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II. Forecast of Electric Power Demand

II.A. Overview of the Load Forecasting Process

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

As previously discussed, FPL and Gulf plan to integrate the two systems into a single electric system, effective mid-2022. In this document, the load forecasts for FPL and Gulf will be presented separately for the year 2021 only. For 2022 through 2030, the load forecast for the single integrated utility will be presented. For purposes of this 2021 Site Plan, the integrated, single electric system will be referred to in this document as FPL. This forecast will reflect the growth of the new integrated system, including reduced peak demand from load diversity.

FPL and Gulf typically develop long-term forecasts of customers, energy sales, and peak loads on an annual basis for each of their systems. The forecasts for FPL and Gulf then were combined to arrive at the forecasts for the single integrated system for the years 2022 and beyond. These new load forecasts are utilized throughout this 2021 Site Plan and are key inputs in the resource planning analyses that led to the integrated resource plan presented in this document.

The following pages describe how the forecasts of customers, energy sales, and peak loads were initially developed separately for FPL and Gulf, and then combined into a single set of forecasts for the integrated system. Similar to previous forecasts, the drivers for both the FPL and Gulf forecasts include household growth, economic conditions, electricity prices, weather, and energy-efficiency codes and standards. Additionally, these forecasts are 50% probability (P50) forecasts. This means there is a 50% probability that actual load will be either higher or lower than the forecasted load.

The projections for population growth, household growth, and other economic variables are obtained from IHS Markit, a leading economic forecasting firm that has been previously used

by FPL. Using statistical models, these inputs are quantified in terms of their impact on the future demand for electricity.

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

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

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

Gulf's weather variables are based on the hourly temperatures from the Pensacola weather station. The Pensacola hourly temperatures are then used to derive Gulf's cooling degree hours and heating degree hours used in the energy models, the peak day cooling degree hours used in the Summer peak demand model, and the temperatures used in the Winter peak demand model. The eight counties in Gulf's service area typically experience similar weather patterns and previous experience has shown that the use of multiple weather stations does not result in significant differences in the reported weather. The Pensacola weather station is used due to the availability of consistent historical data.

II.B. Customer Forecasts

FPL's customer forecasts are developed by class as the factors driving customer growth vary by class. Residential customer growth is driven by households, commercial customer growth is driven by residential customers and recent trends, and industrial customer growth is driven by housing starts and recent trends. Projections of households and housing starts are from IHS

Markit. Total customer growth is projected to grow at an average annual rate of 1.0% during the years 2021 and 2022. The primary driver of customer growth is households.

Gulf's customer forecasts are also developed by class. Residential customer growth is driven by households, commercial customer growth is driven by retail sales and recent trends, and industrial customer growth is driven by recent trends. Total customer growth is projected to grow at an average annual rate of 0.9% during the years 2021 and 2022. The primary driver of customer growth is households.

The customer forecasts for the integrated system for 2022 and beyond are the sum of the class-level customer forecasts for FPL and Gulf, which represent 91.6% and 8.4% of the combined 2022 customers, respectively. Total customer growth is projected to grow at an average annual rate of 1.1% during the forecast period. The primary driver of customer growth is projected increase in population.

II.C. Energy Sales Forecasts

Energy sales forecasts for both FPL and Gulf were developed for the major revenue classes, wholesale energy sales, and losses. Energy adjustments, such as electric vehicles and private solar, were calculated and applied to the class-level energy sales forecasts. These forecasts were then aggregated up to arrive at the net energy for load (NEL) forecast for each company (a bottom-up approach). Econometric models were developed using the statistical software package MetrixND.

The energy sales forecasts presented in this Site Plan were developed using methodologies consistent with those used for the 2020 Site Plan, with routine updates to include additional historical data and minor changes to model specifications.

1. Residential Sales

FPL's residential energy sales forecast was developed using an econometric model. Residential energy sales, expressed as monthly use per customer by billing day, are a function of cooling degree hours, heating degree hours, real per capita income per household, the twelve-month moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, monthly binary terms, and an autoregressive term. The forecasted energy use per customer per billing day was then multiplied by the projected number of residential customers and projected billing days by month to arrive at the residential billed energy sales. The billed energy sales were

then adjusted for unbilled energy to arrive at the calendar month delivered energy sales forecast.

Gulf's residential energy sales forecast was also developed using an econometric model. Monthly use per customer per billing day was estimated using cooling degree hours, heating degree hours, the twelve-month moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, monthly binary terms, and an autoregressive term. The model output was then multiplied by the projected number of residential customers and projected billing days by month to expand to the total residential class.

The methodologies described above for FPL and Gulf are consistent with those used to develop the forecasts presented in the 2020 Site Plan, with only routine updates to model specifications. Since the 2020 Site Plan, both FPL and Gulf have relied on consistent energy sales forecasting methodologies.

Both FPL's and Gulf's residential energy sales forecasts were adjusted to reflect the anticipated impact of continued adoption of electric vehicles. FPL's residential energy sales forecast was also adjusted to reflect the impact of private solar.

The residential energy sales forecasts for the integrated system for the year 2022 and beyond are the sum of the residential sales forecasts for FPL and Gulf, which represent, respectively, 91.7% and 8.3% of the combined 2022 residential sales. Residential energy sales are projected to grow at an average annual rate of 1.2% during the forecast period.

2. Commercial Sales

Econometric models were also used to develop a commercial sales forecast for FPL. The commercial class is forecast using two separate models based on customer size: small and medium accounts (energy only and demand rates less than 500 kW) and large accounts (demand rates of 500 kW or higher). The commercial sales models utilize the following variables: cooling degree hours, employment, the twelve-month moving average of real electricity price increases over time, monthly binary terms, and an autoregressive term. The model outputs were then multiplied by the projected number of commercial customers associated with each respective model and the projected billing days by month to arrive at the billed energy sales. The billed energy sales were then adjusted for unbilled energy to arrive at the calendar month delivered energy sales forecast. The commercial lighting sales

forecast was developed using inputs from FPL's lighting team. These forecasts are then added together to arrive at the total commercial sales forecast.

