STATISTICS OF THE

Florida Electric Utility Industry





Statistics of the Florida Electric Utility Industry 2018

In partial fulfillment of Section 377.703, Florida Statutes, this publication provides a single comprehensive source of statistics on Florida's electric utility industry. Information was compiled from various sources: filings made with, and reports prepared by, the Florida Public Service Commission; the Florida Reliability Coordinating Council (FRCC); the Office of Economic & Demographic Research; the U.S. Census Bureau; the U.S. Government Publishing Office; the U.S. Department of Labor; and data provided by the Florida electric utilities. The Florida Public Service Commission has not audited the data for accuracy.

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Acronyms, Abbreviations, and Formulas

The following acronyms, abbreviations, and formulas are used in this report:

AFUDC Allowance for Funds Used During Construction

AC Alternating Current

EIA Energy Information Administration

EEI Edison Electric Institute

FCG Florida Electric Power Coordinating Group, Inc.
FERC Federal Energy Regulatory Commission (f/k/a FPC)

FPC Federal Power Commission

FPSC Florida Public Service Commission

FRCC Florida Reliability Coordinating Council (f/k/a FCG)

BBL Barrel (42 gallons)
BTU British Thermal Unit
ECS Extended Cold Standby

IC & GT Internal Combustion and Gas Turbine

MCF = 1,000 cubic feet

SH-TON Short ton (2,000 pounds)

THERM 100,000 BTUs

Kilowatt (kW) = 1,000 watts Megawatt (MW) = 1,000 kilowatts Gigawatt (GW) = 1,000 megawatts

Kilowatt-Hours (kWh) = 1,000 megawatts

Megawatt-Hours (MWh) = 1,000 kilowatt-hours

Gigawatt-Hours (GWh) = 1,000 megawatt-hours

Unit Number (U)

r = Retirement

c = Change or modification of unit

Unit Type (T)

FS = Fossil Steam CC = Combined Cycle

$$\label{eq:ct_def} \begin{split} CT &= Combustion \ Turbine & N &= Nuclear \\ D &= Diesel & UN &= Unknown \end{split}$$

Primary Fuel (F)

HO = Heavy Oil C = Coal

LO = Light Oil SW = Solid Waste NG = Natural Gas UN = Unknown

N = Nuclear

Continued

Acronyms, Abbreviations, and Formulas

Capability

MW-S = Megawatt Summer MW-W = Megawatt Winter NMPLT = Nameplate

Net summer and winter continuous capacity and generator maximum nameplate rating.

Load Factor Formula

Percent Load Factor = Net Energy for Load (MWh) x 100 Peak Load (MW) x 8.760

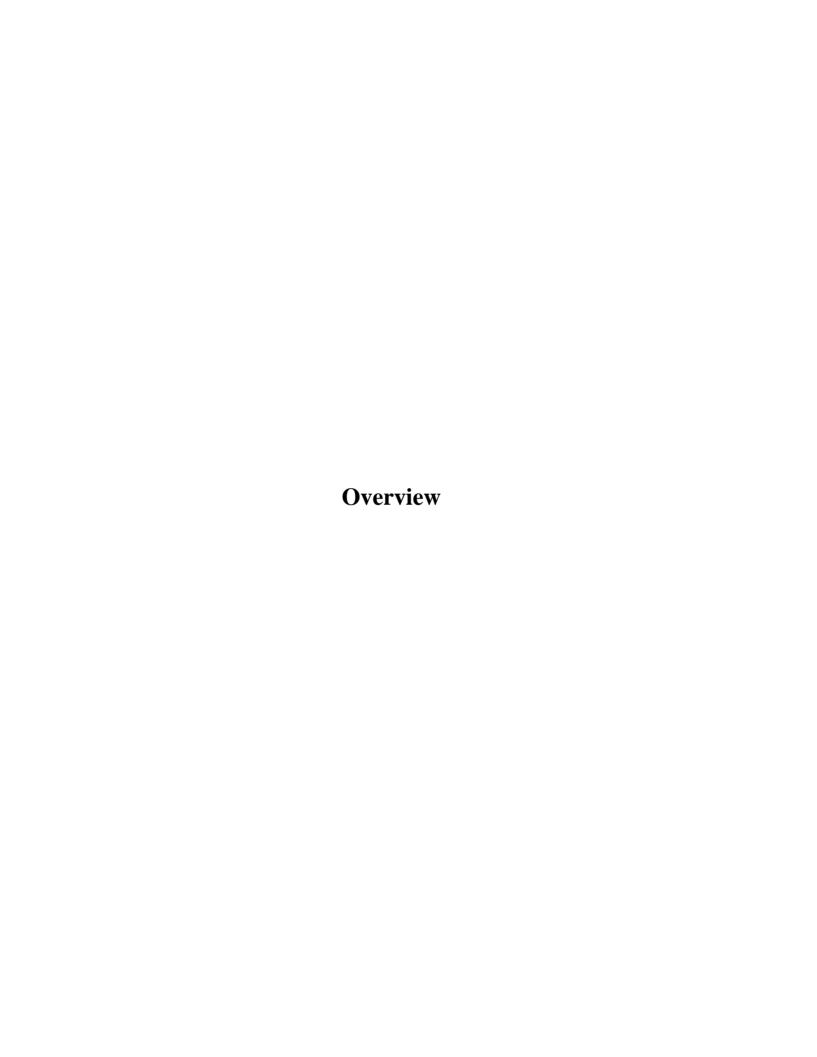
Where:

Net Energy for Load = Total MWh Generated - Plant Use + MWh Received - MWh Delivered

