City of Tallahassee
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CITY OF TALLAHASSEE
2026 TEN YEAR SITE PLAN

ELECTRICAL GENERATING FACILITIES AND ASSOCIATED TRANSMISSION LINES

Planning Period: 2026-2035

Contents

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Key Takeaways of the 2026 Ten Year Site Plan

The 2026 Load Forecast throughout the 2026-2035 planning period does not indicate a requirement for increasing firm capacity for the purpose of meeting demand and reserve margin. The plan includes no scheduled additions or retirements, therefore summer and winter firm capacities are unchanged in this Ten-Year Site Plan compared to last year's plan. Summer peaks in the historical period have not increased despite recent community growth due to energy efficiency and demand side measures. However severe winter storms and their associated peak loads have been close to record-setting loads for City of Tallahassee. Operating through recent winter storms reinforced the evidence that the addition of energy storage to the electric utility could reduce costs, increase short-duration capacity, decrease risk, and decrease dependence on natural gas.

Chapter I: Description of Existing Facilities

1.0 Introduction

The City of Tallahassee ("City") owns, operates, and maintains an electric generation, transmission, and distribution system that supplies electric power in and around the corporate limits of the City. The City was incorporated in 1825 and has operated since 1919 under the same charter. The City began generating its power requirements in 1902 and the City's Electric Utility presently serves approximately 124,000 customers located within a 221 square mile service territory (see Figure A). The Electric Utility operates three generating stations and purchases power from two solar farms with a total summer season net generating capacity of 737 megawatts (MW).

The City has three primarily natural gas fueled generating stations, with combined cycle (CC), combustion turbine (CT) and reciprocating internal combustion engine (RICE or IC) electric generating facilities. The Sam O. Purdom Generating Station, located in the City of St. Marks, Florida has been in operation since 1952; the Arvah B. Hopkins Generating Station, located on Geddie Road west of the City, has been in commercial operation since 1970; and the Substation 12 Distributed Generation Facility, located on Medical Drive, has been in operation since 2018.

The City contracted for 100% of the energy output from two solar farms through Power Purchase Agreements. Both solar farms are located on City property adjacent to the Tallahassee International Airport. Solar Farm 1 has been in operation since 2017, while Solar Farm 4 was brought online in 2019.

1.1 System Capability

The City maintains four points of interconnection with Duke Energy Florida ("Duke"); one at 69 kV, two at 115 kV, and one at 230 kV; and a 230 kV interconnection with Georgia Power Company (a subsidiary of the Southern Company ("Southern")).

As shown in Table 1.1 (Schedule 1), 222 MW (net summer rating) of CC generation is located at the City's Sam O. Purdom Generating Station. The Arvah B. Hopkins Generating Station includes 300 MW (net summer rating) of CC generation, 92 MW (net summer rating) of CT generation and 92 MW (net summer rating) of RICE generation. The Substation 12 Distributed Generation Facility includes 18 MW (net summer rating) of RICE generation. The CC and CT units can be fired on either natural gas or diesel oil but cannot burn these fuels concurrently. The RICE generators can only be fired on natural gas.

The solar farms consist of 62MW of total nameplate solar PV. Solar Farm 1 is 20MW of nameplate solar PV, while Solar Farm 4 has 42MW of nameplate solar PV. The City has conducted analyses of the output of the solar facilities and while an average of approximately 50% of the facilities' total rated capacity has been available during summer peak and near peak hours, the City has elected to utilize a conservative estimate of 20% of the rated capacity as firm capacity available for the summer peak. The City will continue to review and, if appropriate, revise the assumed firm contribution from its solar power supply resources.

As of December 31, 2025 the City's total net summer capability is 737 MW. The corresponding winter net peak installed generating capability is 795 MW. Table 1.1 contains the details of the individual generating units.

1.2 Purchased Power Agreements (PPA)

The City has two long-term Power Purchase Agreements inside the City of Tallahassee Balancing Area. Solar Farm 1 (FL Solar 1, LLC) and Solar Farm 4 (FL Solar 4, LLC) are both located adjacent to the Tallahassee International Airport. Solar Farm 1 is 20MW connected at distribution voltage. Solar Farm 4 is 42 MW interconnected to the 230 kV transmission system. The solar farms were brought online in 2017 and 2019, respectively.

For City customers served by the Talquin electric system, firm retail electric service is purchased from and provided by the Talquin Electric Cooperative ("Talquin"). Similarly, firm retail electric service is sold to and provided by the City to Talquin customers served by the City electric system. Reciprocal service will continue to be provided to all Talquin customers currently served by the City electric system. Payments for electric service provided to and received from Talquin and the transfer of customers and electric facilities is governed by the territorial agreement between the City and Talquin.

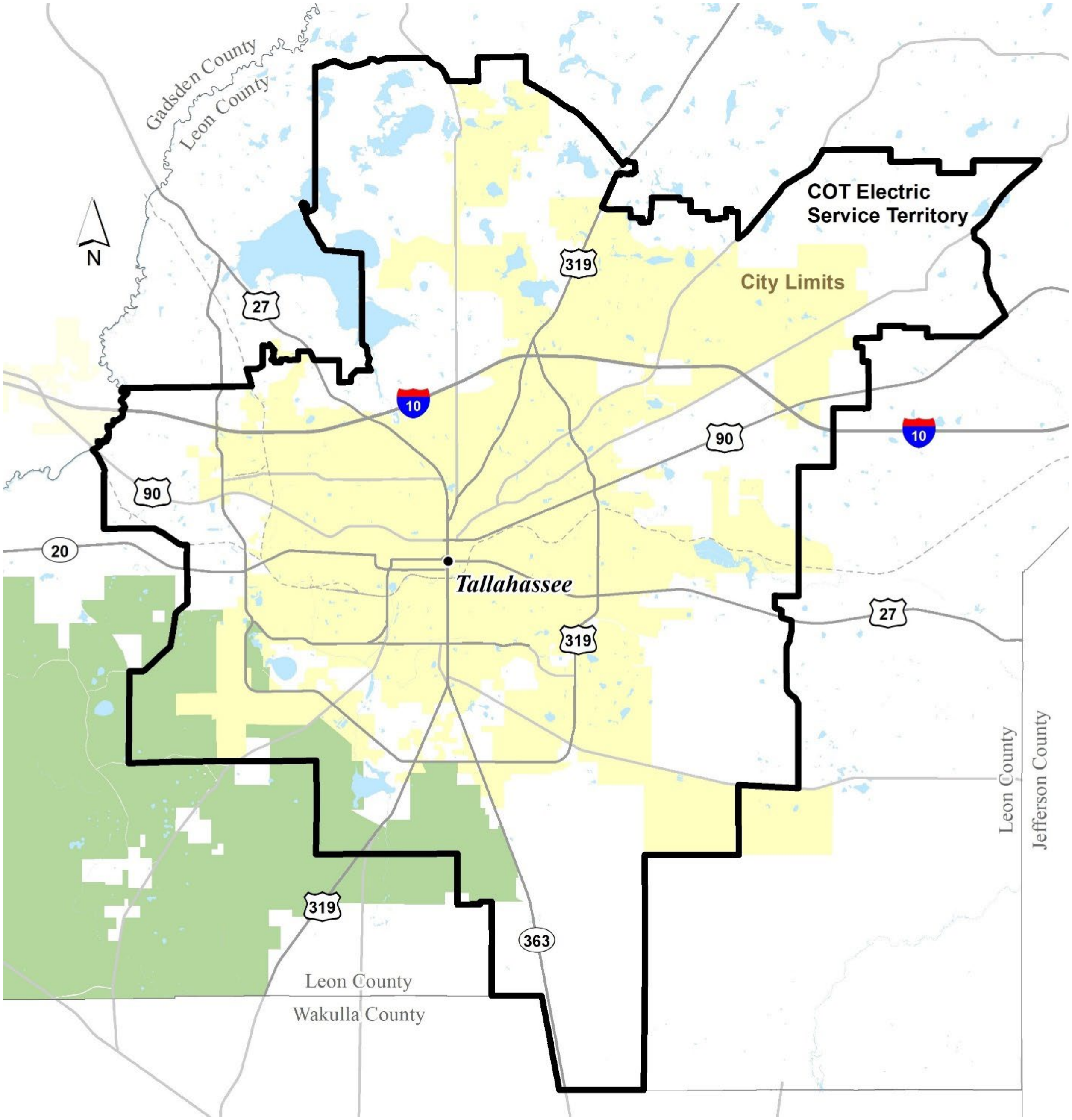


Figure 1: City of Tallahassee Utilities Electric Service Territory Map

City Of Tallahassee

Schedule 1
Existing Generating Facilities and Power Purchase Agreements
As of December 31, 2025

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
								Alt.				Net Capability		
	Unit		Unit	Fuel		Fuel Transport		Fuel Days	Commercial In-Service	Expected Retirement	Gen. Max. Nameplate	Summer	Winter	
Plant	No.	Location	Type	Primary	Alternate	Primary	Alternate	Use	Month/Year	Month/Year	(kW)	(MW)	(MW)	
S. O. Purdom	8	Wakulla	CC	NG	FO2	PL	TK	[1, 2]	7/00	12/40	270,100	222.0	258.0	[5]
											Plant Total	222.0	258.0	
A. B. Hopkins	2	Leon	CC	NG	FO2	PL	TK	[2]	6/08 [3]	6/48	458,100 [4]	300.0	330.0	[5]
	GT-3		GT	NG	FO2	PL	TK	[2]	9/05	9/45	60,500	46.0	48.0	
	GT-4		GT	NG	FO2	PL	TK	[2]	11/05	11/45	60,500	46.0	48.0	
	IC-1		IC	NG	NA	PL	TK	[2]	3/19	3/49	18,800	18.5	18.5	
	IC-2		IC	NG	NA	PL	TK	[2]	2/19	2/49	18,800	18.5	18.5	
	IC-3		IC	NG	NA	PL	TK	[2]	2/19	2/49	18,800	18.5	18.5	
	IC-4		IC	NG	NA	PL	TK	[2]	2/19	2/49	18,800	18.5	18.5	
	IC-5		IC	NG	NA	PL	TK	[2]	4/20	4/50	18,800	18.5	18.5	
											Plant Total	484.50	518.5	
Substation 12	IC-1	Leon	IC	NG	NA	PL	TK	NA	10/18	10/48	9,300	9.2	9.2	
	IC-2		IC	NG	NA	PL	TK	NA	10/18	10/48	9,300	9.2	9.2	
											Plant Total	18.4	18.4	
Airport Solar	SF1	Leon	PV	Solar	NA	NA	NA	NA	12/17	12/58	20,000	4.0	0.0	
	SF4		PV	Solar	NA	NA	NA	NA	12/19	12/59	42,000	8.4	0.0	
									Total System Capacity as of December 31, 2023			**737**	**795**	

[1] Due to the Purdom facility-wide emissions caps, utilization of liquid fuel at this facility is limited.