Econometric models were also used to develop a commercial non-lighting sales forecast for Gulf. The commercial non-lighting sales is forecast using two separate models that are based on customer size: small accounts (less than 25 kW of demand) and large accounts (all other commercial rate schedules excluding lighting rates). The models utilize the following variables: cooling degree hours, heating degree hours, twelve-month moving average of real electricity price increases over time, energy savings from changes to energy efficiency codes and standards, monthly binary terms, and an autoregressive term. The model outputs were then multiplied by the projected number of commercial customers associated with each respective model and the projected billing days by month to arrive at the billed energy sales. The billed energy sales were then adjusted for unbilled energy to arrive at the calendar month delivered energy sales forecast. The commercial lighting sales forecast was developed using inputs from FPL's lighting team.

FPL's commercial energy sales forecast was adjusted to reflect the impact of private solar and the incremental load projected to be added for the forecast period from FPL's economic development riders.

The commercial energy sales forecasts for the integrated system for the years 2022 and beyond are the sum of the commercial sales forecasts for FPL and Gulf, which represent, respectively, 92.8% and 7.2% of the combined 2022 commercial sales. Commercial energy sales are projected to grow at an average annual rate of 0.9% during the forecast period.

3. Industrial Sales

FPL's industrial class sales were forecasted using three separate models based on customer size: small accounts (energy only rates), medium accounts (demand rates less than 500 kW), and large accounts (demands rates 500 kW and above). The small industrial sales model utilizes cooling degree hours, a binary variable, and an autoregressive term. The model output was then multiplied by the projected number of small industrial customers and the projected billing days by month to arrive at the billed energy sales. The medium and large forecasts utilize exponential smoothing models. The industrial lighting sales forecast was developed using inputs from FPL's lighting team. These forecasts were then added together to arrive at the total industrial sales forecast.

Gulf's industrial class sales forecast was developed using an exponential smoothing model for non-lighting rates and inputs from FPL's lighting team for industrial lighting sales. These forecasts were added together to arrive at the total industrial sales forecast.

FPL's industrial energy sales were adjusted for forecasted Commercial/Industrial Service Rider (CISR) sales for new or retained customer loads of 2 MW or greater and meet the criteria outlined in FPL's Rate Schedule CISR-1.

The industrial energy sales forecasts for the integrated system for the years 2022 and beyond are the sum of the industrial sales forecasts for FPL and Gulf, which represent, respectively, 64.5% and 35.5% of the combined 2022 industrial sales. Industrial energy sales are projected to remain mostly flat during the forecast period, only growing at an average annual rate of 0.5%.

4. Railroad and Railways Sales and Street and Highway Sales

The Railroad and Railway class is applicable only to FPL and consists solely of Miami-Dade County's Metrorail system. The railroad and railways sales forecast was developed using a use per customer regression model which included monthly binary variables and an autoregressive term. The output of the use per customer model was multiplied by the number of customers to arrive at the railroad and railways sales forecast.

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

5. Other Public Authority Sales

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

6. Total Sales to Ultimate Customer

The sales forecasts by revenue class for FPL and Gulf are each summed to produce their respective total sales forecasts.

7. Sales for Resale

Sales for resale (wholesale) customers are comprised of sales to municipalities and/or electric co-operatives. These customers differ from jurisdictional customers in that they are

not the ultimate users of the electricity. Instead, they resell this electricity to their own customers.

The load forecast for FPL includes wholesale loads served under full and partial-requirements contracts that provide other utilities all, or a portion of, their load requirements at a level of service equivalent to FPL's own native load customers. There are currently ten customers in this class: Florida Keys Electric Cooperative, Lee County Electric Cooperative, New Smyrna Beach, Wauchula, Homestead, Quincy, Moore Haven, Florida Public Utilities Company, Seminole Electric Cooperative, and Jacksonville Electric Authority. [7]

The load forecast for Gulf also includes a full-requirements wholesale contract that provide another utility all of their load requirement at a level of service equivalent to Gulf's own native load customers. There is currently one customer in this class: Florida Public Utilities Company.

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

FPL sales to Lee County began in 2010. Lee County has a contract with FPL for the full-requirements of their load, which began in 2014 and that is projected to continue through 2033, with an option to extend the contract through 2053. Forecasted NEL for Lee County is based on customer-supplied information and historical usage trends.

FPL sales to New Smyrna Beach began in February 2014. The contract is projected to continue through December 2021. Under a second contract, additional sales to New Smyrna Beach began in July 2017 and are also projected to continue through December 2021. Under a third contract, sales to New Smyrna again increased beginning in January 2019 and are projected to continue through December 2021.

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

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

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

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

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

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

FPL sales to Seminole Electric Cooperative began in June 2014 and are projected to continue through May 2021.

FPL sales to Jacksonville Electric Authority are expected to begin in January 2022 and continue through December 2041.

Gulf Power sales to Florida Public Utilities Company is projected to continue through December 2026.

II.D. Net Energy for Load (NEL)

The NEL forecasts for the combined system for the years 2022 through 2030 are the sums of the retail energy, wholesale energy, and losses projected for the separate systems. Through the use of the energy efficiency variable, the retail energy sales forecast includes the impacts from major energy efficiency codes and standards, including those associated with the 2005 National Energy Policy Act, the 2007 Energy Independence and Security Act, and savings resulting from the use of compact fluorescent bulbs (CFLs) and LEDs. The estimated impact from these codes and standards includes engineering estimates and any resulting behavioral changes. The impact of these savings began in 2005, and, from that year forward, their cumulative impact on NEL for the integrated system is projected to be a reduction of 11,108 GWh by 2030. This represents an almost 8% reduction in what the forecasted NEL for 2030 would have been absent these codes and standards. From the end of 2020, the incremental reduction through 2030 is expected to be 3,850 GWh. The estimated impacts from codes and standards are based on the energy efficiency variables in the respective energy models.