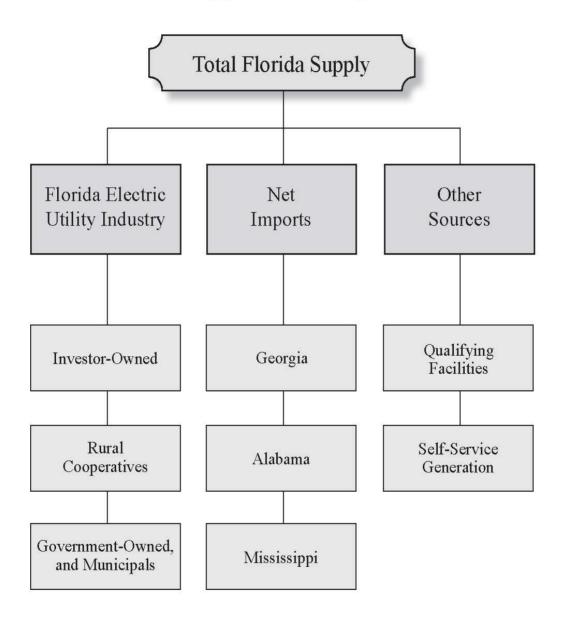
Peak Load = That 60 minute demand interval for which gross generated MWh was highest for the year.

The load factor for a specific utility is an index ranging from zero to one. The load factor reflects the ratio of total MWh actually generated and delivered to ultimate customers to the total MWh that would have been generated and delivered had the utility maintained that level of system net generation observed at the peak period (60 minutes) for every hour of the year, or a total of 8,760 hours.

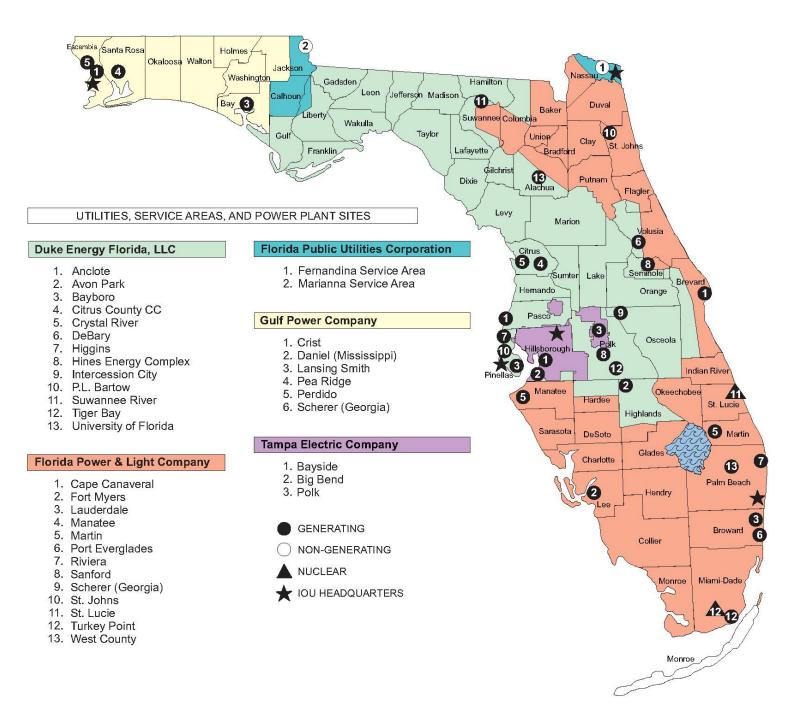
The closer the load factor is to one, the flatter the load curve or the lower the difference between maximum and minimum levels of use is over a one-year period. The closer the load factor is to zero, the greater this difference is, and therefore, the magnitude of peaking across the load curve is greater.