[2] The City maintains a minimum distillate fuel oil storage capacity sufficient to operate the Purdom plant approximately 9 days and the Hopkins plant and approximately 3 days

[3] Reflects the commercial operations date of Hopkins 2 repowered to a combined cycle generating unit with a new General Electric Frame 7A combustion turbine. The original commercial operations date of the existing steam turbine generator was October 1977.

[4] Hopkins 2 nameplate rating is the sum of the combustion turbine generator (CTG) nameplate rating of 198.9 MW and steam turbine generator (STG) nameplate rating of 259.2 MW. However, in the current 1x1 combined cycle (CC) configuration with supplemental duct firing the repowered STG's maximum output is steam limited to about 150 MW.

[5] Summer and winter ratings are based on 95 °F and 29 °F ambient temperature, respectively.

Chapter II: Forecast of Energy/Demand Requirements and Fuel Utilization

2.0 Introduction

Chapter II includes the City's forecasts of demand and energy requirements, energy sources and fuel requirements. This chapter also explains the impacts attributable to the City's current Demand Side Management (DSM) plan. The City is not subject to the requirements of the Florida Energy Efficiency and Conservation Act (FEECA) and, therefore, the Florida Public Service Commission does not set numeric conservation goals for the City. However, the City expects to continue its commitment to the DSM programs that prove beneficial to the City's ratepayers.

2.1 System Demand and Energy Requirements

Historical and forecast energy consumption and customer information are presented in Tables 2.1, 2.2 and 2.3 (Schedules 2.1, 2.2, and 2.3). Figure B1 shows the historical total energy sales and forecast energy sales by customer class. Figure B2 shows the percentage of energy sales by customer class (excluding the impacts of DSM) for the base year of 2026 and the horizon year of 2035. Tables 2.4 through 2.12 (Schedules 3.1.1 - 3.3.3) contain historical and base, high, and low forecasts of seasonal peak demands and net energy for load. Table 2.13 (Schedule 4) compares actual and two-year forecast peak demand and energy values by month for the 2024-2026 period.

In 2022, the City implemented new customer management software, and the transition resulted in a lower running average of service points as some service points were consolidated or reclassified. This data anomaly most severely impacts the 2022-2023 average number of residential and commercial customers and the associated average consumption for these customer classes seen in Table 2.1. Data prior to 2022 was not reconciled to match the same counting and classification methodology as with half of 2022 and all of 2023, therefore the small reduction in customer count shown in 2023 does not indicate a demographic trend.

2.1.1 System Load and Energy Forecasts

The peak demand and energy forecasts contained in this plan are the results of the load and energy forecast. The forecast methodology consists of a combination of multi-variable regression models and other models that utilize subjective escalation assumptions and known incremental additions. All models are based on detailed examination of the system's historical growth, usage patterns and population statistics. Several key regression formulas utilize econometric variables.

Table 2.14 lists the econometric-based regression forecasting models that are used as predictors. Note that the City uses regression models with the capability of separately predicting commercial customers and consumption by rate sub-class: general service non-demand (GS), general service demand (GSD), and general service large demand (GSLD). These, along with the residential class, represent the major classes of the City's electric customers. In addition to these customer class models, the City's forecasting methodology also incorporates into the demand and energy projections estimated reductions from interruptible and curtailable customers. The key explanatory variables used in each of the models are indicated by an "X" on the table.

Table 2.15 documents the City's internal and external sources for historical and forecast economic, weather and demographic data. These tables summarize the details of the models used to generate the system customer, consumption and seasonal peak load forecasts. In addition to those explanatory variables listed, a component is also included in the models that reflect the transfers of certain City and Talquin Electric Cooperative (Talquin) customers over the study period consistent with the territorial agreement negotiated between the City and Talquin and approved by the FPSC.

The customer models are used to predict the number of customers by customer class, some of which in turn serve as input into their respective customer class consumption models. The customer class consumption models are aggregated to form a total base system sales forecast. The effects of DSM programs and system losses are incorporated in this base forecast to produce the system net energy for load (NEL) requirements.

Summer and winter peak demands were developed using a weather normalized average weather year and basing demand growth from the balance of population with efficiency improvements. The resulting long-term forecast shows negative load growth in the base case. Severe weather cases were also created to model the unusual extremes for both summer and winter.

Incremental load increases from expansion at Florida State University (FSU), Florida A&M University (FAMU), Tallahassee Memorial Hospital (TMH), the State Capitol Center, and other new large businesses account for the majority of commercial load growth in the planning period. These incremental additions are highly dependent upon annual economic and budget constraints, which cause fluctuations in demand projections. Therefore, each entity submits their proposed incremental additions/reductions to the City and these modifications are included in the base load and energy forecast. High and Low economic models are then created to forecast faster or slower expansion of key accounts.

The rate of growth in residential and commercial customers is driven by the projected growth in Leon County population. Leon County population is projected to grow at an average annual growth rate (AAGR) of 0.75%. This growth rate is below that for the state of Florida (>1%) but is slightly higher than that for the United States (~0.7%).

The City's energy efficiency and demand-side management (DSM) programs (discussed in Section 2.1.3) have decreased the average residential and commercial demand and energy requirements and are projected to offset the increased growth from population in residential and commercial customers. The net effect is the average consumption for residential and commercial customers may be approaching its minimum and leveling out over time (Schedule 2.1). The long-term forecast includes data on electric vehicles and solar generation owned by utility customers, as it has since the 2022 forecast.

2.1.2 Load Forecast Uncertainty & Sensitivities

Forecasts are derived from projections of the driving variables obtained from utility data and reputable sources. However, there is significant uncertainty in the future level of such variables. To the extent that economic, demographic, weather, or other conditions occur that are different from those assumed or provided, the actual load can be expected to vary from the forecast. For various purposes, it is important to understand the amount by which the forecast can be in error and the sources of error.

To capture this uncertainty, the City produces high and low range results that address potential variance in driving population and economic variables, and severe and mild weather sensitivity cases that address the potential variance in driving weather variables from the values assumed in the base case. The base case forecast relies on a set of assumptions about future population, economic activity, and weather in Leon County. However, such projections are unlikely to exactly match actual experience.

High and Low scenarios attempt to capture the variation in growth rate and are therefore setting the high and low load forecasts in year 10 of the planning period. Severe and Mild cases attempt to forecast the amplitude or year-to-year variation possible resulting from weather events that could occur one year from now or at any time in the planning window, but probably not more than twice in any ten-year period.

Tables 2.5, 2.6, 2.8, 2.9, 2.11 and 2.12 (Schedules 3.1.2, 3.1.3, 3.2.2, 3.2.3, 3.3.2 and 3.3.3) provide the summary of the High, Low, Severe, and Mild forecast cases.

Sensitivities on the peak demand forecasts are useful in planning for future power supply resource needs. The graph shown in Figure B3 compares summer peak demand (multiplied by 117% for reserve margin requirements) for the Base, Low, and High forecast cases with reductions from proposed DSM portfolio and the base forecast without proposed DSM reductions against the City's existing and planned power supply resources. This graph allows for the review of the effect of load growth and DSM performance variations on the timing of new resource additions. The highest probability weighting, of course, is placed on the base case assumptions, and the low and high cases are given a smaller likelihood of occurrence.

2.1.3 Energy Efficiency and Demand Side Management Programs

The City currently offers a variety of conservation and DSM measures to its residential and commercial customers, which are listed below:

Residential Measures	**Commercial Measures**
Energy Efficiency Loans	Energy Efficiency Loans
Information and Energy Audits	Demonstrations
Ceiling Insulation Grants	Information and Energy Audits
Low Income Ceiling Insulation Grants	Ceiling Insulation Grants
Low Income HVAC/Water Heater Repair Grants	Solar Water Heater Rebates
Low Income Duct Leak Repair Grants	Solar PV Net Metering
Energy Star Appliance Rebates	
High Efficiency HVAC Rebates	
Energy Star New Home Rebates	
Solar Water Heater Rebates	
Solar PV Net Metering	
Variable Speed Pool Pump Rebates	

The City has a goal to improve the efficiency of customers' end-use of energy resources when such improvements provide a measurable economic and/or environmental benefit to the customers and the City utilities.

The total demand savings potential for the resources identified in the 2024 DSM Assessment Study appear to compare well with that identified in the 2023 Integrated Resource Planning (IRP) Study providing some assurance that the City's ongoing and planned DSM and renewable efforts remain cost-effective. The latest projections in the TYSP reflect a positive outlook for DSM over the coming years guided by analysis from both studies.

Energy and demand reductions attributable to the DSM portfolio have been incorporated into the future load and energy forecasts. Tables 2.16 and 2.17 display, respectively, the cumulative potential impacts of the proposed DSM portfolio on system annual energy and seasonal peak demand requirements. Based on the anticipated limits on annual control events it is expected that DR/DLC will be predominantly utilized in the summer months. Therefore, Tables 2.7-2.9 and 2.17 reflect no expected utilization of DR/DLC capability to reduce winter peak demand.

2.2 Energy Sources and Fuel Requirements

Tables 2.18 (Schedule 5), 2.19 (Schedule 6.1), and 2.20 (Schedule 6.2) present the projections of fuel requirements, energy sources by resource/fuel type in gigawatt-hours, and energy sources by resource/fuel type in percent, respectively, for the period 2026-2035. Figure B4 displays the percentage of energy by fuel type in 2026 and 2035.

The City's generation portfolio includes combustion turbine/combined cycle (CC), combustion turbine/simple cycle (CT), and reciprocating internal combustion engine (RICE or IC) generators. The City's CC and CT units are capable of generating energy using natural gas or distillate fuel oil. The RICE units utilize natural gas only. This mix of generation types coupled with the contracted solar PPAs and opportunity purchases allows the City to satisfy total energy requirements while balancing the cost of power with the environmental quality of our community.

The forecast of fuel requirements and energy sources are derived from a historical analysis of fuel consumption, the results of simulation modeling, and the resource plan described in Chapter III.