Collectively, this represents an extraordinary amount of energy efficiency on the combined system: energy efficiency that is not funded through ECCR rates paid by the general body of customers.

Adjustments were made to the NEL forecast to address the impact of incremental private (customer owned) solar projected to be added during the forecast period. The impact of private solar on the NEL forecast for the integrated system is projected to be a reduction of approximately 2,000 GWh by 2030. Adjustments also were made for the additional load projected to be added due to the incremental adoption of new plug-in electric vehicles. This results in an increase on the integrated system of approximately 2,760 GWh by 2030. The forecast is also adjusted for the incremental load projected to be added from FPL's economic development riders forecast. This incremental load is projected to be approximately 461 GWh by 2030.

The combined NEL impacts of the adjustments for private solar, electric vehicle, and economic development tariffs is an incremental increase of approximately 1,200 GWh by the end of the Site Plan forecast period, compared to the incremental increase of approximately 600 GWh in the prior Site Plan. The higher incremental increase in this Site Plan is due to greater load additions from plug-in electric vehicles and economic development riders, offset by greater reductions from private solar.

II.E. System Peak Forecasts

The rate of absolute growth in peak load in both the current FPL and Gulf service areas has been a function of the size of the customer base, weather, projected economic conditions, and energy-efficiency codes and standards. The peak forecast models capture these behavioral relationships. The peak forecast also reflects changes in load expected from private solar and the expected impacts from plug-in electric vehicles. Additionally, peak forecasts also reflect the impacts of economic development riders, and wholesale requirements contracts.

The monthly peak load for the integrated system from 2022 and beyond is the highest hourly demand from the forecasted system hourly load forecast, which was developed by summing the forecasted system hourly loads for FPL and Gulf, after adjusting Gulf's load to reflect Eastern time zone. The integrated system peak load forecast reflects the growth in peak load for FPL and Gulf along with the lower peak demand for the integrated system that results from load diversity.

When viewed as separate systems or regions, the loads peak at different times which results in load diversity, primarily due to being located in different time zones. The benefit of load diversity is that the combined system peak demand is lower than the sum of standalone FPL and Gulf peak demands. By 2030, the load diversity results in a projected reduction to the integrated system peaks of 162 MW in the Summer and 295 MW in the Winter. This represents potential cost savings for customers because fewer future resources will need to be added to meet the lower peak load for the integrated system.

The savings from energy-efficiency codes and standards incorporated into the peak forecast include the impacts from the 2005 National Energy Policy Act, the 2007 Energy Independence and Security Act, and the use of CFLs and LEDs. The impact from these energy-efficiency standards began in 2005, and their cumulative reduction, from that year, on the integrated Summer peak is projected to reach approximately 5,332 MW by 2030. This reduction includes engineering estimates and any resulting behavioral changes.

For the integrated system, the cumulative 2030 impacts from these energy-efficiency codes and standards are projected to effectively reduce the Summer peak by approximately 17% and the Winter peak by approximately 4% for that year. From the end of 2020 through 2030, the projected incremental impacts from these energy-efficiency codes and standards are a reduction on the Summer peak of approximately 1,480 MW and a reduction on the Winter peak of approximately 410 MW.

As noted previously, the peak forecast for FPL was also adjusted for the additional load estimated from private solar, plug-in electric vehicles, and FPL's economic development riders. The impact from plug-in electric vehicles is projected to be an increase on the integrated system of approximately 933 MW[8] in the Summer and 333 MW in the Winter by the end of 2030. The impact on the integrated system from FPL's economic development riders is projected to be an increase of approximately 56 MW in the Summer peak and 57 MW in the Winter peak. The incremental impact of private solar on the integrated system is an expected decrease of approximately 437 MW in the Summer and 56 MW in the Winter by the end of 2030.

The forecasting methodology for Summer, Winter, and monthly system peaks is discussed below.

[8] Excluding plug-in electric vehicle impacts, Summer peak demand growth averages approximately 330 MW per year. The 933 MW impact from EVs is roughly equivalent to 3 years of Summer peak demand growth without EVs.

The forecasted values for the Summer and Winter peak loads for the year 2021 are presented separately at the end of this chapter in Schedules 3.1 and 3.2, and in Chapter III in Schedules 7.1 and 7.2. For the years 2022 through 2030, only forecasted values for the integrated system are presented on these schedules.

1. System Summer Peak

The Summer peak forecast for FPL is developed using an econometric model based on the Summer peak contribution per customer. The variables included in the model are Florida employment, the maximum temperature on the day of the peak, the minimum temperature on the peak day, a variable for energy efficiency codes and standards, a binary variable for year 2019, and an autoregressive term. The model output is multiplied by the total number of customers to arrive at the projected Summer peak demand. This product is then adjusted to account for the expected changes in loads resulting from private solar, plug-in electric vehicles, FPL's economic development riders, and wholesale requirements contracts to derive FPL's system Summer peak.

The Summer peak forecast for Gulf is also developed using an econometric model based on the Summer peak contribution per customer. The variables included in the model are the cooling degree hours for the peak day, a variable for energy efficiency codes and standards, employment-weighted real per capita income, and a moving average term. The model output is multiplied by the total number of customers to arrive at the projected Summer peak demand. This product is then adjusted to account for the expected changes in loads resulting from private solar and plug-in electric vehicles.

The Summer peak demand forecast for the integrated system for 2022-on is the highest hourly demand during the Summer months from the integrated system hourly forecast which was developed by summing the forecasted system hourly loads for FPL and Gulf, then accounting for diversity in load between the two areas. This approach ensures the Summer peak demand forecast for the integrated system reflects the growth in Summer peak load for FPL and Gulf along with the previously mentioned Summer peak demand reduction associated with load diversity. The Summer peak demand for the integrated system is projected to occur in August.