Florida Sources of Electricity by Type of Ownership

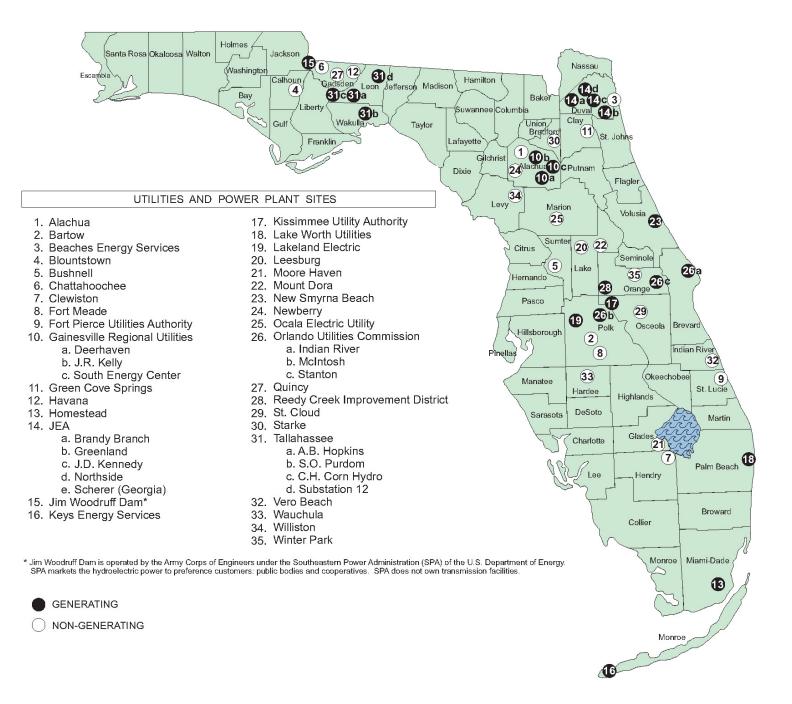


Investor-Owned Electric 2018



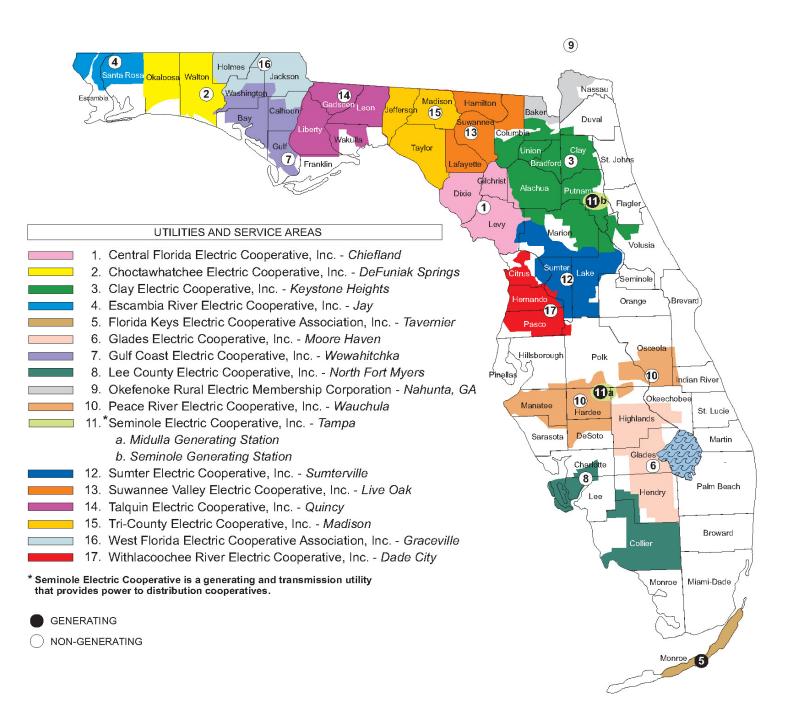
^{*} Excludes solar generation. Service areas are approximations. Information on this map should be used only as a general guideline. For more detailed information, contact individual utilities.

Municipal Electric 2018



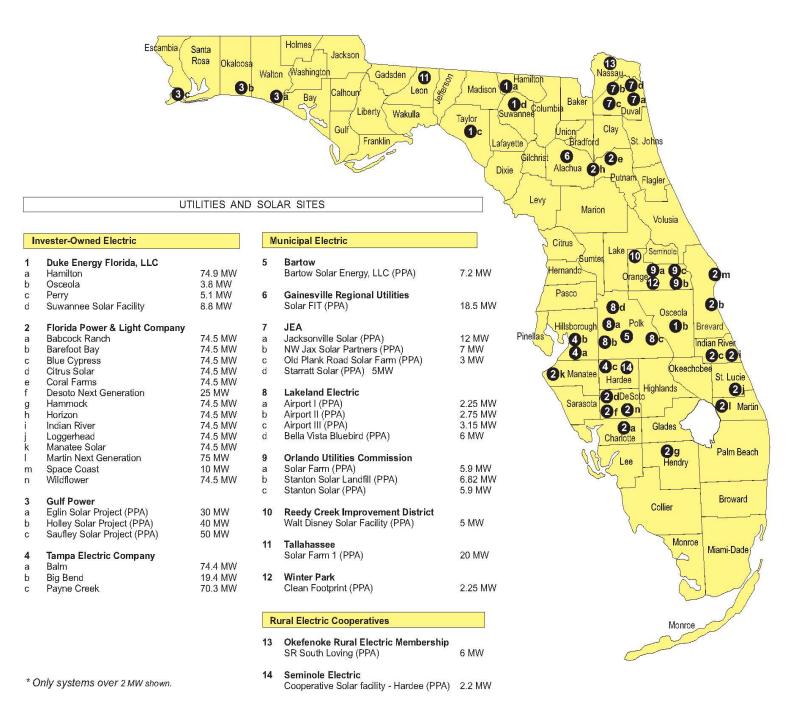
^{*} Excludes solar generation. Service areas are approximations. Information on this map should be used only as a general guideline. For more detailed information, contact individual utilities.

Rural Electric Cooperatives 2018



^{*} Excludes solar generation. Service areas are approximations. Information on this map should be used only as a general guideline. For more detailed information, contact individual utilities.

Florida Solar Electric 2018



^{*} Information on this map should be used only as a general guideline. For more detailed information, contact individual utilities.

Florida Electric Utility Industry 2018

Investor-Owned

Duke Energy Florida, LLC Florida Power & Light Company Florida Public Utilities Company

Gulf Power Company Tampa Electric Company

Generating Municipal

Florida Municipal Power Agency * Gainesville Regional Utilities

Homestead, City of

JEA (f/k/a Jacksonville Electric Authority)

Keys Energy Services (f/k/a Key West Utility Board)

Kissimmee Utility Authority Lake Worth Utilities, City of Lakeland Electric, City of

New Smyrna Beach, Utilities Commission of

Orlando Utilities Commission **
Reedy Creek Improvement District

Tallahassee, City of

Generating Rural Electric Cooperative

Florida Keys Electric Cooperative Association, Inc. ***
PowerSouth Energy Cooperative *
Seminole Electric Cooperative, Inc. *
USCE-Mobile District *

Generating - Other

Southeastern Power Administration * (Jim Woodruff Dam)

Non-Generating Municipal

Alachua, City of Bartow, City of

Beaches Energy Services (f/k/a City of Jacksonville Beach)

Blountstown, City of Bushnell, City of Chattahoochee, City of Clewiston, City of Fort Meade, City of

Fort Pierce Utilities Authority Green Cove Springs, City of

Havana, Town of Leesburg, City of Moore Haven, City of Mount Dora, City of Newberry, City of Ocala Electric Utility Quincy, City of St. Cloud, City of ** Starke, City of Vero Beach, City of Wauchula, City of Williston, City of Winter Park, City of

Non-Generating Rural Electric Cooperative

Central Florida Electric Cooperative, Inc. Choctawhatchee Electric Cooperative, Inc.

