10,838	0	0	0	10,838	8,930	1,908	21%	0	1,908	21%
2030	10,889	0	0	0	10,889	9,004	1,885	21%	0	1,885	21%

Notes:

a. FIRM Capacity Import includes Cogeneration, Utility and Independent Power Producers, and Short Term Purchase Contracts.

b. QF includes Firm Renewables

DUKE ENERGY FLORIDA

SCHEDULE 7.2
FORECAST OF CAPACITY, DEMAND AND SCHEDULED MAINTENANCE
AT TIME OF WINTER PEAK

(1) YEAR	(2) TOTAL INSTALLED CAPACITY MW	(3) FIRM[a] CAPACITY IMPORT MW	(4) FIRM CAPACITY EXPORT MW	(5) QF[b] MW	(6) TOTAL CAPACITY AVAILABLE MW	(7) SYSTEM FIRM WINTER PEAK DEMAND MW	(8) RESERVE MARGIN BEFORE MAINTENANCE MW	(9) RESERVE MARGIN BEFORE MAINTENANCE % OF PEAK	(10) SCHEDULED MAINTENANCE MW	(11) RESERVE MARGIN AFTER MAINTENANCE MW	(12) RESERVE MARGIN AFTER MAINTENANCE % OF PEAK
2020/21	10,897	1,978	0	78	12,953	8,203	4,750	58%	0	4,750	58%
2021/22	10,897	1,554	0	78	12,529	9,382	3,147	34%	0	3,147	34%
2022/23	10,897	1,554	0	78	12,529	9,113	3,416	37%	0	3,416	37%
2023/24	10,897	1,439	0	78	12,414	9,233	3,181	34%	0	3,181	34%
2024/25	11,252	801	0	0	12,053	9,057	2,996	33%	0	2,996	33%
2025/26	11,014	697	0	0	11,711	9,162	2,548	28%	0	2,548	28%
2026/27	11,014	697	0	0	11,711	9,228	2,483	27%	0	2,483	27%
2027/28	10,768	0	0	0	10,768	8,715	2,053	24%	0	2,053	24%
2028/29	10,768	0	0	0	10,768	8,779	1,989	23%	0	1,989	23%
2029/30	11,000	0	0	0	11,000	8,829	2,171	25%	0	2,171	25%

Notes:

a. FIRM Capacity Import includes Cogeneration, Utility and Independent Power Producers, and Short Term Purchase Contracts.

b. QF includes Firm Renewables

DUKE ENERGY FLORIDA

SCHEDULE 8
PLANNED AND PROSPECTIVE GENERATING FACILITY ADDITIONS AND CHANGES

AS OF JANUARY 1, 2021 THROUGH DECEMBER 31, 2030

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
												F RM NET CAPAB LITY			
								CONST.	COM'L N-	EXPECTED	GEN. MAX.				
	UNIT	LOCATION	UNIT	FUEL		FUEL TRANSPORT		START	SERVICE	RETIREMENT	NAMEPLATE	SUMMER	W NTER		
PLANT NAME	NO.	(COUNTY)	TYPE	PRI.	ALT.	PRI.	ALT.	MO. / YR	MO. / YR	MO. / YR	KW	MW	MW	STATUS[a]	NOTES[b]
TWIN RIVERS	1	HAMILTON	PV	SO				06/2020	02/2021		74,900	43	0	P	(1)
SANTA FE	1	COLUMBIA	PV	SO				07/2020	03/2021		74,900	43	0	P	(1)
DUETTE	1	MANATEE	PV	SO				03/2021	11/2021		74,500	42	0	P	(1)
CHARLIE CREEK	1	HARDEE	PV	SO				03/2021	12/2021		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(1)			(2)
FORT GREEN	1	HARDEE	PV	SO				04/2021	01/2022		74,900	43	0	P	(1)
BAY TRAIL	1	CITRUS	PV	SO				03/2021	01/2022		74,900	43	0	P	(1)
SANDY CREEK	1	BAY COUNTY	PV	SO				06/2021	04/2022		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(1)			(2)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2022	01/2023		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(2)			(2)
OSPREY CC	1	POLK	CC	NG	DFO	PL	TK		05/2024			337	355	P	(3)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
CLEAN ENERGY CONNECTION	1	UNKNOWN	PV	SO				05/2023	01/2024		74,900	43	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(3)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2025	12/2025		74,900	19	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2025	12/2025		74,900	19	0	P	(1)
BAYBORO	P1 - P4	PINELLAS	CT	DFO		WA				12/2025		(171)	(238)		
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2026	12/2026		74,900	19	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2026	12/2026		74,900	19	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
DEBARY	P2 - P6	VOLUSIA	CT	DFO		TK				06/2027		(247)	(324)		

BARTOW	P1, P3	PINELLAS	CT	DFO		WA				06/2027		(82)	(105)		
UNKNOWN	P1	UNKNOWN	CT	NG	DFO	PL	TK	01/2025	06/2027		227,500	214	233	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2027	12/2027		74,900	19	0	P	(1)
UNIVERSITY OF FLOR DA	P1	ALACHUA	GT	NG		PL				11/2027		(43)	(50)		
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2028	12/2028		74,900	19	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(4)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				04/2029	12/2029		74,900	19	0	P	(1)
UNKNOWN	P2	UNKNOWN	CT	NG	DFO	PL	TK	01/2027	06/2029		227,500	214	233	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(5)			(2)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				05/2029	01/2030		74,900	9	0	P	(1)
UNKNOWN	1	UNKNOWN	PV	SO				04/2030	12/2030		74,900	9	0	P	(1)
SOLAR DEGRADATION	N/A	N/A	N/A	N/A		N/A		N/A	N/A	N/A	N/A	(5)			(2)

a. See page v. for Code Legend of Future Generating Unit Status.
b. NOTES
(1) Planned, Prospective, or Committed project.
(2) Solar capacity degrades by 0 5% every year
(3) Osprey CC Acquisition total capacity is available once Transmission Upgrades are in service, total Summer capacity goes up to 582MW and total Winter capacity goes up to 600MW

DUKE ENERGY FLORIDA

SCHEDULE 10
STATUS REPORT AND SPECIFICATIONS OF PROPOSED DIRECTLY ASSOCIATED TRANSMISSION LINES

OSPREY

(1) POINT OF ORIGIN AND TERMINATION:	Kathleen - Osprey - Haines City East
(2) NUMBER OF LINES:	1
(3) RIGHT-OF-WAY:	New transmission line right-of-way
(4) LINE LENGTH:	50 miles
(5) VOLTAGE:	230 kV
(6) ANTICIPATED CONSTRUCTION TIMING:	6/1/2024
(7) ANTICIPATED CAPITAL INVESTMENT:	$150,000,000
(8) SUBSTATIONS:	Kathleen, Osprey, Haines City East
(9) PARTICIPATION WITH OTHER UTILITIES:	N/A