City Of Tallahassee

Schedule 2.1
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Base Load Forecast

(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)		(9)
	Rural & Residential						Commercial			
Year	Population [1]	Members Per Household	(GWh) [2]	Average No. of Customers		Average kWh Consumption Per Customer	(GWh) [2]	Average No. of Customers		Average kWh Consumption Per Customer
2016	288,972	-	1,080	100,003		10,800	1,560	19,002		82,097
2017	290,466	-	1,059	100,921		10,493	1,558	19,130		81,443
2018	292,700	-	1,123	102,395		10,967	1,552	19,282		80,490
2019	294,200	-	1,152	104,104		11,066	1,565	19,434		80,529
2020	293,800	-	1,149	105,829		10,857	1,432	19,648		72,883
2021	296,400	-	1,139	106,321		10,713	1,426	19,580		72,829
2022	297,130	-	1,149	107,358	[3]	10,703	1,474	19,830	[3]	74,332
2023	297,862	-	1,140	101,318	[3]	11,252	1,488	18,421	[3]	80,777
2024	302,197	-	1,189	105,267		11,295	1,575	18,974		83,008
2025	305,866	-	1,188	105,945		11,213	1,608	19,201		83,746
2026	307,553	-	1,196	107,282		11,148	1,634	19,116		85,478
2027	309,240	-	1,206	108,113		11,155	1,632	19,232		84,859
2028	310,926	-	1,216	108,952		11,161	1,631	19,346		84,307
2029	312,613	-	1,226	109,779		11,169	1,629	19,464		83,693
2030	314,300	-	1,237	110,610		11,185	1,629	19,585		83,176
2031	315,860	-	1,246	111,401		11,186	1,629	19,704		82,674
2032	317,420	-	1,256	112,159		11,200	1,629	19,821		82,186
2033	318,980	-	1,264	112,918		11,196	1,629	19,937		81,707
2034	320,540	-	1,273	113,657		11,202	1,630	20,053		81,285
2035	322,100	-	1,282	114,380		11,210	1,633	20,138		81,090

[1] Population data represents Leon County population.
[2] Values include DSM impacts.
[3] Methodology change in Customer Count occurred in February of 2022, also impacting 2023 customer counts.

City Of Tallahassee

Schedule 2.2
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Base Load Forecast

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Industrial				Street & Highway Lighting (GWh) [2]	Other Sales to Public Authorities (GWh) [3]	Total Sales to Ultimate Consumers (GWh) [4]
Year	(GWh)	Average No. of Customers [1]	Average kWh Consumption Per Customer	Railroads and Railways (GWh)			
2016	-	-	-		0	4	2,644
2017	-	-	-		0	17	2,634
2018	-	-	-		0	23	2,698
2019	-	-	-		0	22	2,739
2020	-	-	-		0	26	2,607
2021	-	-	-		0	25	2,590
2022	-	-	-		0	24	2,647
2023	-	-	-		0	24	2,652
2024	-	-	-		0	24	2,788
2025	-	-	-		0	24	2,820
2026	-	-	-		0	24	2,854
2027	-	-	-		0	24	2,862
2028	-	-	-		0	24	2,871
2029	-	-	-		0	24	2,879
2030	-	-	-		0	24	2,890
2031	-	-	-		0	24	2,899
2032	-	-	-		0	24	2,909
2033	-	-	-		0	24	2,917
2034	-	-	-		0	24	2,927
2035	-	-	-		0	24	2,939

[1] Average end-of-month customers for the calendar year.
[2] As of 2007 Security Lights and Street & Highway Lighting use is included with Commercial on Schedule 2.1.
[3] Reflects net of Talquin sales (for Talquin customers served by the City) and Talquin purchases (for City customers served by Talquin).
[4] Values include DSM impacts.

City Of Tallahassee

Schedule 2.3
History and Forecast of Energy Consumption and Number of Customers by Customer Class

Base Load Forecast

(1)	(2)	(3)	(4)	(5)	(6)
Year	Sales for Resale (GWh)	Utility Use & Losses (GWh)	Net Energy for Load (GWh) [1]	Other Customers (Average No.)	Total No. of Customers [2]
2016	0	139	2,783	0	119,005
2017	0	124	2,758	0	120,051
2018	0	122	2,820	0	121,677
2019	0	112	2,851	0	123,538
2020	0	121	2,728	0	125,477
2021	0	115	2,705	0	125,901
2022	0	119	2,766	0	127,188
2023	0	59	2,711	0	119,739
2024	0	61	2,849	0	124,241
2025	0	57	2,877	0	125,146
2026	0	57	2,911	0	126,398
2027	0	57	2,919	0	127,345
2028	0	57	2,928	0	128,298
2029	0	58	2,937	0	129,243
2030	0	58	2,948	0	130,195
2031	0	58	2,957	0	131,105
2032	0	59	2,968	0	131,980
2033	0	59	2,976	0	132,855
2034	0	59	2,986	0	133,710
2035	0	59	2,998	0	134,518

[1] Reflects NEL served by City electric system. Values include DSM Impacts.
[2] Average number of customers for the calendar year.

Figure B1: Energy Consumption by Customer Class Stacked Bar

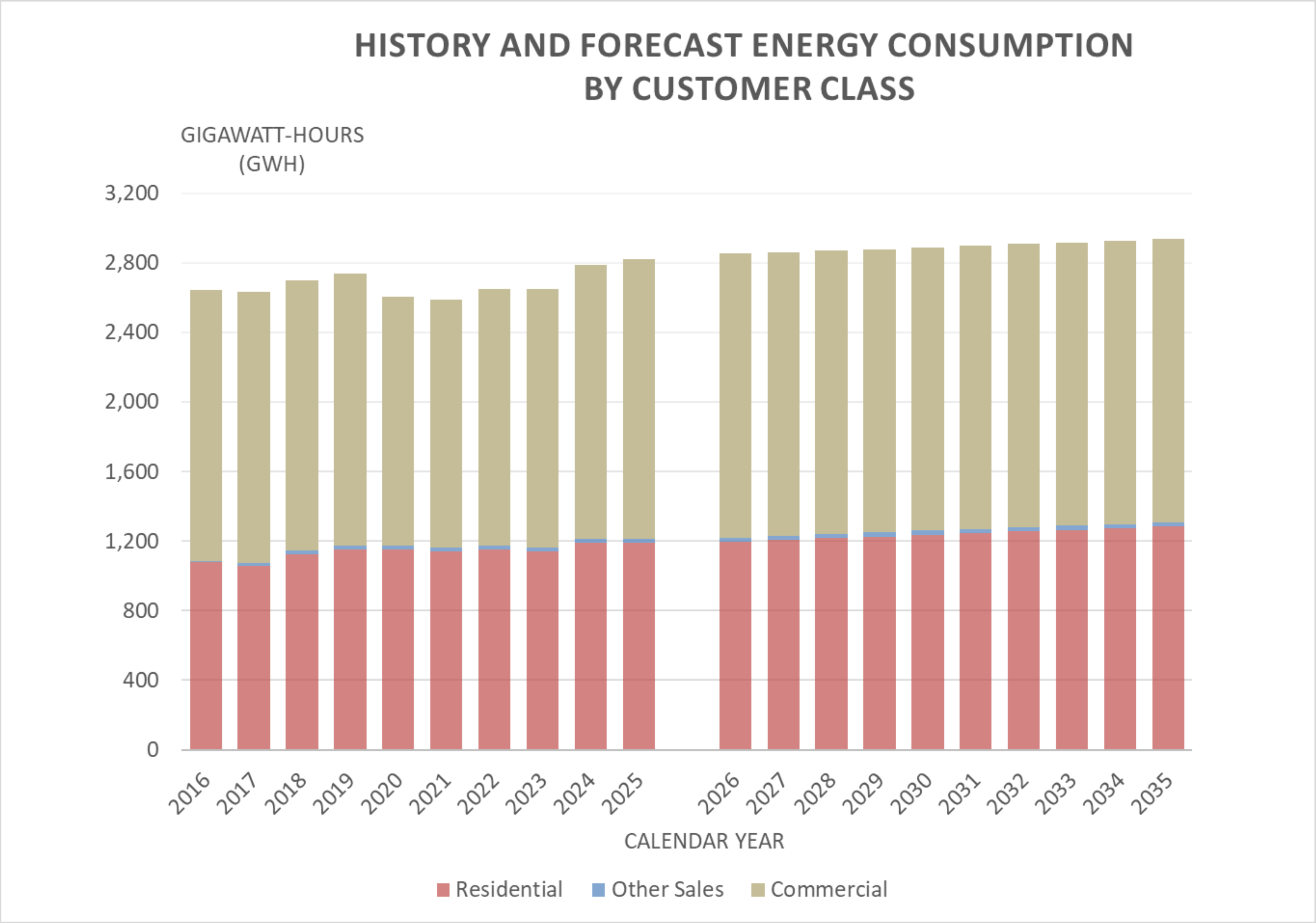
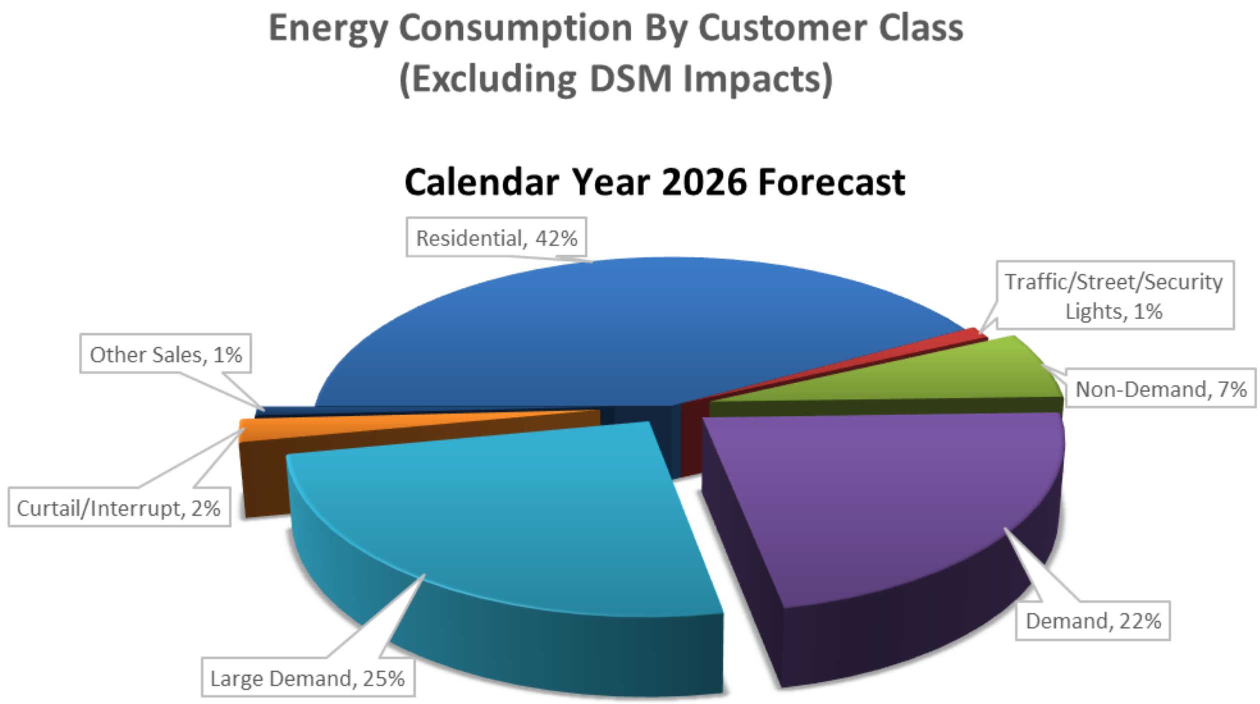
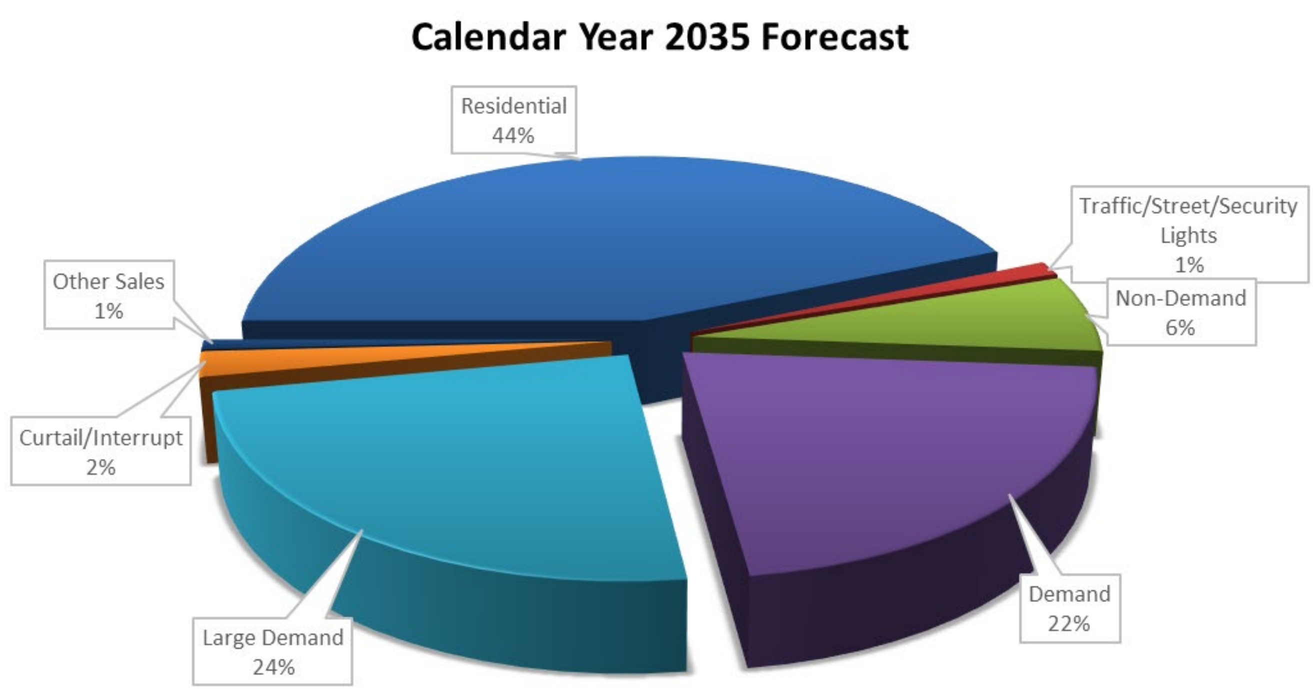