Clay Electric Cooperative, Inc.

Escambia River Electric Cooperative, Inc.

Glades Electric Cooperative, Inc. Gulf Coast Electric Cooperative, Inc. Lee County Electric Cooperative, Inc.

Okefenoke Rural Electric Membership Corporation ^

Peace River Electric Cooperative, Inc. Sumter Electric Cooperative, Inc.

Suwannee Valley Electric Cooperative, Inc.

Talquin Electric Cooperative, Inc.
Tri-County Electric Cooperative, Inc.

West Florida Electric Cooperative Association, Inc. Withlacoochee River Electric Cooperative, Inc.

^{*} Wholesale-only generating utility.

^{**} Orlando Utilities Commission serves the City of St. Cloud.

^{***} The Florida Keys Electric Cooperative has a standby unit.

[^] Okefenoke sells power in Florida and Georgia.

Counties Served by Generating Electric Utilities 2018

Utility	County
Investor-Owned	
Duke Energy Florida, LLC	Alachua, Bay, Brevard, Citrus, Columbia, Dixie, Flagler, Franklin, Gadsden, Gilchrist, Gulf, Hamilton, Hardee, Hernando, Highlands, Jefferson, Lafayette, Lake, Leon, Levy, Liberty, Madison, Marion, Orange, Osceola, Pasco, Pinellas, Polk, Seminole, Sumter, Suwannee, Taylor, Volusia, Wakulla
Florida Power & Light Company	Alachua, Baker, Bradford, Brevard, Broward, Charlotte, Clay, Collier, Columbia, DeSoto, Duval, Flagler, Glades, Hardee, Hendry, Highlands, Indian River, Lee, Manatee, Martin, Miami-Dade, Monroe, Nassau, Okeechobee, Palm Beach, Putnam, St. Johns, St. Lucie, Sarasota, Seminole, Suwannee, Union, Volusia
Gulf Power Company	Bay, Escambia, Holmes, Jackson, Okaloosa, Santa Rosa, Walton, Washington
Tampa Electric Company	Hillsborough, Pasco, Pinellas, Polk
Municipal	
Gainesville Regional Utilities	Alachua
Homestead	Miami-Dade
JEA	Clay, Duval, St. Johns
Keys Energy Services	Monroe
Kissimmee Utility Authority	Osceola
Lake Worth Utilities	Palm Beach
Lakeland Electric	Polk
New Smyrna Beach	Volusia
Orlando Utilities Commission *	Orange, Osceola
Reedy Creek Improvement District	Orange, Osceola
Tallahassee	Leon
Rural Electric Cooperative	
Florida Keys Electric Cooperative Association **	Monroe

^{*} Orlando Utilities Commission serves the City of St. Cloud.

^{**} The Florida Keys Electric Cooperative has a standby unit.

Counties Served by Non-Generating Electric Utilities 2018

Utility	County
Investor-Owned	
Florida Public Utilities Company	Calhoun, Jackson, Liberty, Nassau
Municipal	
Alachua	Alachua
Bartow	Polk
Beaches Energy Services	Duval, St. Johns
Blountstown	Calhoun
Bushnell	Sumter
Chattahoochee	Gadsden
Clewiston	Hendry
Fort Meade	Polk
Fort Pierce Utilities Authority	St. Lucie
Green Cove Springs	Clay
Havana	Gadsden
Leesburg	Lake
Moore Haven	Glades
Mount Dora	Lake
Newberry	Alachua
Ocala Electric Utility	Marion
Quincy	Gadsden
Starke	Osceola
St. Cloud *	Bradford
Vero Beach	Indian River
Wauchula	Hardee
Williston	Levy
Winter Park	Orange
Rural Electric Cooperative	
Central Florida Electric	Alachua, Dixie, Gilchrist, Lafayette, Levy, Marion
Choctawhatchee Electric	Holmes, Okaloosa, Santa Rosa, Walton
Clay Electric	Alachua, Baker, Bradford, Clay, Columbia, Flagler, Gilcrist,
	Lake, Levy, Marion, Putnam, Suwannee, Union, Volusia
Escambia River Electric	Escambia, Santa Rosa
Glades Electric	Glades, Hendry, Highlands, Okeechobee
Gulf Coast Electric	Bay, Calhoun, Gulf, Jackson, Walton, Washington
Lee County Electric	Charlotte, Collier, Hendry, Lee
Okefenoke Rural Electric **	Baker, Nassau
Peace River Electric	Brevard, DeSoto, Hardee, Highlands, Hillsborough,
	Indian River, Manatee, Osceola, Polk, Sarasota
Sumter Electric	Citrus, Hernando, Lake, Levy, Marion, Pasco, Sumter
Suwannee Valley Electric	Columbia, Hamilton, Lafayette, Suwannee
Talquin Electric	Franklin, Gadsden, Leon, Liberty, Wakulla
Tri-County Electric	Dixie, Jefferson, Madison, Taylor
West Florida Electric Cooperative Association	Calhoun, Holmes, Jackson, Washington
Withlacoochee River Electric	Citrus, Hernando, Pasco, Polk, Sumter

^{*} The City of St. Cloud is served by Orlando Utilities Commission.