2. System Winter Peak

The Winter peak forecast for FPL is developed using an econometric model based on the Winter peak contribution per customer. The variables included in the model are Florida employment, the minimum temperature on the peak day, a weather-related variable

capturing cold buildup, binary variables for 2008, 2020, and to account for the lack of a Winter post-2011. The model output is multiplied by the total number of customers to arrive at the projected Winter peak demand. The projection is then adjusted for the expected changes in loads resulting from private solar, plug-in electric vehicles, FPL's economic development riders, and wholesale requirement contracts.

The Winter peak forecast for Gulf was developed using an econometric model based on the Winter peak. The variables included in the model are the minimum temperature on the peak day, number of customers, a variable for energy efficiency codes and standards, a binary variable for 2017, and two moving average terms. The model output is then adjusted for the expected changes in loads resulting from private solar and plug-in electric vehicles.

The Winter peak demand forecast for the integrated system is the highest hourly demand during the Winter months from the integrated system hourly forecast. This approach ensures the integrated Winter peak demand forecast reflects the growth in the Winter peak load for FPL and Gulf along with the previously mentioned Winter peak demand reduction associated with load diversity. The Winter peak demand for the integrated system is projected to occur in January.

3. Monthly Peak Forecasts

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

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

The monthly peak demand forecast for the integrated system for 2022 and beyond is the highest hourly demand by month from the integrated system hourly forecast. This approach ensures the integrated monthly peak demand forecast reflects the growth in monthly peaks for FPL and Gulf along with the monthly peak demand reductions associated with load diversity.

II.F. Hourly Load Forecast

Forecasted values for system hourly load on the FPL system for the period 2021 through 2030 were developed using a system load forecasting program named MetrixLT. This model uses years of historical FPL hourly system load data to develop load shapes. The model generates a projection of hourly load values based on these load shapes and the forecast of FPL's monthly peaks and energy.

Forecasted values for system hourly load on the Gulf system for the period 2021 to 2030 were also developed using MetrixLT, which uses historical Gulf hourly system load data to develop load shapes. The model generates a projection of hourly load values based on these load shapes and the forecast of Gulf's monthly peaks and energies.

The forecasted values for system hourly load on the integrated system for 2022 and beyond were the summation of the FPL and Gulf hourly load for the period. The Gulf system hourly load was adjusted from Central to Eastern time zone to be consistent with FPL's system hourly load.

II.G. Uncertainty

Uncertainty is inherent in the load forecasting process. This uncertainty can result from a number of factors, including unexpected changes in consumer behavior, structural shifts in the economy, economic/business cycles, and fluctuating weather conditions. Large weather fluctuations, in particular, can result in significant deviations between actual and forecasted peak demands. The load forecast is based on average expected or normal weather conditions. An extreme 90% probability (P90) cold weather event can add an additional 3,100 MW or more to the Winter peak, and an extreme P90 hot weather event can add an additional 750 MW to the Summer peak.

In order to address uncertainty in the forecast of aggregate peak demand and NEL, the assumptions underlying the forecasts are first evaluated. Then a series of steps are taken to evaluate the input variables, including comparing projections from different sources, identifying

outliers in the series, and assessing the series' consistency with past forecasts. Additional factors that may affect the input variables are reviewed as needed.

Uncertainty is also addressed in the modeling process. Econometric models generally are used to forecast peak demands and energies. During the modeling process, relevant statistics such as (goodness of fit, P-values, mean absolute percentage error (MAPE), etc.) are scrutinized to ensure the models adequately explain historical variation. Once a forecast is developed, it is compared with past forecasts. Deviations from past forecasts are examined in light of changes in input assumptions to ensure that the drivers underlying the forecast are thoroughly understood. Finally, forecasts of aggregate peak demand and NEL are compared with the actual values as they become available. An ongoing process of variance analyses is performed. To the extent the variance analyses identify large unexplained deviations between the forecast and actual values, revisions to the econometric model may be considered. Finally, the forecasting group regularly engages with forecasting professionals from other electric utilities to share best practices and changes to existing processes may be considered.

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

II.H. DSM

FPL and Gulf assume that the effects of its DSM energy-efficiency programs through August 2020 are embedded in the actual usage data for forecasting purposes. In addition, the utilities account for the following projected DSM MW and MWh impacts as "line item reductions" to the forecasts as part of the IRP process: 1) the impacts of incremental energy efficiency that the utilities have implemented after the 2020 Summer peaks have occurred, 2) projected impacts from incremental energy efficiency and load management that FPL plans to implement in 2021 through 2024 in response to the DSM Goals that were set for each utility by the FPSC in the 4th Quarter of 2019 for the 2020 – 2024 time period, 3) the inclusion of additional recently projected

cost-effective DSM for the years 2025 through 2030, and 4) the impacts from previous signups in FPL's load management programs that will continue through 2030. After making these adjustments to the load forecasted load values, the resulting "firm" load forecast as shown in Chapter III in Schedules 7.1 and 7.2., is then used in the IRP work.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Rural & Residential			Commercial		
Year	Population	Members per Household	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	Average No. of Customers	Average kWh Consumption Per Customer
2011	8,981,155	2.23	54,642	4,026,760	13,570	45,052	508,005	88,685
2012	9,097,904	2.25	53,434	4,052,174	13,187	45,220	511,887	88,340
2013	9,221,477	2.25	53,930	4,097,172	13,163	45,341	516,500	87,786
2014	9,358,961	2.24	55,202	4,169,028	13,241	45,684	525,591	86,919
2015	9,519,694	2.25	58,846	4,227,425	13,920	47,369	532,731	88,916
2016	9,689,339	2.26	58,687	4,284,159	13,699	47,355	540,356	87,637
2017	9,826,767	2.27	58,188	4,338,224	13,413	47,151	547,908	86,056
2018	9,946,681	2.26	59,096	4,391,832	13,456	47,394	553,562	85,616
2019	10,120,656	2.26	60,325	4,479,356	13,467	48,078	565,622	85,000
2020	10,232,403	2.25	63,743	4,548,301	14,015	46,161	571,587	80,759