Figure B2: Energy Consumption by Customer Class



2026 Forecast Sales = 2,854 GWh



2035 Forecast Sales = 2,939 GWh

City Of Tallahassee

Schedule 3.1.1
History and Forecast of Summer Peak Demand
Base Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2]	(7) Residential Conservation [2], [3]	(8) Comm./Ind Load Management [2]	(9) Comm./Ind Conservation [2], [3]	(10) Net Firm Demand [1]
2016	597		597						597
2017	598		598						598
2018	596		596						596
2019	616		616						616
2020	576		576						576
2021	573		573						573
2022	590		590						590
2023	615		615						615
2024	594		594						594
2025	599		599		0	1	0	0	598
2026	611		611		0	2	0	0	609
2027	611		611		0	4	0	1	606
2028	612		612		0	6	0	2	604
2029	613		613		0	8	0	3	602
2030	613		613		0	10	0	4	599
2031	615		615		1	12	1	5	596
2032	617		617		3	13	1	6	594
2033	619		619		4	14	3	7	591
2034	623		623		5	15	4	8	591
2035	627		627		6	16	5	9	591

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2024 DSM is actual at peak.
[3] 2024 values reflect incremental increase from 2023.

City Of Tallahassee

Schedule 3.1.2
History and Forecast of Summer Peak Demand
High Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2]	(7) Residential Conservation [2], [3]	(8) Comm./Ind Load Management [2]	(9) Comm./Ind Conservation [2], [3]	(10) Net Firm Demand [1]
2016	597		597						597
2017	598		598						598
2018	596		596						596
2019	616		616						616
2020	576		576						576
2021	573		573						573
2022	590		590						590
2023	615		615						615
2024	594		594						594
2025	599		599		0	1	0	0	598
2026	641		641		0	2	0	0	639
2027	641		641		0	4	0	1	636
2028	642		642		0	6	0	2	634
2029	643		643		0	8	0	3	632
2030	643		643		0	10	0	4	629
2031	645		645		1	12	1	5	626
2032	647		647		3	13	1	6	624
2033	649		649		4	14	3	7	621
2034	653		653		5	15	4	8	621
2035	657		657		6	16	5	9	621

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2024 DSM is actual at peak.
[3] 2024 values reflect incremental increase from 2023.

City Of Tallahassee

Schedule 3.1.3
History and Forecast of Summer Peak Demand
Low Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2]	(7) Residential Conservation [2], [3]	(8) Comm./Ind Load Management [2]	(9) Comm./Ind Conservation [2], [3]	(10) Net Firm Demand [1]
2016	597		597						597
2017	598		598						598
2018	596		596						596
2019	616		616						616
2020	576		576						576
2021	573		573						573
2022	590		590						590
2023	615		615						615
2024	594		594						594
2025	599		599		0	1	0	0	598
2026	593		593		0	2	0	0	591
2027	593		593		0	4	0	1	588
2028	594		594		0	6	0	2	586
2029	595		595		0	8	0	3	584
2030	595		595		0	10	0	4	581
2031	597		597		1	12	1	5	578
2032	599		599		3	13	1	6	576
2033	601		601		4	14	3	7	573
2034	605		605		5	15	4	8	573
2035	609		609		6	16	5	9	573

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2023 DSM is actual at peak.
[3] 2023 values reflect incremental increase from 2022.

City Of Tallahassee

Schedule 3.2.1
History and Forecast of Winter Peak Demand
Base Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2], [3]	(7) Residential Conservation [2], [4]	(8) Comm./Ind Load Management [2], [3]	(9) Comm./Ind Conservation [2], [4]	(10) Net Firm Demand [1]
2016 -2017	533		533						533
2017 -2018	621		621						621
2018 -2019	508		508						508
2019 -2020	528		528						528
2020 -2021	504		504						504
2021 -2022	538		538						538
2022 -2023	561		561						561
2023 -2024	591		591						591
2024 -2025	623		623						623
2025 -2026	621		621		0	1	0	0	620
2026 -2027	535		535		0	2	0	0	533
2027 -2028	537		537		0	4	0	1	532
2028 -2029	539		539		0	6	0	2	531
2029 -2030	541		541		0	8	0	3	530
2030 -2031	542		542		0	10	0	4	528
2031 -2032	544		544		0	12	0	5	527
2032 -2033	545		545		0	13	0	6	526
2033 -2034	547		547		0	14	0	7	526
2034 -2035	549		549		0	15	0	8	526
2035 -2036	551		551		0	16	0	9	526

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2024-2025 DSM is actual at peak.
[3] Reflects no expected utilization of demand response (DR) resources in winter.
[4] 2025-2026 values reflect incremental increase from 2024-2025.

City Of Tallahassee

Schedule 3.2.2
History and Forecast of Winter Peak Demand
High Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2], [3]	(7) Residential Conservation [2], [4]	(8) Comm./Ind Load Management [2], [3]	(9) Comm./Ind Conservation [2], [4]	(10) Net Firm Demand [1]
2016 -2017	533		533						533
2017 -2018	621		621						621
2018 -2019	508		508						508
2019 -2020	528		528						528
2020 -2021	504		504						504
2021 -2022	538		538						538
2022 -2023	561		561						561
2023 -2024	591		591						591
2024 -2025	623		623						623
2025 -2026	621		621		0	1	0	0	620
2026 -2027	626		626		0	2	0	0	624
2027 -2028	627		627		0	4	0	1	622
2028 -2029	629		629		0	6	0	2	621
2029 -2030	631		631		0	8	0	3	620
2030 -2031	632		632		0	10	0	4	618
2031 -2032	634		634		0	12	0	5	617
2032 -2033	634		634		0	13	0	6	615
2033 -2034	636		636		0	14	0	7	615
2034 -2035	638		638		0	15	0	8	615
2035 -2036	640		640		0	16	0	9	615

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2024-2025 DSM is actual at peak.
[3] Reflects no expected utilization of demand response (DR) resources in winter.
[4] 2025-2026 values reflect incremental increase from 2024-2025.

City Of Tallahassee

Schedule 3.2.3
History and Forecast of Winter Peak Demand
Low Forecast
(MW)

(1) Year	(2) Total	(3) Wholesale	(4) Retail	(5) Interruptible	(6) Residential Load Management [2], [3]	(7) Residential Conservation [2], [4]	(8) Comm./Ind Load Management [2], [3]	(9) Comm./Ind Conservation [2], [4]	(10) Net Firm Demand [1]
2016 -2017	533		533						533
2017 -2018	621		621						621
2018 -2019	508		508						508
2019 -2020	528		528						528
2020 -2021	504		504						504
2021 -2022	538		538						538
2022 -2023	561		561						561
2023 -2024	591		591						591
2024 -2025	623		623						623
2025 -2026	621		621		0	1	0	0	620
2026 -2027	514		514		0	2	0	0	512
2027 -2028	516		516		0	4	0	1	511
2028 -2029	518		518		0	6	0	2	510
2029 -2030	520		520		0	8	0	3	509
2030 -2031	521		521		0	10	0	4	507
2031 -2032	523		523		0	12	0	5	506
2032 -2033	524		524		0	13	0	6	505
2033 -2034	526		526		0	14	0	7	505
2034 -2035	528		528		0	15	0	8	505
2035 -2036	530		530		0	16	0	9	505

[1] Values include DSM Impacts.
[2] Reduction estimated at busbar. 2024-2025 DSM is actual at peak.
[3] Reflects no expected utilization of demand response (DR) resources in winter.
[4] 2025-2026 values reflect incremental increase from 2024-2025.