^{**} Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

Highlights of the Florida Electric Utility Industry 2014-2018

	2014	2015	2016	2017	2018
Total Installed Capacity (Megawatts) *	58,888	58,422	58,295	58,506	56,359
Installed Capacity by Fuel Type (Percentage)					
Natural Gas	55%	55%	58%	63%	63%
Coal	21	21	17	20	20
Nuclear	6	6	6	6	6
Other **	18	18	18	11	11
Total *	100%	100%	100%	100%	100%
Energy Sales (Gigawatt-hours)					
Residential	116,529	122,535	123,449	121,687	125,089
Commercial	76,238	88,530	85,147	84,617	86,241
Industrial	25,913	16,617	20,848	20,670	20,782
Other	7,998	6,437	6,708	6,746	6,784
Total	226,678	234,119	236,152	233,720	238,896
Number of Customers (Thousands)					
Residential	8,881	9,130	9,197	9,398	9,515
Commercial	1,079	1,133	1,134	1,150	1,164
Industrial	41	20	29	28	25
Other	199	132	135	143	157
Total	10,200	10,415	10,495	10,719	10,861
Average Residential Bill (1,000 kWh) ***	\$125.50	\$116.62	\$113.58	\$115.86	\$113.77

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, Review of Ten-Year Site Plan, Nov. 2018; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 1.0, p. S-7; Responses to staff data request.

^{**} Other includes: oil, interchange, non-utility generation, and renewables.

^{***} Unweighted average of all utilities: investor-owned, municipal, and rural electric cooperative.

Financial Statistics of Investor-Owned Utilities (IOUs)

Table 1

Rate of Return
2014-2018

	2014	2015	2016	2017	2018
Average per Book Rate of Return					
Duke Energy Florida, LLC	6.10%	5.70%	5.97%	6.39%	5.94%
Florida Power & Light Company	7.58	7.59	7.30	6.95	7.29
Gulf Power Company	5.55	5.45	5.01	5.41	4.02
Tampa Electric Company	6.56	6.52	6.36	6.31	6.26
Average Adjusted Rate of Return					
Duke Energy Florida, LLC	6.48%	6.70%	6.34%	6.38%	5.92%
Florida Power & Light Company	6.81	6.84	6.63	6.32	6.70
Gulf Power Company	5.73	5.79	5.18	5.68	5.84
Tampa Electric Company	6.66	6.64	6.48	6.41	6.24
FPSC Authorized Rate of Return *					
Duke Energy Florida, LLC	7.02%	6.90%	6.65%	6.68%	6.53%
Florida Power & Light Company	6.34	6.37	6.17	6.09	6.22
Gulf Power Company	5.75	5.56	5.45	5.47	5.54
Tampa Electric Company	6.30	6.22	6.12	6.03	6.10
Adjusted Jurisdictional Year-End					
Rate Base (Millions)					
Duke Energy Florida, LLC	\$9,556	\$10,133	\$10,485	\$11,339	\$13,186
Florida Power & Light Company	26,472	27,760	31,457	34,619	36,816
Gulf Power Company	1,930	2,000	2,106	2,487	2,610
Tampa Electric Company	4,248	4,445	4,724	5,592	6,100

^{*} Average Capital Structure - Midpoint.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, December 2018 Earnings Surveillance Report, Schedule 1.

Table 2

Sources of Revenue

(Percentage of Total Sales) * 2014-2018

	2014	2015	2016	2017	2018
Duke Energy Florida, LLC					
Residential	55.84%	56.32%	57.78%	57.71%	58.36%
Commercial	26.28	25.98	25.39	26.08	26.01
Industrial	6.30	6.21	5.82	5.92	5.55
Other	6.89	6.80	6.56	6.76	6.66
Sales for Resale	4.69	4.70	4.45	3.52	3.42
Total	100%	100%	100%	100%	100%
Total Sales (Millions)	\$4,578.10	\$4,661.86	\$4,160.85	\$4,248.08	\$4,644.95
Florida Power & Light Company					
Residential	55.35%	56.14%	56.46%	56.77%	56.96%
Commercial	37.42	36.79	36.59	36.52	35.88
Industrial	1.85	1.81	1.77	1.75	1.71
Other	0.80	0.79	0.82	0.85	0.80
Sales for Resale	4.58	4.47	4.37	4.12	4.65
Total	100%	100%	100%	100%	100%
Total Sales (Millions)	\$11,016.83	\$11,196.35	\$10,532.48	\$11,421.96	\$11,231.75
Gulf Power Company					
Residential	45.93%	49.30%	50.55%	49.86%	49.83%
Commercial	26.73	28.78	28.83	28.53	27.11
Industrial	9.99	10.43	10.63	9.97	9.35
Other	0.30	0.31	0.31	0.33	0.36
Sales for Resale	17.05	11.17	9.69	11.31	13.35
Total	100%	100%	100%	100%	100%
Total Sales (Millions)	\$1,518.01	\$1,489.56	\$1,415.66	\$1,443.92	\$1,400.38
Tampa Electric Company					
Residential	51.17%	52.29%	52.55%	52.44%	53.12%
Commercial	30.58	30.56	30.11	30.11	28.99
Industrial	8.35	8.05	8.17	8.24	8.02
Other	9.24	8.91	8.85	8.78	9.33
Sales for Resale	0.66	0.19	0.32	0.43	0.54
Total	100%	100%	100%	100%	100%
Total Sales (Millions)	\$1,969.01	\$1,989.34	\$1,970.65	\$1,917.86	\$2,009.25

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Annual Report, FERC Form No. 1, p. 300; Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry.