Historical Values (2011 - 2020):

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

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Rural & Residential			Commercial		
Year	Population	Members per Household	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	Average No. of Customers	Average kWh Consumption Per Customer
2011	783,086	2.07	5,305	378,157	14,028	3,911	53,409	73,235
2012	796,615	2.10	5,054	379,897	13,303	3,859	53,706	71,846
2013	807,336	2.11	5,089	382,599	13,301	3,810	54,261	70,215
2014	816,658	2.11	5,362	386,765	13,865	3,838	54,749	70,104
2015	827,402	2.11	5,365	391,465	13,705	3,898	55,234	70,566
2016	837,653	2.11	5,358	396,408	13,515	3,869	55,876	69,236
2017	848,315	2.11	5,229	401,793	13,015	3,814	56,428	67,583
2018	860,462	2.11	5,519	406,949	13,563	3,829	56,892	67,298
2019	870,216	2.14	5,520	407,436	13,548	3,775	56,590	66,710
2020	878,190	2.13	5,454	412,526	13,222	3,524	57,274	61,522

Historical Values (2011 - 2020):

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

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			Rural & Residential			Commercial		
Year	Population	Members per Household	GWh	Average No. of Customers	Average kWh Consumption Per Customer	GWh	Average No. of Customers	Average kWh Consumption Per Customer
FPL								
2021	10,345,411	2.25	60,010	4,594,396	13,062	47,364	576,415	82,170
Gulf								
2021	885,783	2.13	5,435	416,314	13,054	3,686	57,549	64,055
Integrated FPL and Gulf								
2022	11,354,103	2.24	65,421	5,057,606	12,935	51,488	640,371	80,404
2023	11,477,158	2.24	65,688	5,117,117	12,844	51,996	648,333	80,199
2024	11,600,925	2.24	66,154	5,179,421	12,799	52,552	656,481	80,050
2025	11,724,498	2.24	66,775	5,239,103	12,790	52,988	664,254	79,770
2026	11,847,341	2.24	67,369	5,297,595	12,767	53,334	671,478	79,428
2027	11,970,241	2.23	68,239	5,357,225	12,792	53,697	678,569	79,132
2028	12,092,784	2.23	69,336	5,417,530	12,857	54,060	685,752	78,833
2029	12,215,401	2.23	70,533	5,477,700	12,946	54,401	692,967	78,504
2030	12,338,672	2.23	71,893	5,537,659	13,049	54,685	700,185	78,101

Projected Values (2021 - 2030):

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

Col. (4) and Col. (7) represent forecasted energy sales including the impact of incremental conservation. These values are at the meter.

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

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Industrial			Railroads &	Street & Highway	Sales to Public	Sales to Ultimate
Year	GWh	Average No. of Customers	Average kWh Consumption Per Customer	Railways GWh	Lighting GWh	Authorities GWh	Consumers GWh
2011	3,086	8,691	355,104	82	437	27	103,327
2012	3,024	8,743	345,871	81	441	25	102,226
2013	2,956	9,541	309,772	88	442	28	102,784
2014	2,941	10,415	282,398	91	446	24	104,389
2015	3,042	11,318	268,799	92	448	23	109,820
2016	3,059	11,770	259,853	92	447	23	109,663
2017	2,961	11,654	254,103	83	446	41	108,871
2018	3,013	11,601	259,728	80	447	23	110,053
2019	2,994	11,799	253,759	82	428	23	111,929
2020	3,119	11,999	259,969	71	417	20	113,531

Historical Values (2011 - 2020):

Col. (16) represents actual energy sales including the impacts of existing conservation. These values are at the meter.

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

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

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Industrial			Railroads &	Street & Highway	Sales to Public	Sales to Ultimate
Year	GWh	Average No. of Customers	Average kWh Consumption Per Customer	Railways GWh	Lighting GWh	Authorities GWh	Consumers GWh
2011	1,799	273	6,586,591	0	25	0	11,040
2012	1,725	267	6,453,071	0	25	0	10,663
2013	1,700	258	6,581,320	0	21	0	10,620
2014	1,849	258	7,165,343	0	25	0	11,075
2015	1,798	249	7,235,499	0	25	0	11,086
2016	1,830	247	7,402,625	0	25	0	11,082
2017	1,740	255	6,815,486	0	26	0	10,809
2018	1,757	253	6,931,497	0	28	0	11,132
2019	1,756	250	7,026,958	0	28	0	11,079
2020	1,630	245	6,655,757	0	28	0	10,635

Historical Values (2011 - 2020):

Col. (16) represents actual energy sales including the impacts of existing conservation. These values are at the meter.

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

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

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

(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Industrial			Railroads &	Street & Highway	Sales to Public	Sales to Ultimate
Year	GWh	Average No. of Customers	Average kWh Consumption Per Customer	Railways GWh	Lighting GWh	Authorities GWh	Consumers GWh
FPL							
2021	3,122	12,692	245,941	84	375	20	110,975
Gulf							
2021	1,703	245	6,949,006	0	23	0	10,846
Integrated FPL and Gulf							
2022	4,858	13,115	370,383	85	362	20	122,233
2023	5,006	13,194	379,399	85	337	20	123,131
2024	5,007	13,286	376,840	85	319	20	124,136
2025	5,060	13,387	377,998	85	312	20	125,240
2026	5,061	13,450	376,268	85	303	20	126,172
2027	5,060	13,405	377,506	85	303	20	127,404
2028	5,060	13,319	379,907	85	303	20	128,864
2029	5,059	13,253	381,759	85	303	20	130,401
2030	5,059	13,209	383,000	85	303	20	132,045

Projected Values (2021 - 2030):

Col. (10) and Col.(15) represent forecasted energy sales including the impact of incremental conservation. These values are at the meter.