City Of Tallahassee

Schedule 3.3.1
History and Forecast of Annual Net Energy for Load
Base Forecast
(GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total Sales	Residential Conservation [1]	Comm./Ind Conservation [1]	Retail Sales [2], [3]	Other Retail [4]	Utility Use & Losses	Net Energy for Load [3], [5]	Load Factor % [3]
2016	2,640			2,640	4	139	2,783	42
2017	2,617			2,617	17	124	2,758	42
2018	2,675			2,675	23	122	2,820	43
2019	2,717			2,717	22	112	2,851	43
2020	2,581			2,581	26	121	2,728	41
2021	2,565			2,565	25	115	2,705	41
2022	2,623			2,623	24	119	2,766	42
2023	2,628			2,628	24	59	2,711	41
2024	2,764			2,764	24	61	2,849	43
2025	2,800	4	0	2,796	24	57	2,877	43
2026	2,840	8	2	2,830	24	57	2,911	44
2027	2,857	14	5	2,838	24	57	2,919	44
2028	2,877	22	8	2,847	24	57	2,928	44
2029	2,896	30	11	2,855	24	58	2,937	44
2030	2,917	37	14	2,866	24	58	2,948	45
2031	2,936	44	17	2,875	24	58	2,957	45
2032	2,955	50	20	2,885	24	59	2,968	45
2033	2,972	56	23	2,893	24	59	2,976	45
2034	2,989	61	25	2,903	24	59	2,986	45
2035	3,006	64	27	2,915	24	59	2,998	45

[1] Reduction estimated at customer meter. 2024 DSM is actual incremental increase from 2023.
[2] History is total sales to City customers. Forecast is sales served by City electric system.
[3] Values include DSM Impacts.
[4] Reflects net of Talquin sales (for Talquin customers served by the City) and Talquin purchases (for City customers served by Talquin).

City Of Tallahassee

Schedule 3.3.2
History and Forecast of Annual Net Energy for Load
High Forecast
(GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total Sales	Residential Conservation [1]	Comm./Ind Conservation [1]	Retail Sales [2], [3]	Wholesale [4]	Utility Use & Losses	Net Energy for Load [3], [5]	Load Factor % [3]
2016	2,640			2640	4	139	2,783	42
2017	2,617			2617	17	124	2,758	42
2018	2,675			2675	23	122	2,820	43
2019	2,717			2717	22	112	2,851	43
2020	2,581			2581	26	121	2,728	41
2021	2,565			2565	25	115	2,705	41
2022	2,623			2623	24	119	2,766	42
2023	2,628			2628	24	59	2,711	41
2024	2,764			2764	24	61	2,849	43
2025	2,800	4	0	2796	24	57	2,877	43
2026	2,889	8	2	2,879	25	57	2,961	45
2027	2,943	14	5	2,924	25	57	3,006	45
2028	2,962	22	8	2,932	25	57	3,014	46
2029	2,983	30	11	2,942	25	58	3,025	46
2030	3,002	37	14	2,951	25	58	3,034	46
2031	3,024	44	17	2,963	25	58	3,046	46
2032	3,043	50	20	2,973	25	59	3,057	46
2033	3,062	56	23	2,983	25	59	3,067	46
2034	3,079	61	25	2,993	25	59	3,077	46
2035	3,095	64	27	3,004	25	59	3,088	47

[1] Reduction estimated at customer meter. 2024 DSM is actual incremental increase from 2023.
[2] History is total sales to City customers. Forecast is sales served by City electric system.
[3] Values include DSM Impacts.
[4] Reflects net of Talquin sales (for Talquin customers served by the City) and Talquin purchases (for City customers served by Talquin).

City Of Tallahassee

Schedule 3.3.3
History and Forecast of Annual Net Energy for Load
Low Forecast
(GWh)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Year	Total Sales	Residential Conservation [1]	Comm./Ind Conservation [1]	Retail Sales [2], [3]	Wholesale [4]	Utility Use & Losses	Net Energy for Load [3], [5]	Load Factor % [3]
2016	2,640			2640	4	139	2,783	42
2017	2,617			2617	17	124	2,758	42
2018	2,675			2675	23	122	2,820	43
2019	2,717			2717	22	112	2,851	43
2020	2,581			2581	26	121	2,728	41
2021	2,565			2565	25	115	2,705	41
2022	2,623			2623	24	119	2,766	42
2023	2,628			2628	24	59	2,711	41
2024	2,764			2764	24	61	2,849	43
2025	2,800	4	0	2796	24	57	2,877	43
2026	2,643	8	2	2,633	24	57	2,714	41
2027	2,693	14	5	2,674	24	57	2,755	42
2028	2,711	22	8	2,681	24	57	2,762	42
2029	2,730	30	11	2,689	24	58	2,771	42
2030	2,749	37	14	2,698	24	58	2,780	42
2031	2,769	44	17	2,708	24	58	2,790	42
2032	2,787	50	20	2,717	24	59	2,800	42
2033	2,804	56	23	2,725	24	59	2,808	42
2034	2,820	61	25	2,734	24	59	2,817	43
2035	2,835	64	27	2,744	24	59	2,827	43

[1] Reduction estimated at customer meter. 2024 DSM is actual incremental increase from 2023.
[2] History is total sales to City customers. Forecast is sales served by City electric system.
[3] Values include DSM Impacts.
[4] Reflects net of Talquin sales (for Talquin customers served by the City) and Talquin purchases (for City customers served by Talquin).

City Of Tallahassee

Schedule 4
Previous Year and 2-Year Forecast of Retail Peak Demand and Net Energy for Load by Month

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	2025 Actual		2026 Forecast [1][2][3]		2027 Forecast [1]	
Month	Peak Demand (MW)	NEL (GWh)	Peak Demand (MW)	NEL (GWh)	Peak Demand (MW)	NEL (GWh)
January	623	268	571	241	535	240
February	507	189	620	230	534	212
March	363	197	467	207	467	210
April	483	218	454	207	454	214
May	523	251	482	246	482	250
June	569	269	558	276	558	281
July	598	304	601	293	601	294
August	577	287	609	297	609	283
September	547	263	591	266	591	265
October	499	224	548	233	548	234
November	450	199	478	201	478	201
December	478	209	443	214	443	235
TOTAL		2,878		2,911		2,919

[1] Peak Demand and NEL include DSM Impacts.
[2] Represents forecast values for 2026.
[3] Rounding may show +/- 1 GWh Total

City of Tallahassee, Florida

2026 Electric System Load Forecast
Key Explanatory Variables

	Forecast Model								
Explanatory Variable	RS Customers	RS Consumption	GSND Customers	GSND Consumption	GSD Customers	GSD Consumption	GSLD Consumption	System Losses	Monthly Load Factor [2]
Leon County Population	X			X	X	X			
Leon County Personal Income			X				X		
Leon County Gross Product									
Leon County Non-Store Sales				X			X		
Tallahassee MSA Taxable Sales				X					
Tallahassee MSA Per Capita Taxable Sales		X							
Residential Customers		X							
Florida Mortgage Originations	X								
Florida Home Vacancies	X								
US Personal Spending			X				X		
Energy Efficiency Standards		X							
Price of Electricity		X							
Leon County Residential Location Prevalence		X							
Leon County Commercial Location Prevalence				X		X	X		X
Cooling Degree Days [1]		X		X		X	X	X	X
Heating Degree Days [1]		X		X				X	X
Prior Month Cooling Degree Days [1]								X	
Prior Month Heating Degree Days [1]								X	
Winter Peak and Prior Day HDD [1]									X
Summer Peak and Prior Day HDD [1]									X

[1] The base from which monthly heating and cooling degree days (HDD/CDD, respectively) are computed is 65 degrees Fahrenheit (dF). Peak day HDD and CDD reflect differing bases. For winter peak HDD the base is 55 degrees Fahrenheit (^{o}F); for summer peak CDD the base is 70^{o}F.

[3] As monthly load factor is essentially a stationary series, indicators of goodness of fit should be viewed differently. In combination with estimates of NEL, forecasted peak demands from this equation will have far better fit than the adjusted R-Squared here indicates. The equation also includes daytype variables.

Table 2.15: Data Sources

City of Tallahassee

2026 Electric System Load Forecast

Sources of Forecast Model Input Information

Energy Model Input Data	Source
Leon County Population	Bureau of Economic and Business Research Woods and Poole Economics
Leon County Personal Income	Woods and Poole Economics
Leon County Gross Product	Woods and Poole Economics
Leon County Non-Store Sales	Woods and Poole Economics
Cooling Degree Days	NOAA
Heating Degree Days	NOAA
AC Saturation Rate	Appliance Saturation Study; EIA
Heating Saturation Rate	Appliance Saturation Study; EIA
Real Tallahassee Taxable Sales	Florida Department of Revenue, CPI Woods and Poole Economics
Real Tallahassee Taxable Sales Per Capita	Florida Department of Revenue, CPI Woods and Poole Economics
Florida Population	Bureau of Economic and Business Research Woods and Poole Economics
Florida Home Vacancy Rate	U.S. Bureau of the Census
Florida Mortgage Originations	IHS Global Insight (now IHS Markit)
U.S. Personal Spending Rate	U.S. Bureau of Economic Analysis
State Capitol Incremental	Department of Management Services
FSU Incremental Additions	FSU Planning Department
FAMU Incremental Additions	FAMU Planning Department
GSLD Incremental Additions	City Utility Services
Other Commercial Customers	City Utility Services
Tall. Memorial Curtailable	City Utility Services
System Peak Historical Data	City System Planning
Historical Customer Projections by Class	City Utility Services
Historical Customer Class Energy	City Utility Services
Interruptible, Traffic Light Sales, & Security Light Additions	City Utility Services
Residential/Commercial Real Price of Electricity	Calculated from Revenues, kWh sold, CPI