Table 3

Uses of Revenue (Percentage of Total Operating Revenue) * 2014-2018

	2014	2015	2016	2017	2018
Duke Energy Florida, LLC					
Fuel	31.56%	27.38%	26.64%	27.84%	27.09%
Other Operation and Maintenance	30.33	29.86	35.68	32.77	34.61
Depreciation and Amortization	9.86	14.06	7.47	7.93	12.38
Taxes Other Than Income Taxes	6.92	7.10	7.42	7.66	7.62
Income Taxes	6.76	6.27	6.74	6.78	2.08
Interest	3.98	4.01	4.36	5.48	5.24
Net Operating Income Less Interest	10.60	11.32	11.70	11.56	10.98
Total	100%	100%	100%	100%	100%
Total Operating Revenue (Millions)	\$4,940.40	\$4,936.08	\$4,469.85	\$4,512.68	\$4,887.81
Florida Power & Light Company					
Fuel	31.34%	28.66%	26.68%	26.84%	28.40%
Other Operation and Maintenance	20.74	21.99	18.36	28.10	13.12
Depreciation and Amortization	11.55	12.07	12.74	4.39	19.32
Taxes Other Than Income Taxes	10.44	10.55	11.17	11.15	11.36
Income Taxes	8.78	8.45	10.08	11.04	4.51
Interest	3.73	3.72	4.12	4.00	4.62
Net Operating Income Less Interest	13.41	14.57	16.86	14.47	18.67
Total	100%	100%	100%	100%	100%
Total Operating Revenue (Millions)	\$11,189.33	\$11,467.74	\$10,691.84	\$11,594.06	\$11,497.89
Gulf Power Company					
Fuel	37.92%	29.98%	29.07%	28.17%	28.70%
Other Operation and Maintenance	28.29	32.97	32.24	33.90	35.88
Depreciation and Amortization	9.16	9.07	10.85	8.93	12.87
Taxes Other Than Income Taxes	6.99	7.94	8.07	7.67	8.04
Income Taxes	5.53	6.09	5.87	6.94	-1.01
Interest	3.35	3.72	3.70	3.31	3.63
Net Operating Income Less Interest	8.76	10.24	10.21	11.07	11.89
Total	100%	100%	100%	100%	100%
Total Operating Revenue (Millions)	\$1,590.59	\$1,483.01	\$1,484.63	\$1,516.49	\$1,465.15
Tampa Electric Company					
Fuel	35.73%	31.78%	28.73%	30.99%	30.71%
Other Operation and Maintenance	23.83	24.01	25.82	22.22	26.91
Depreciation and Amortization	11.20	13.88	15.58	11.33	12.43
Taxes Other Than Income Taxes	7.63	7.62	7.72	8.15	8.14
Income Taxes	6.53	6.98	6.39	8.49	3.14
Interest	4.60	4.66	4.53	5.24	4.95
Net Operating Income Less Interest	10.49	11.08	11.23	13.58	13.71
Total	100%	100%	100%	100%	100%
Total Operating Revenue (Millions)	\$2,029.54	\$2,053.05	\$2,024.12	\$1,987.79	\$2,068.73

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Annual Report, FERC Form No. 1, pp. 114, 117, 311, 320-321, and 323; Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry.

Table 4

Proprietary Capital and Long-Term Debt *
December 31, 2018

	Duke Energy Florida, LLC	Florida Power & Light Company	Gulf Power Company	Tampa Electric Company
Proprietary Capital (Thousands)				
Common Stock	\$0	\$1,373,069	\$678,060	\$119,697
Preferred Stock	0	0	0	0
Retained Earnings	4,325,407	9,046,543	265,343	197,570
Other Paid-In Capital	1,766,035	10,605,413	977,157	2,550,840
Other Adjustments	7,006	-3,741	-529	-1,708
Total Proprietary Capital	\$6,098,448	\$21,021,284	\$1,920,031	\$2,866,399
Long-Term Debt (Thousands)				
Bonds	\$5,525,000	\$11,483,271	\$0	\$2,291,730
Other Long-Term Debt and/or Adjustments	564,107	153,030	1,294,597	-5,967
Total Long-Term Debt	\$6,089,107	\$11,636,301	\$1,294,597	\$2,285,763
Total Proprietary Capital and Long-Term Debt	\$12,187,555	\$32,657,585	\$3,214,628	\$5,152,162
Proprietary Capital (Percent)				
Common Stock	0.0%	4.2%	21.1%	2.3%
Preferred Stock	0.0	0.0	0.0	0.0
Retained Earnings	35.5	27.7	8.3	3.8
Other Paid-In Capital	14.5	32.5	30.4	49.5
Other Adjustments	0.1	0.0	0.0	0.0
Total Proprietary Capital	50.0%	64.4%	59.7%	55.7%
Long-Term Debt (Percent)				
Bonds	45.3%	35.2%	0.0%	44.5%
Other Long-Term Debt and/or Adjustments	4.6	0.5	40.3	-0.1
Total Long-Term Debt	49.9%	35.6%	40.2%	44.4%
Total Proprietary Capital and Long-Term Debt	100%	100%	100%	100%

^{*} May not total due to rounding.