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

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

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

(1)	(17)	(18)	(19)	(20)	(21)
Year	Sales for Resale GWh	Utility Use & Losses GWh	Net Energy For Load GWh	Average No. of Other Customers	Total Average Number of Customers
2011	2,176	6,950	112,454	3,596	4,547,051
2012	2,237	6,403	110,866	3,645	4,576,449
2013	2,158	6,713	111,655	3,722	4,626,934
2014	5,375	6,204	115,968	3,795	4,708,829
2015	6,610	6,326	122,756	3,907	4,775,382
2016	6,623	5,334	121,619	3,994	4,840,279
2017	6,406	5,468	120,745	4,100	4,901,886
2018	6,790	5,604	122,447	4,334	4,961,330
2019	7,315	5,924	125,168	4,749	5,061,525
2020	8,210	5,777	127,519	5,108	5,136,995

Historical Values (2011 - 2020):

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

Col. (19) = Schedule 2.2 Col. (16) + Col. (17) + Col. (18). Historical NEL includes the impacts of existing conservation and agrees to Col. (5) on schedule 3.3. Historical GWH, prior to 2011, are based on a fiscal year beginning 12/29 and ending 12/28. The 2011 value is based on 12/29/10 to 12/31/11. The 2012-2019 values are based on calendar year.

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

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

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

(1)	(17)	(18)	(19)	(20)	(21)
Year	Sales for Resale GWh	Utility Use & Losses GWh	Net Energy For Load GWh	Average No. of Other Customers	Total Average Number of Customers
2011	382	663	12,086	564	432,403
2012	339	597	11,598	572	434,441
2013	330	602	11,552	579	437,698
2014	332	629	12,037	598	442,370
2015	330	580	11,996	610	447,557
2016	331	618	12,030	609	453,140
2017	318	588	11,715	574	459,050
2018	302	623	12,057	589	464,682
2019	257	661	11,997	608	464,884
2020	292	736	11,664	635	470,680

Historical Values (2011 - 2020):

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

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

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

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

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

(1)	(17)	(18)	(19)	(20)	(21)
Year	Sales for Resale GWh	Utility Use & Losses GWh	Net Energy For Load GWh	Average No. of Other Customers	Total Average Number of Customers
			FPL		
2021	6,740	5,324	123,038	5,439	5,188,943
			Gulf		
2021	288	619	11,754	633	474,741
			Integrated FPL and Gulf		
2022	7,130	6,216	135,579	6,442	5,717,534
2023	7,281	6,174	136,586	6,814	5,785,456
2024	7,195	6,172	137,503	7,184	5,856,372
2025	7,265	6,213	138,719	7,556	5,924,300
2026	7,323	6,257	139,751	7,725	5,990,248
2027	6,943	6,311	140,659	7,721	6,056,920
2028	7,061	6,400	142,324	7,721	6,124,321
2029	7,084	6,473	143,958	7,721	6,191,640
2030	7,209	6,563	145,816	7,721	6,258,775

Projected Values (2021 - 2030):

Col. (19) represents forecasted energy sales including the impact of incremental conservation and agrees to Col. (5) on Schedule 3.3.

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

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

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

Schedule 3.1: FPL
History of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2011	21,619	427	21,192	0	1,000	1,281	821	781	19,798
2012	21,440	431	21,009	0	1,013	1,351	833	810	19,594
2013	21,576	396	21,180	0	1,025	1,417	833	839	19,718
2014	22,935	1,155	21,780	0	1,010	1,494	843	866	21,082
2015	22,959	1,303	21,656	0	878	1,523	826	873	21,255
2016	23,858	1,367	22,491	0	882	1,548	836	888	22,140
2017	23,373	1,393	21,980	0	910	1,560	825	903	21,639
2018	23,217	1,338	21,879	0	866	1,571	866	916	21,485
2019	24,241	1,292	22,949	0	852	1,579	879	926	22,510
2020	24,499	1,530	22,969	0	845	1,589	887	940	22,767

Historical Values (2011 - 2020):

Col. (2) and Col. (3) are actual values for historical Summer peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9) and may incorporate the effects of load control if load control was operated on these peak days. Col. (2) represents the actual Net Firm Demand.

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

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

Col. (10) represents a hypothetical "Net Firm Demand" as if the load control values had definitely been exercised on the peak.
Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col.(6) + Col. (8).

FPL's Summer Peak load in 2020 occurred in June.

Schedule 3.1: Gulf
History of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2011	2,535	89	2,446	0	0	186	0	198	2,535
2012	2,351	76	2,275	0	0	206	0	212	2,351
2013	2,362	74	2,288	0	0	229	0	220	2,362
2014	2,437	75	2,362	0	0	243	0	224	2,437
2015	2,495	78	2,417	0	0	256	0	231	2,495
2016	2,508	76	2,432	0	0	261	0	231	2,508
2017	2,434	74	2,360	0	0	266	0	232	2,434
2018	2,491	80	2,411	0	0	268	0	233	2,491
2019	2,472	75	2,397	0	0	270	0	234	2,472
2020	2,410	65	2,345	0	0	272	0	234	2,410

Historical Values (2011 - 2020):

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

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

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

Schedule 3.1
Forecast of Summer Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
August of Year	Total	Wholesale	Retail	Interruptible	Res. Load Management*	Residential Conservation	C/I Load Management*	C/I Conservation	Net Firm Demand
FPL									
2021	24,620	1,368	23,252	0	857	14	934	17	22,799
Gulf									
2021	2,462	61	2,401	0	0	5	0	1	2,455
Integrated FPL and Gulf									
2022	27,277	1,582	25,695	0	867	39	945	35	25,392
2023	27,771	1,606	26,166	0	874	60	956	54	25,828
2024	28,278	1,599	26,680	0	885	82	966	73	26,272
2025	28,675	1,605	27,070	0	904	89	977	80	26,625
2026	29,051	1,626	27,425	0	927	89	988	80	26,967
2027	29,340	1,558	27,781	0	950	89	999	80	27,221
2028	29,721	1,582	28,139	0	973	89	1,011	80	27,568
2029	30,233	1,605	28,628	0	996	89	1,022	80	28,047
2030	30,832	1,631	29,201	0	1,019	89	1,033	80	28,612