Figure B3: Summer Peak Load compared to Capacity Supply

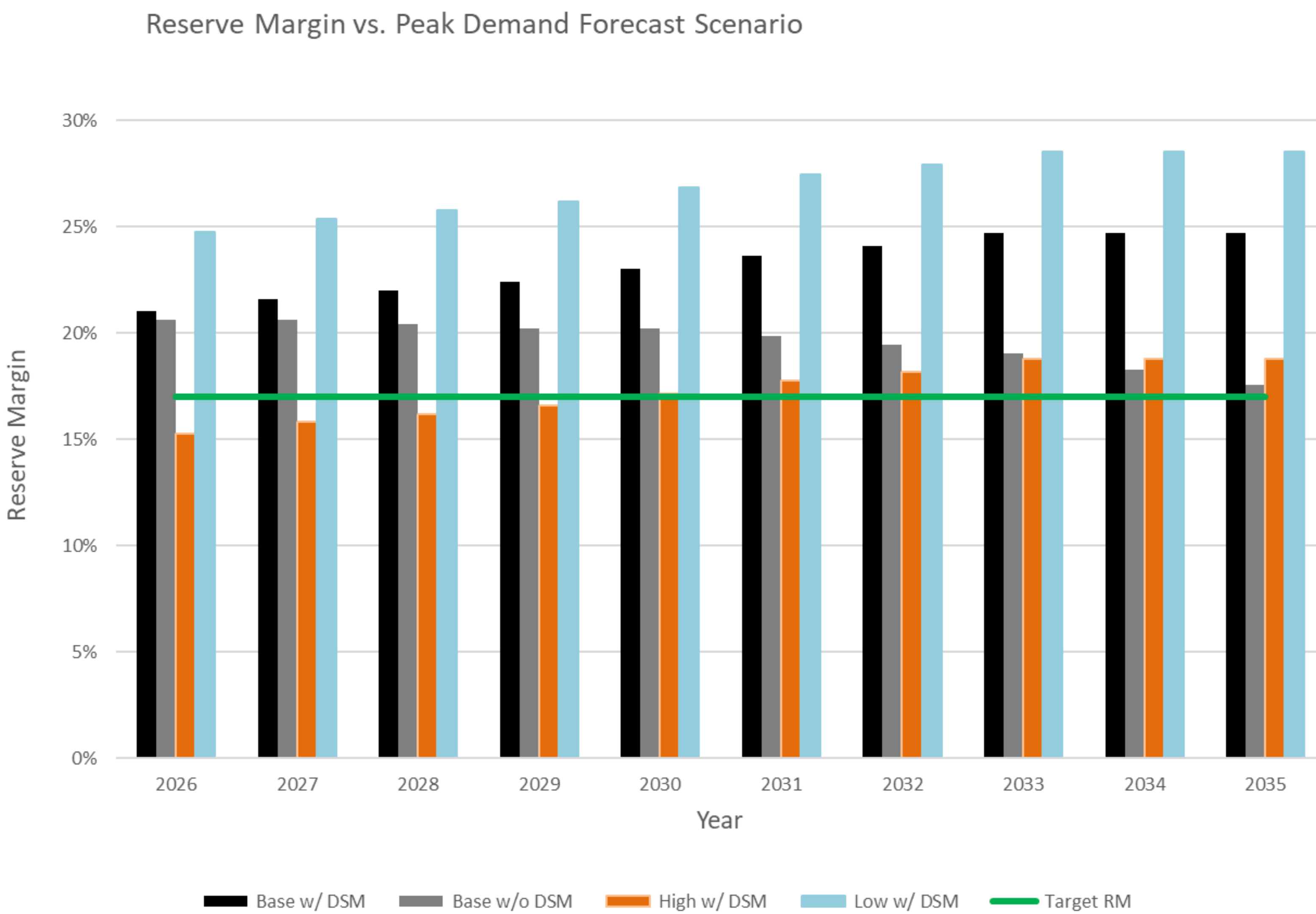


Table 2.16: Demand Side Management Impacts

City Of Tallahassee

2026 Electric System Load Forecast

Projected Demand Side Management Energy Reductions [1]

Calendar Year	Residential Impact (GWh)	Commercial Impact (GWh)	Total Cumulative Impact (GWh)
2026	8	2	14
2027	14	5	23
2028	22	8	34
2029	30	11	45
2030	37	14	55
2031	44	17	65
2032	50	20	74
2033	56	23	83
2034	61	25	90
2035	64	27	95

[1] Reductions estimated at generator busbar.

City Of Tallahassee

2026 Electric System Load Forecast

Projected Demand Side Management
Seasonal Peak Demand Reductions [1]

		Residential Energy Efficiency Impact		Commercial Energy Efficiency Impact		Residential Demand Response Impact		Commercial Demand Response Impact		Demand Side Management Total	
Year Summer	Winter	Summer (MW)	Winter (MW)	Summer (MW)	Winter (MW)	Summer (MW)	Winter [2] (MW)	Summer (MW)	Winter [2] (MW)	Summer (MW)	Winter (MW)
2026	2026-2027	2	2	0	0	0	0	0	0	2	2
2027	2027-2028	4	4	0	1	0	0	0	0	4	5
2028	2028-2029	6	6	0	2	0	0	0	0	6	8
2029	2029-2030	8	8	0	3	0	0	0	0	8	11
2030	2030-2031	10	10	0	4	0	0	0	0	10	14
2031	2031-2032	12	12	1	5	1	0	1	0	15	17
2032	2032-2033	13	13	1	6	3	0	1	0	18	19
2033	2033-2034	14	14	3	7	4	0	3	0	24	21
2034	2034-2035	15	15	4	8	5	0	4	0	28	23
2035	2035-2036	16	16	5	9	6	0	5	0	32	25

[1] Reductions estimated at busbar.
[2] Reflects no expected utilization of demand response (DR) resources in winter.

Schedule 5: Fuel Requirements

City Of Tallahassee

Schedule 5
Fuel Requirements

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Fuel Requirements		Units	Actual 2024	Actual 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
(1)	Nuclear		Billion Btu	0	0	0	0	0	0	0	0	0	0	0	0
(2)	Coal		1000 Ton	0	0	0	0	0	0	0	0	0	0	0	0
(3)	Residual	Total	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(4)		Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(5)		CC	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(6)		CT	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(7)		Diesel	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(8)	Distillate	Total	1000 BBL	1	7	8	0	0	0	0	0	0	0	0	0
(9)		Steam	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(10)		CC	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CT	1000 BBL	1	7	8	0	0	0	0	0	0	0	0	0
(12)		Diesel	1000 BBL	0	0	0	0	0	0	0	0	0	0	0	0
(13)	Natural Gas	Total	1000 MCF	23,043	23,424	22,422	22,495	22,565	22,790	23,018	23,248	23,481	23,716	23,953	24,192
(14)		Steam	1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
(15)		CC	1000 MCF	19,580	20,938	19,283	19,346	19,406	19,599	19,795	19,993	20,194	20,396	20,600	20,805
(16)		CT	1000 MCF	3,463	2,486	3,139	3,149	3,159	3,191	3,223	3,255	3,287	3,320	3,353	3,387
(17)		Diesel	1000 MCF	0	0	0	0	0	0	0	0	0	0	0	0
(18)	Other (Specify)		Trillion Btu	0	0	0	0	0	0	0	0	0	0	0	0

Schedule 6.1: Energy Sources by GWh

City Of Tallahassee

Schedule 6.1
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources		Units	Actual 2024	Actual 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
(1)	Annual Firm Interchange		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(2)	Coal		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(3)	Nuclear		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(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	0	4	0	0	0	0	0	0	0	0	0	0
(10)		Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(11)		CC	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(12)		CT	GWh	0	4	0	0	0	0	0	0	0	0	0	0
(13)		Diesel	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(14)	Natural Gas	Total	GWh	2,985	3,045	2,940	2,950	2,959	2,969	2,981	2,992	3,003	3,012	3,023	3,036
(15)		Steam	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(16)		CC	GWh	2,586	2,832	2,734	2,744	2,753	2,762	2,773	2,783	2,794	2,802	2,812	2,824
(17)		CT	GWh	399	213	206	206	206	207	208	209	209	210	211	212
(18)		Diesel	GWh	0	0	0	0	0	0	0	0	0	0	0	0
(19)	Hydro		GWh	0	0	0	0	0	0	0	0	0	0	0	0
(20)	Economy Interchange[1]		GWh	(232)	(280)	(137)	(137)	(138)	(138)	(139)	(139)	(140)	(140)	(141)	(141)
(21)	Renewables		GWh	96	108	107	107	106	106	105	105	104	104	103	103
(22)	Net Energy for Load		GWh	2,849	2,877	2,911	2,919	2,928	2,937	2,948	2,957	2,968	2,976	2,986	2,998

[1] Negative values reflect power sales to address generator minimum load thresholds.

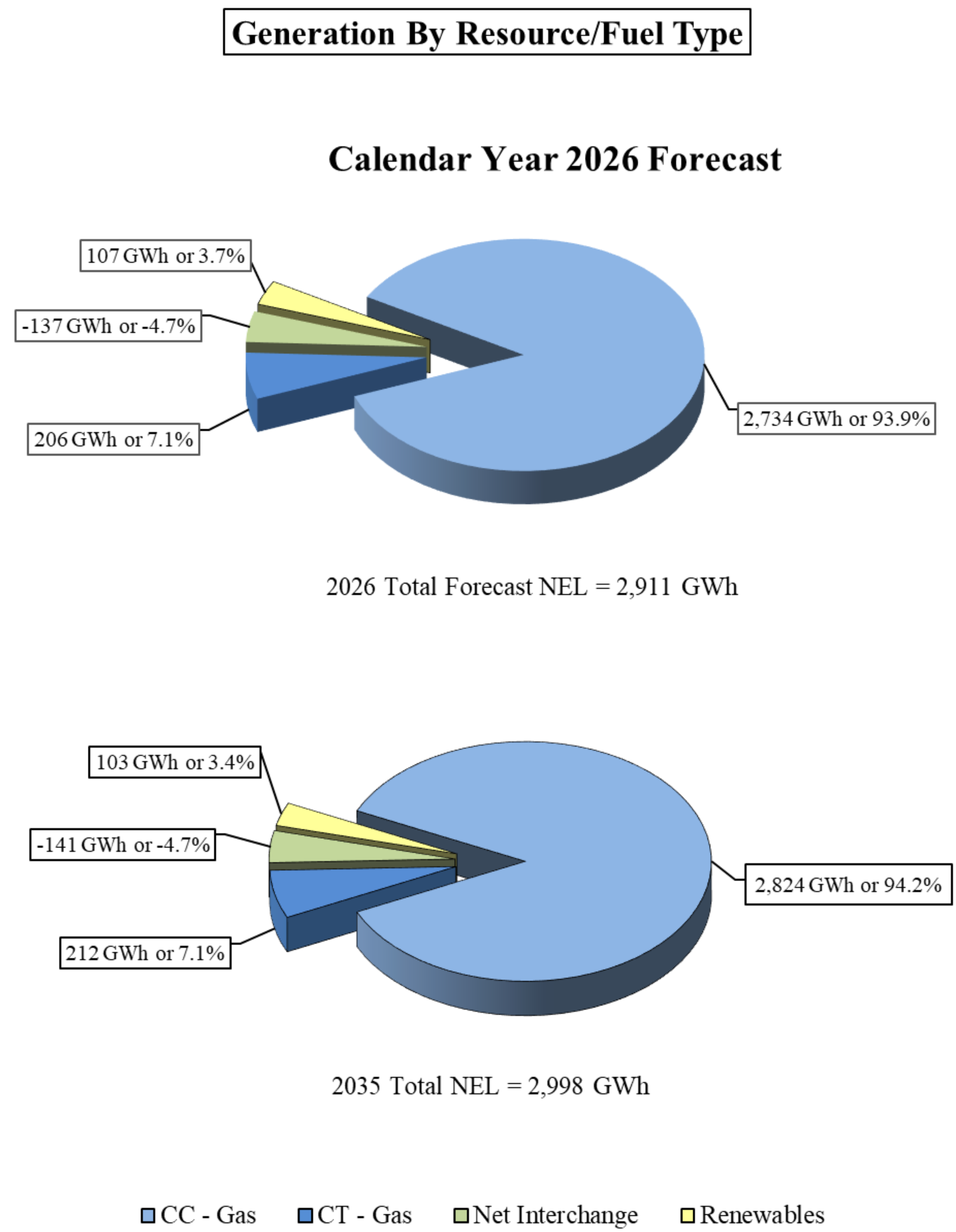
Schedule 6.2 Energy Sources by Percentage