 $Source: Florida\ Public\ Service\ Commission,\ 2018\ Annual\ Report,\ FERC\ Form\ No.\ 1,\ p.\ 112.$

Table 5

Financial Integrity Indicators
2014-2018

	2014	2015	2016	2017	2018
Times Interest Earned with AFUDC					
Duke Energy Florida, LLC	4.35 x	4.35 x	5.01 x	3.59 x	3.24 x
Florida Power & Light Company	6.38	6.61	6.84	6.96	5.79
Gulf Power Company	5.05	5.09	5.21	5.56	3.62
Tampa Electric Company	4.64	4.70	4.68	5.23	4.34
Times Interest Earned without AFUDC					
Duke Energy Florida, LLC	4.34 x	4.31 x	4.82 x	3.35 x	2.99 x
Florida Power & Light Company	6.27	6.42	6.64	6.76	5.59
Gulf Power Company	4.75	4.79	5.21	5.55	3.62
Tampa Electric Company	4.48	4.45	4.34	5.20	4.20
AFUDC as a Percentage of Net Income					
Interest Coverage Ratio					
Duke Energy Florida, LLC	0.24 %	1.76 %	6.29 %	8.35 %	5.05 %
Florida Power & Light Company	2.94	4.88	5.09	4.90	5.00
Gulf Power Company	10.93	10.80	-0.01	0.07	0.08
Tampa Electric Company	6.08	9.26	12.44	0.75	4.73
Percent Internally Generated Funds					
Duke Energy Florida, LLC	116.65 %	82.02 %	96.78 %	69.21 %	62.87 %
Florida Power & Light Company	64.75	74.83	82.44	45.38	82.29
Gulf Power Company	51.15	100.65	142.32	90.11	9.95
Tampa Electric Company	62.78	75.04	87.81	112.53	52.82

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, December 2018 Earnings Surveillance Report, Schedule 1.

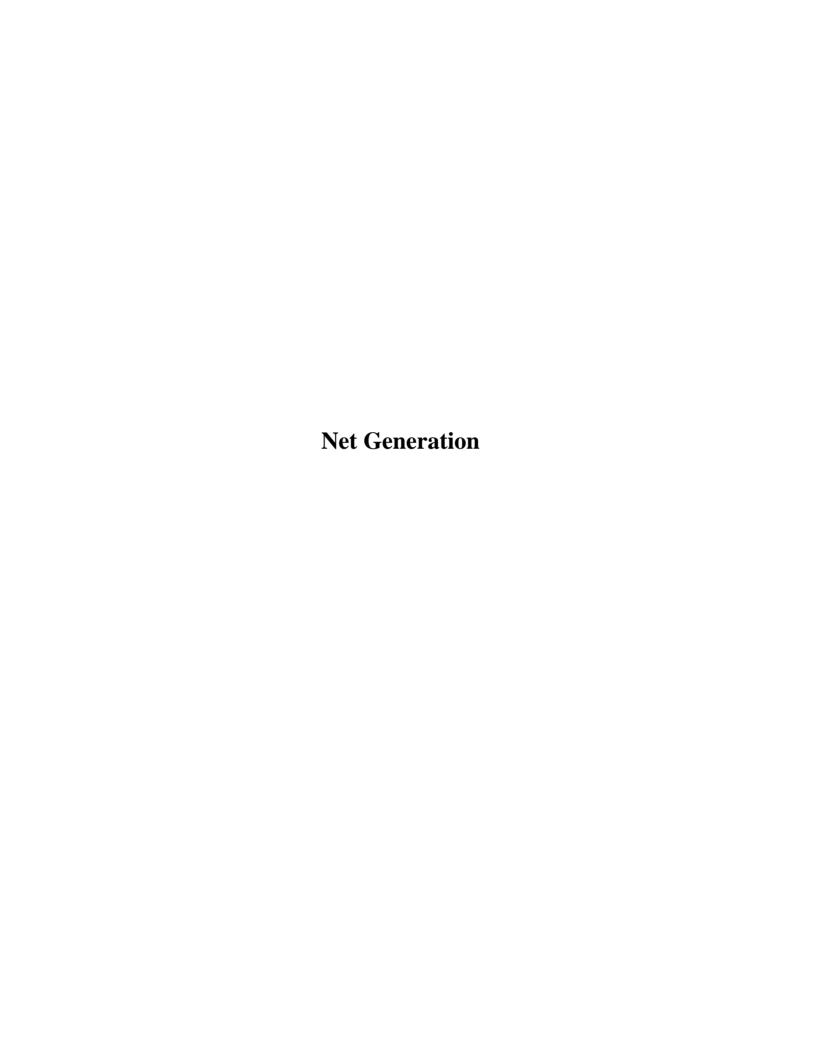


Table 6
Net Energy for Load
2009-2018

	Total	Investor	-Owned	Oth	er *
	Net Energy for Load	Quantity		Quantity	
Year	(Gigawatt-Hours)	(Gigawatt-Hours)	Percent of Total	(Gigawatt-Hours)	Percent of Total
2009	239,414	187,345	78.3%	52,069	21.7%
2010	247,169	193,820	78.4	53,349	21.6
2011	237,658	186,328	78.4	51,330	21.6
2012	234,366	182,998	78.1	51,368	21.9
2013	235,025	183,156	77.9	51,869	22.1
2014	238,611	188,310	78.9	50,301	21.1
2015	248,406	197,137	79.4	51,269	20.6
	2.40.040	404.4			
2016	248,019	196,676	79.3	51,343	20.7
2017	246,033	195,679	79.5	50,354	20.5
	3,322		,,,,,,		
2018	249,266	199,390	80.0	49,876	20.0

^{*} Includes municipal, rural electric cooperative, and federally-owned utilities.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, Utility Ten-Year Site Plans (April 2019), Schedule Nos. 2.3 and 3.3; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 9.1, p. S-17.