Projected Values (2021 - 2030):

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

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

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

Col. (10) represents a "Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2011	21,126	383	20,743	0	903	717	723	303	19,501
2012	17,934	382	17,552	0	856	755	722	314	16,356
2013	15,931	348	15,583	0	843	781	567	326	14,521
2014	17,500	890	16,610	0	828	805	590	337	16,083
2015	19,718	1,329	18,389	0	822	835	551	346	18,345
2016	17,031	1,087	15,944	0	742	858	570	352	15,719
2017	17,172	1,098	16,074	0	759	861	577	364	15,836
2018	19,109	1,262	17,847	0	750	864	588	369	17,771
2019	16,795	1,432	15,363	0	706	867	613	379	15,476
2020	17,514	1,243	16,271	0	702	870	614	390	16,197

Historical Values (2011 - 2020):

Col. (2) and Col. (3) are actual values for historical Winter peaks. As such, they incorporate the effects of conservation (Col. 7 & Col. 9) and may incorporate the effects of load control if load control was operated on these peak days. Col. (2) represents the actual Net Firm Demand. For year 2011, the actual winter peak occurred in December of 2010.

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

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

Col. (10) represents a hypothetical "Net Firm Demand" as if the load control values had definitely been exercised on the peak.
Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col.(6) + Col. (8).

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management	Residential Conservation	C/I Load Management	C/I Conservation	Net Firm Demand
2011	2,495	89	2,406	0	0	297	0	157	2,495
2012	2,139	70	2,069	0	0	317	0	165	2,139
2013	1,766	90	1,676	0	0	341	0	169	1,766
2014	2,694	85	2,609	0	0	356	0	172	2,694
2015	2,492	74	2,418	0	0	369	0	176	2,492
2016	2,043	80	1,963	0	0	374	0	176	2,043
2017	2,211	89	2,122	0	0	377	0	177	2,211
2018	2,809	70	2,739	0	0	379	0	178	2,809
2019	2,066	66	2,000	0	0	381	0	178	2,066
2020	2,129	69	2,060	0	0	382	0	178	2,129

Historical Values (2011 - 2020):

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

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

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

Schedule 3.2
Forecast of Winter Peak Demand (MW)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
January of Year	Total	Firm Wholesale	Retail	Interruptible	Res. Load Management*	Residential Conservation	C/I Load Management*	C/I Conservation	Net Firm Demand
FPL									
2021	20,061	1,214	18,847	0	711	2	651	5	18,692
Gulf									
2021	2,439	64	2,375	0	0	0	0	0	2,438
Integrated FPL and Gulf									
2022	22,461	1,236	21,225	0	723	9	658	17	21,055
2023	22,869	1,277	21,592	0	734	16	664	29	21,426
2024	23,287	1,310	21,976	0	744	24	671	42	21,805
2025	23,624	1,313	22,311	0	763	33	677	54	22,098
2026	23,957	1,347	22,610	0	787	33	682	54	22,401
2027	24,199	1,296	22,903	0	811	33	687	54	22,614
2028	24,552	1,336	23,216	0	835	33	693	54	22,938
2029	24,916	1,378	23,537	0	859	33	698	54	23,272
2030	25,289	1,422	23,866	0	883	33	703	54	23,615

Projected Values (2021 - 2030):

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

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

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

Col. (10) represents a "Net Firm Demand" which accounts for all of the incremental conservation and assumes all of the load control is implemented on the peak. Col. (10) is derived by the formula: Col. (10) = Col. (2) - Col. (5) - Col. (6) - Col. (7) - Col. (8) - Col. (9).

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Net Energy For Load without DSM GWh	Residential Conservation GWh	C/I Conservation GWh	Actual Net Energy For Load GWh	Sales for Resale GWh	Utility Use & Losses GWh	Actual Total Retail Sales (GWh)	Load Factor(%)
2011	117,460	2,683	2,324	112,454	2,176	6,950	103,327	59.4%
2012	116,083	2,823	2,394	110,866	2,237	6,403	102,226	58.9%
2013	117,087	2,962	2,469	111,655	2,158	6,713	102,784	59.1%
2014	121,621	3,125	2,529	115,968	5,375	6,204	104,389	57.7%
2015	128,555	3,232	2,568	122,756	6,610	6,326	109,820	61.0%
2016	127,481	3,254	2,608	121,619	6,623	5,334	109,663	58.0%
2017	126,678	3,278	2,655	120,745	6,406	5,468	108,871	59.0%
2018	128,465	3,300	2,718	122,447	6,790	5,604	110,053	60.2%
2019	131,241	3,322	2,751	125,168	7,315	5,924	111,929	58.9%
2020	133,642	3,342	2,781	127,519	8,210	5,777	113,531	59.3%

Historical Values (2011 - 2020):

Col. (2) represents derived NEL not including conservation using the formula: Col. (2) = Col. (3) + Col. (4) + Col. (5)

Col. (3) & Col. (4) are annual (12-month) DSM values and represent total GWh reductions experienced each year.