City Of Tallahassee

Schedule 6.2
Energy Sources

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	Energy Sources		Units	Actual 2024	Actual 2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
(1)	Annual Firm Interchange		%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(2)	Coal		%	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)	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
(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	%	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(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	%	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(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	%	104.8	105.8	101.0	101.0	101.1	101.1	101.1	101.2	101.2	101.2	101.3	101.3
(15)		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
(16)		CC	%	90.8	98.4	93.9	94.0	94.0	94.0	94.1	94.1	94.1	94.2	94.2	94.2
(17)		CT	%	14.0	7.4	7.1	7.0	7.0	7.1	7.1	7.1	7.1	7.1	7.1	7.1
(18)		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
(19)	Hydro		%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(20)	Economy Interchange		%	(8.1)	(9.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
(21)	Renewables		%	3.4	3.8	3.7	3.7	3.6	3.6	3.6	3.5	3.5	3.5	3.5	3.4
(22)	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

Figure B4: Generation by Resource/Fuel Type



Chapter III: Projected Facility Requirements

3.1 Planning Process

The City periodically reviews DSM and power supply options that are consistent with the City's policy objectives as published in the City's Strategic Plan.

3.2 Projected Resource Requirements

3.2.1 Transmission Limitations

The City's projected transmission import and export capability continues to be a major determinant of the type and timing of future power supply resource additions. The City's internal transmission studies have reflected a gradual deterioration of the system's transmission import and export capability into the future, due to the expected configuration and use, both scheduled and unscheduled, of the City's transmission system and the surrounding regional transmission system. The City has worked with its neighboring utilities, Duke and Southern, to plan and maintain, at minimum, sufficient transmission import capability to allow the City to make emergency power purchases in the event of the most severe single contingency, the loss of the system's largest generating unit, and sufficient export capability to allow for the sale of incidental and/or economic excess local generation.

The prospects for significant expansion of the regional transmission system around Tallahassee hinge on the City's ongoing discussions with Duke and Southern, the Florida Reliability Coordinating Council's (FRCC) regional transmission planning process, and the evolving set of mandatory reliability standards issued by the North American Electric Reliability Corporation (NERC). However, no substantive improvements to the City's transmission import/export capability are expected absent the City's prospective purchase of firm transmission service. In consideration of the City's limited transmission import capability internal analysis of options tend to favor local power supply alternatives as the means to satisfy future power supply requirements.

3.2.2 Reserve Requirements

For the purposes of this year's TYSP report the City uses a load reserve margin of 17% as its resource adequacy criterion. This margin was established in the 1990s then re-evaluated via a loss of load probability (LOLP) analysis of the City's system performed in 2002. The City periodically conducts probabilistic resource adequacy assessments to determine if conditions warrant a change to its resource adequacy criteria. The results of more recent analyses suggest that reserve margin may no longer be suitable as the City's sole resource adequacy criterion. This issue is discussed further in Section 3.2.4.

3.2.3 Recent and Expected Resource Changes

City of Tallahassee has not added resources in the last 5 years.

3.2.4 Power Supply Diversity

Resource diversity, and particularly fuel diversity, has long been a priority concern for the City because of the system's heavy reliance on natural gas as its primary fuel source. This issue has received even greater emphasis due to historical and current volatility in natural gas prices. The City has addressed this concern in part by implementing an Energy Risk Management (ERM) program to limit the City's exposure to energy price fluctuations. The ERM program established an organizational structure of interdepartmental committees and working groups and included the adoption of an Energy Risk Management Policy. This policy identifies acceptable risk mitigation products to prevent asset value losses, ensure price stability and provide protection against market volatility for fuels and energy to the City's electric and gas utilities and their customers.

Other important considerations in the City's planning process are the diversity of power supply resources in terms of their number, sizes and expected duty cycles as well as expected transmission import capabilities. To satisfy expected electric system requirements, the City currently assesses the adequacy of its power supply resources versus the 17% load reserve margin criterion. But the evaluation of reserve margin is made only for the annual electric system peak demand and assuming all power supply resources are available. Resource adequacy is also evaluated during other times of the year to determine if the City is maintaining the appropriate amount and mix of power supply resources. Further, consideration is given to the adequacy of resources' ability to provide ancillary services (voltage control, frequency response, regulating/operating/contingency reserves, etc.). Because of the high variability of load requirements at the National High Magnetic Field Laboratory (NHMFL) and the increasing penetration of intermittent, utility-scale solar PV projects, ensuring ancillary service adequacy is becoming increasingly important.

Variability of load and fuel diversity concerns both suggest battery energy storage systems (BESS) to be a viable planning resource. The City anticipates the addition of BESS within the 10-yr planning horizon, which among other things will contribute to net summer peak capability and therefore reserve margin.

The City's power supply primarily comes from two generating units, Purdom 8 and Hopkins 2. An outage of either of these units can present operational challenges especially when coupled with transmission limitations (as discussed in Section 3.2.1). The City has evaluated supplemental probabilistic metrics to its current load reserve margin criterion that may better balance resource and ancillary service adequacy with utility and customer costs. The results of this evaluation indicate that there are risks of potential load and resource misalignment during periods other than at the time of the system peak demand. Occasionally, overnight and mid-morning loads are too low for both combined cycle generators to remain on, while the daily peak exceeds what a single unit can provide. Therefore, the City takes this additional issue into consideration.

Purchase contracts could provide some of the diversity desired in the City's power supply resource portfolio. The City has evaluated both short and long-term purchased power options based on conventional sources as well as power offers based on renewable resources. The potential reliability and economic benefits of prospectively increasing the City's transmission import (and export) capabilities has also been evaluated. These evaluations indicate the potential for some electric reliability improvement resulting from the addition of facilities to achieve more transmission import capability. However, the Florida market reflects, as with the City's generation fleet, natural gas-fired generation on the margin most of the time. Therefore, the cost of increasing the City's transmission import capability would not likely be offset by the potential economic benefit from increased power purchase/sale opportunities.

As an additional strategy to address the City's load and resource misalignment, planning staff investigated options for a significantly enhanced DSM portfolio to include an increase in load shifting or load shaping programs. As these programs rely on enrolling and sustaining significant customer participation, they carry some risk as a firm resource. Among other measures dispatchable battery energy storage is being evaluated to provide load shaping services for the overnight low load condition as well as peak day contribution in an N-1 event.

3.2.6 Future Power Supply Resources

The City's 2026 Ten Year Site Plan identifies that no additional power supply resources will be needed to meet forecasted capacity and reserve needs through the 2035 planning horizon;

however, the City will continue to consider additional capacity for resilience, fuel diversity, flexibility, and price stability.

The suitability of this resource plan is dependent on the performance of the City's DSM portfolio (described in Section 2.1.3 of this report), existing unit performance, weather severity and duration, and the City's projected transmission import capability.

Tables 3.1 and 3.2 (Schedules 7.1 and 7.2) provide information on the resources and reserve margins during the next ten years for the City's system. The City has identified no planned capacity changes for the forecasted load and reserve needs through 2035 on Table 3.3 (Schedule 8). All existing capacity resources have been incorporated into the City's dispatch simulation model in order to provide information related to fuel consumption and energy mix (see Tables 2.18, 2.19 and 2.20). Figure C compares seasonal net peak load and the system reserve margin based on summer peak load requirements. Table 3.4 provides the City's generation expansion plan for the period from 2026 through 2035.

Schedule 7.1: Annual Forecast of Capacity and Demand at Summer Peaks

City Of Tallahassee

Schedule 7.1
Forecast of Capacity, Demand, and Scheduled Maintenance at Time of Summer Peak [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Installed Capacity	Firm Capacity Import	Firm Capacity Export	QF [2]	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
2026	725	0	0	12	737	609	128	21	0	128	21
2027	725	0	0	12	737	606	131	22	0	131	22
2028	725	0	0	12	737	604	133	22	0	133	22
2029	725	0	0	12	737	602	135	22	0	135	22
2030	725	0	0	12	737	599	138	23	0	138	23
2031	725	0	0	12	737	596	141	24	0	141	24
2032	725	0	0	12	737	594	143	24	0	143	24
2033	725	0	0	12	737	591	146	25	0	146	25
2034	725	0	0	12	737	591	146	25	0	146	25
2035	725	0	0	12	737	591	146	25	0	146	25

[1] All installed and firm import capacity changes are identified in the proposed generation expansion plan (Table 3.4).
[2] Approximately 20% of Solar Farms 1 and 4 combined rated AC summer capacity.

Schedule 7.2: Annual Forecast of Capacity and Demand at Winter Peaks

City Of Tallahassee

Schedule 7.2
Forecast of Capacity, Demand, and Scheduled Maintenance at Time of Winter Peak [1]

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Total Installed Capacity	Firm Capacity Import	Firm Capacity Export	QF	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
2026/27	795	0	0	0	795	533	262	49	0	262	49
2027/28	795	0	0	0	795	532	263	49	0	263	49
2028/29	795	0	0	0	795	531	264	50	0	264	50
2029/30	795	0	0	0	795	530	265	50	0	265	50
2030/31	795	0	0	0	795	528	267	51	0	267	51
2031/32	795	0	0	0	795	527	268	51	0	268	51
2032/33	795	0	0	0	795	526	269	51	0	269	51
2033/34	795	0	0	0	795	526	269	51	0	269	51
2034/35	795	0	0	0	795	526	269	51	0	269	51
2035/36	795	0	0	0	795	526	269	51	0	269	51

[1] All installed and firm import capacity changes are identified in the proposed generation expansion plan (Table 3.4).