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

Col. (9) is calculated using Col. (5) from this page and the greater of Col. (2) from Schedules 3.1 and 3.2 using the formula:
Col. (9) = ((Col. (5)*1000) / ((Col. (2) * 8760). Adjustments are made for leap years.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Net Energy For Load without DSM GWh	Residential Conservation GWh	C/I Conservation GWh	Actual Net Energy For Load GWh	Sales for Resale GWh	Utility Use & Losses GWh	Total Retail Energy Sales (GWh)	Load Factor(%)
2011	12,864	417	361	12,086	382	663	11,040	54.4%
2012	12,453	482	374	11,598	339	597	10,663	56.2%
2013	12,502	551	399	11,552	330	602	10,620	55.8%
2014	13,048	595	416	12,037	332	629	11,075	51.0%
2015	13,056	630	430	11,996	330	580	11,086	54.9%
2016	13,097	637	430	12,030	331	618	11,082	54.6%
2017	12,789	642	432	11,715	318	588	10,809	54.9%
2018	13,138	647	435	12,057	302	623	11,132	49.0%
2019	13,083	650	436	11,997	257	661	11,079	55.4%
2020	12,755	653	438	11,664	292	736	10,635	55.1%

Historical Values (2011 - 2020):

Col. (2) represents derived NEL not including conservation using the formula: Col. (2) = Col. (3) + Col. (4) + Col. (5)

Col. (3) & Col. (4) are annual (12-month) DSM values and represent total GWh reductions experienced each year.

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

Col. (9) is calculated using Col. (5) from this page and the greater of Col. (2) from Schedules 3.1 and 3.2 using the formula:
Col. (9) = ((Col. (5)*1000) / ((Col. (2) * 8760). Adjustments are made for leap years.

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Forecasted Net Energy For Load without DSM GWh	Residential Conservation GWh	C/I Conservation GWh	Net Energy For Load Adjusted for DSM GWh	Sales for Resale GWh	Utility Use & Losses GWh	Forecasted Total Billed Retail Energy Sales w/o DSM GWh	Load Factor(%)
FPL								
2021	123,120	35	47	123,038	6,740	5,324	111,056	57.0%
Gulf								
2021	11,771	14	3	11,754	288	619	10,863	54.5%
Integrated FPL and Gulf								
2022	135,744	82	82	135,579	7,130	6,216	122,398	56.7%
2023	136,818	116	116	136,586	7,281	6,174	123,363	56.1%
2024	137,806	152	151	137,503	7,195	6,172	124,439	55.4%
2025	139,022	152	151	138,719	7,265	6,213	125,544	55.2%
2026	140,055	152	151	139,751	7,323	6,257	126,475	54.9%
2027	140,962	152	151	140,659	6,943	6,311	127,708	54.7%
2028	142,628	152	151	142,324	7,061	6,400	129,167	54.5%
2029	144,262	152	151	143,958	7,084	6,473	130,704	54.4%
2030	146,120	152	151	145,816	7,209	6,563	132,349	54.0%

Projected Values (2021 - 2030):

Col. (2) represents Forecasted NEL and does not include incremental conservation. It is the summation of Cols. (3) through (5).

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

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

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

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

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2020 ACTUAL		2021 FORECAST		2022 FORECAST	
Month	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh
JAN	17,514	8,859	20,061	9,044	NA	NA
FEB	18,429	8,563	19,140	8,276	NA	NA
MAR	20,602	9,910	19,111	9,147	NA	NA
APR	21,594	10,234	20,466	9,575	NA	NA
MAY	21,932	10,607	22,323	10,859	NA	NA
JUN	24,499	11,962	23,727	11,370	NA	NA
JUL	24,483	12,648	24,200	12,197	NA	NA
AUG	24,166	13,014	24,620	12,321	NA	NA
SEP	24,493	11,854	23,658	11,428	NA	NA
OCT	22,214	11,502	22,204	10,731	NA	NA
NOV	19,496	9,629	19,618	9,118	NA	NA
DEC	15,773	8,735	18,694	9,053	NA	NA
Annual Values:		**127,519**		**123,120**	NA	NA

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

Cols. (4) through (5) do not include the impacts of cumulative load management, incremental utility conservation, or incremental load management.

Cols. (6) and (7) are available in the forecast for the integrated FPL and Gulf System for 2022

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2020 ACTUAL		2021 FORECAST		2022 FORECAST	
Month	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh
JAN	2,129	877	2,439	968	NA	NA
FEB	1,768	785	1,926	810	NA	NA
MAR	1,760	856	1,729	792	NA	NA
APR	1,807	783	1,730	816	NA	NA
MAY	2,077	958	2,138	998	NA	NA
JUN	2,318	1,156	2,360	1,166	NA	NA
JUL	2,392	1,245	2,462	1,261	NA	NA
AUG	2,410	1,253	2,409	1,232	NA	NA
SEP	2,394	1,033	2,272	1,083	NA	NA
OCT	2,076	964	2,002	910	NA	NA
NOV	1,666	813	1,714	823	NA	NA
DEC	2,068	942	1,892	912	NA	NA
Annual Values:		**11,664**		**11,771**	NA	NA

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

Cols. (4) through (5) do not include the impacts of incremental conservation.

Cols. (6) and (7) are available in the forecast for the integrated FPL and Gulf System for 2022

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

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2020 ACTUAL		2021 FORECAST		2022 FORECAST	
Month	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh	Total Peak Demand MW	NEL GWh
JAN	NA	NA	NA	NA	22,461	10,049
FEB	NA	NA	NA	NA	20,551	9,193
MAR	NA	NA	NA	NA	20,574	9,973
APR	NA	NA	NA	NA	22,020	10,381
MAY	NA	NA	NA	NA	24,550	11,864
JUN	NA	NA	NA	NA	26,327	12,651
JUL	NA	NA	NA	NA	26,755	13,556
AUG	NA	NA	NA	NA	27,277	13,634
SEP	NA	NA	NA	NA	26,171	12,604
OCT	NA	NA	NA	NA	24,259	11,751
NOV	NA	NA	NA	NA	21,273	10,023
DEC	NA	NA	NA	NA	20,318	10,064
Annual Values:		NA		NA		**135,744**

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

Cols. (6) and (7) do not include the impacts of cumulative load management, incremental utility conservation, or incremental load management.