Schedule 8: Planned and Prospective Generating Facility Additions or Changes

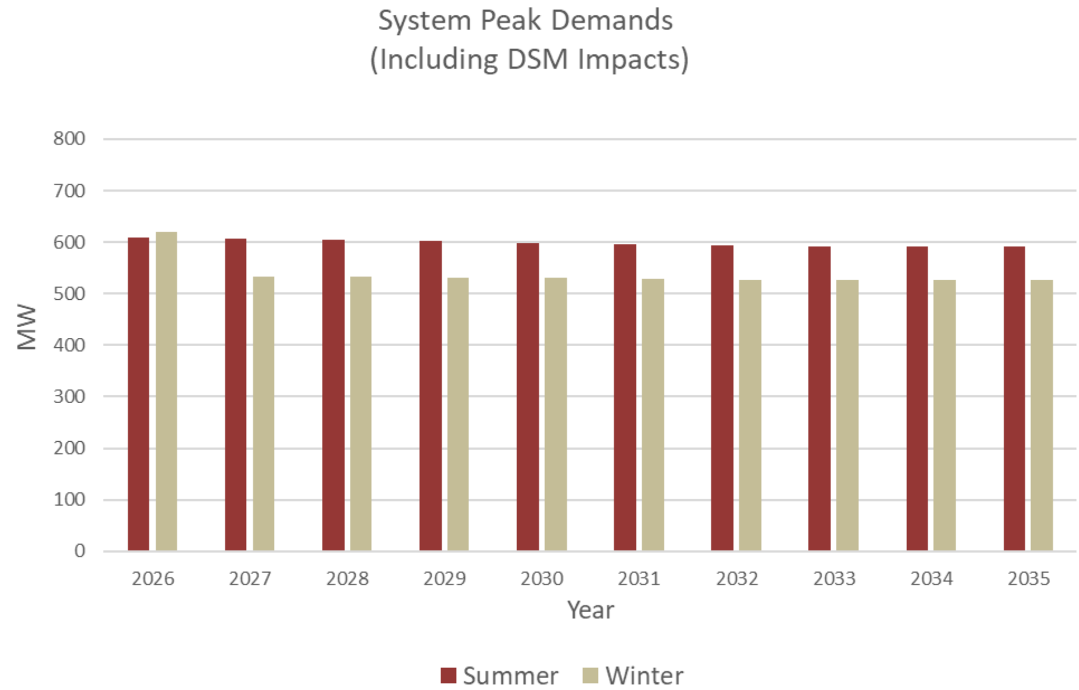
City Of Tallahassee

Schedule 8
Planned and Prospective Generating Facility Additions and Changes

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
								Const.	Commercial	Expected	Gen. Max.	Net Capability [1]		
	Unit		Unit	Fuel		Fuel Transportation		Start	In-Service	Retirement	Nameplate	Summer	Winter	
Plant Name	No.	Location	Type	Pri	Alt	Pri	Alt	Mo/Yr	Mo/Yr	Mo/Yr	(kW)	(MW)	(MW)	Status

No Planned and Prospective Generating Facility Additions and Changes

Figure C: Summer and Winter System Peak Demand Comparisons



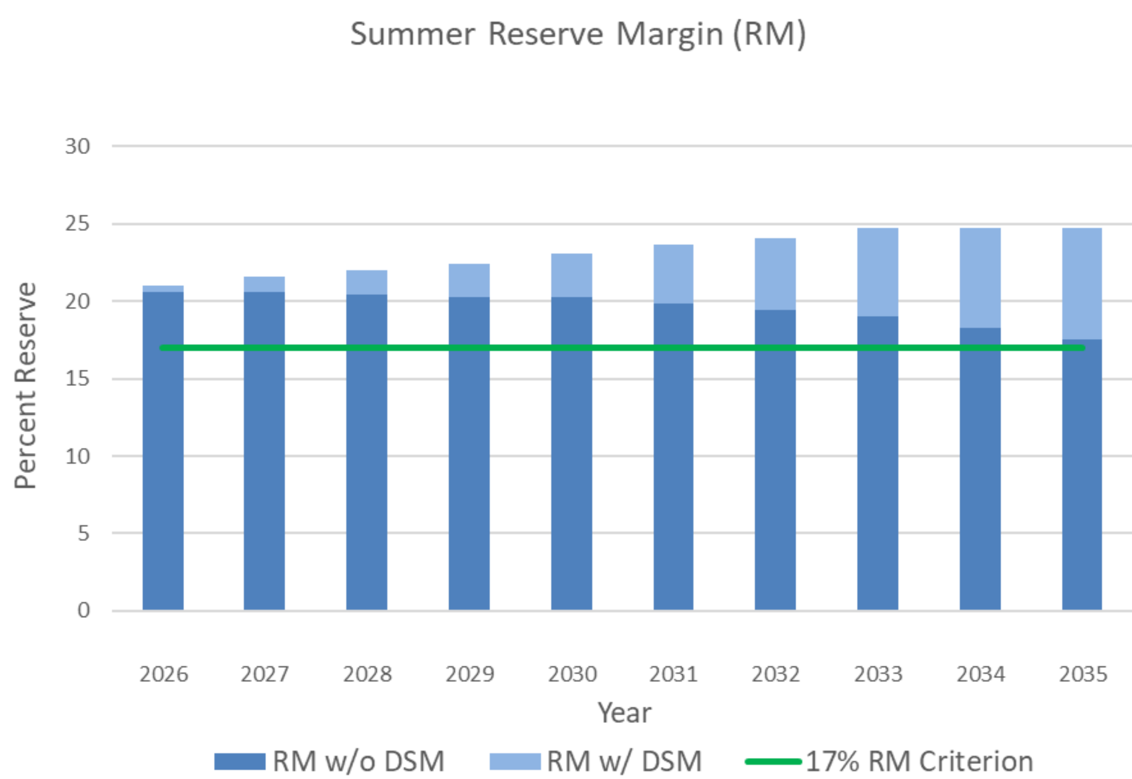


Table 3.4: Generation Expansion Plan

City Of Tallahassee

Generation Expansion Plan

	Load Forecast & Adjustments								
Year	Forecast Peak Demand (MW)	DSM [1] (MW)	Net Peak Demand (MW)	Existing Capacity Net (MW)	Firm Imports (MW)	Firm Exports (MW)	Resource Additions (Cumulative) (MW)	Total Capacity (MW)	Res %
2026	611	2	609	737	0	0	0	737	21
2027	611	4	606	737	0	0	0	737	22
2028	612	6	604	737	0	0	0	737	22
2029	613	8	602	737	0	0	0	737	22
2030	613	10	599	737	0	0	0	737	23
2029	615	15	596	737	0	0	0	737	24
2030	617	18	594	737	0	0	0	737	24
2031	619	24	591	737	0	0	0	737	25
2032	623	28	591	737	0	0	0	737	25
2033	627	32	591	737	0	0	0	737	25

[1] Demand Side Management includes energy efficiency and demand response/control measures.

Chapter IV: Proposed Plant Sites and Transmission Lines

4.1 Proposed Plant Site

As discussed in Chapter 3, the City has determined that no power supply resource additions are required to meet system needs in the 2026-2035 planning period. The timing, site, type and size of any additional power supply resource requirements may vary as the nature of future needs, system constraints, and transmission availability become better defined.

4.2 Transmission Line Additions/Upgrades

The City has been working with its neighboring utilities, Duke and Southern, to identify improvements to assure the continued reliability and commercial viability of the transmission systems in and around Tallahassee. At a minimum, the City attempts to plan for and maintain sufficient transmission import capability to allow for emergency power purchases in the event of the most severe single contingency, the loss of the system's largest generating unit. The City's internal transmission studies have reflected a gradual deterioration of the system's transmission import (and export) capability into the future. This reduction in capability is driven by the expected configuration and use, both scheduled and unscheduled, of facilities in the panhandle region as well as in the City's transmission system. The City is committed to continue to work with Duke and Southern as well as existing and prospective regulatory bodies in an effort to pursue improvements to the regional transmission systems that will allow the City to continue to provide reliable and affordable electric service to the citizens of Tallahassee in the future. The City will provide the Florida Public Service Commission with information regarding any such improvements as it becomes available.

Beyond assessing import and export capability, the City also conducts annual studies of its transmission system to identify further improvements and expansions to provide increased reliability and respond more effectively to certain critical contingencies both on the system and in the surrounding grid in the panhandle. These evaluations have indicated that additional infrastructure projects may be needed to address improvements in capability to deliver power from the Purdom Plant to the load center under certain contingencies.

The City's current transmission expansion plan includes a 115 kV line reconductoring to ensure continued reliable service through this Ten Year Site Plan reporting period consistent with current and anticipated FERC and NERC requirements. Table 4.2 summarizes this proposed improvement identified in the City's transmission planning study.

Schedule 9: Specifications of Proposed Generating Facilities

City Of Tallahassee

Schedule 9
Status Report and Specifications of Proposed Generating Facilities

(1)	Plant Name and Unit Number:	No Proposed Generating Facilities
(2)	Capacity a.) Summer: b.) Winter:	
(3)	Technology Type:	
(4)	Anticipated Construction Timing a.) Field Construction start - date: b.) Commercial in-service date:	
(5)	Fuel a.) Primary fuel: b.) Alternate fuel:	
(6)	Air Pollution Control Strategy:	
(7)	Cooling Status:	
(8)	Total Site Area:	
(9)	Construction Status:	
(10)	Certification Status:	
(11)	Status with Federal Agencies:	
(12)	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	
(13)	Projected Unit Financial Data Book Life (Years) Total Installed Cost (In-Service Year $/kW) Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O & M ($kW-Yr): Variable O & M ($/MWH): K Factor:	

Table 4.2: Planned Transmission Projects

City Of Tallahassee

Planned Transmission Projects, 2026-2035

Project Type	Project Name	From Bus Name	From Bus Number	To Bus Name	To Bus Number	Expected In-Service Date	Voltage (kV)	Line Length (miles)
Reconductor / Rebuild	Line 20A	Sub 7	7507	Sub 16	7516	12/2030	115	3.03
Reconductor / Rebuild	Line 20B	Sub 16	7516	Bradfordville W (DEF)	3105	12/2030	115	3.08

Figure D1: Hopkins Plant Site

Figure D2: Purdom Plant Site