Table 7

Net Energy for Load (NEL) by Fuel Type and Other Sources * 2009-2018

	Coal		Oil		Natural Gas	as	Nuclear		Hydro		NEL	Other 5	Other Sources	NEL
Year	Gigawatt-Hours	Percent	Gigawatt-Hours Percent Gigawatt-Hours Percent Gi	Percent	Gigawatt-Hours	Percent	gawatt-Hours Percent Gigawatt-Hours	Percent	Percent Gigawatt-Hours Percent Subtotal	Percent	Subtotal	NUG **	NUG ** Other ***	Total
2009	57,901	27.6%	6,283	3.0%	116,062	55.4%	29,202	13.9%	28	0.0%	209,476	2,956	26,982	239,414
2010	61,323	28.3	5,925	2.7	125,546	57.8	24,215	11.2	25	0.0	217,034	2,971	27,164	247,169
2011	56,014	25.8	1,178	0.5	137,243	63.2	22,828	10.5	8	0.0	0.0 217,271	2,611	17,776	237,658
2012	47,542	21.8	682	0.3	151,856	9.69	18,088	8.3	6	0.0	218,177	2,982	13,207	234,366
2013	50,775	23.3	487	0.2	140,187	64.3	26,672	12.2	29	0.0	218,150	3,182	13,693	235,025
2014	55,410	24.7	747	0.2	140,348	62.6	27,730	12.4	162	0.1	224,097	1,799	12,715	238,611
2015	46,685	20.2	592	0.3	156,348	67.5	27,872	12.0	162	0.1	231,659	1,841	14,906	248,406
2016	43,638	18.9	1,733	0.8	156,007	67.7	29,052	12.6	25	0.0	230,455	171	17,393	248,019
2017	42,573	18.4	487	0.2	159,719	689	29,080	12.5	17	0.0	231,876	1,942	12,215	246,033
2018	37,798	16.0	527	0.2	169,438	71.5	29,153	12.3	24	0.0	0.0 236,940	148	14,004	251,092

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 9.1, p. S-17.

^{**} Non-utility generation.

^{***} Includes net interchange, non-hydro renewables, and other.

Table 8

Projected Net Energy for Load by Fuel Type and Other Sources
(Gigawatt-Hours)
2019-2028

	Net Energy	Interchange				Natural		
Year	for Load	& Other *	Nuclear	Coal	Oil	Gas	Hydro	NUG
2019	248,490	15,287	31,486	37,486	140	161,963	19	2,109
2020	250,625	17,151	31,559	36,932	68	162,779	19	2,117
2021	252,352	18,622	31,481	38,166	72	161,880	19	2,112
2022	254,286	24,919	31,458	35,183	70	160,523	19	2,114
2023	255,658	26,016	31,486	28,319	61	167,642	19	2,115
2024	258,007	27,278	31,546	29,434	91	168,640	19	999
2025	259,742	26,405	31,462	30,443	109	170,614	19	690
2026	261,844	28,038	31,468	30,165	139	171,818	19	197
2027	264,070	27,817	31,445	31,196	152	173,243	19	198
2028	265,332	36,204	30,865	26,804	86	171,215	5	155

^{*} Includes net interchange, non-hydro renewables, and other.

 $Source: Florida\ Reliability\ Coordinating\ Council,\ Regional\ Load\ and\ Resource\ Plan,\ State\ Supplement\ (July\ 2019),\ FRCC\ Form\ 9.1,\ p.\ S-17.$

Table 9

Projected Net Energy for Load by Percentage of Fuel Type and Other Sources 2019-2028

Year	Net Energy for Load *	Interchange & Other **	Nuclear	Coal	Oil	Natural Gas	Hydro	NUG
2019	100%	6.15%	12.67%	15.09%	0.06%	65.18%	0.01%	0.85%
2020	100	6.84	12.59	14.74	0.03	64.95	0.01	0.84
2021	100	7.38	12.48	15.12	0.03	64.15	0.01	0.84
2022	100	9.80	12.37	13.84	0.03	63.13	0.01	0.83
2023	100	10.18	12.32	11.08	0.02	65.57	0.01	0.83
2024	100	10.57	12.23	11.41	0.04	65.36	0.01	0.39
2025	100	10.17	12.11	11.72	0.04	65.69	0.01	0.27
2026	100	10.71	12.02	11.52	0.05	65.62	0.01	0.08
2027	100	10.53	11.91	11.81	0.06	65.60	0.01	0.07
2020	101	12.64	11.60	10.10	0.02	64.50	0.00	0.00
2028	101	13.64	11.63	10.10	0.03	64.53	0.00	0.06

^{*} May not total due to rounding.

 $Source: Florida\ Reliability\ Coordinating\ Council,\ Regional\ Load\ and\ Resource\ Plan,\ State\ Supplement\ (July\ 2019),\ FRCC\ Form\ 9.1,\ p.\ S-17.$

^{**}Includes net interchange, non-hydro renewables, and non-utility generation.



Table 10

Installed Nameplate Capacity/Firm Summer Net Capability
(Megawatts)
2009-2018

	Hydro-	Conventional	Nuclear	Combustion	Internal	Combined	Solar	
Year	Electric	Steam	Steam	Turbine	Combustion	Cycle	Photovoltaic	Total *
2009	52	19,611	3,991	8,096	184	20,275	0	52,208
2010	52	20,563	3,913	7,278	175	21,245	0	53,226
2011	52	19,909	3,947	8,013	171	22,908	0	54,999
2012	52	17,837	3,471	8,697	153	22,192	0	52,402
		4= 00=						
2013	52	17,837	3,471	8,697	153	22,192	0	52,402
2014	52	17,684	3,600	7,755	115	25,312	15	54,533
2015	51	17,616	3,599	7,940	108	24,866	15	54,195
2016	51	16,774	3,599	7,345	108	26,130	132	54,139
2017	51	16,649	3,599	6,830	125	27,662	148.1	55,064
2018	51	12,770	3,625	7,563	134	28,137	599	52,879

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 1.0, pp. 8-20, S-8, and S-9.

Table 11

Installed Nameplate Capacity/Summer Net Capability by Type of Ownership

(Megawatts) 2009-2018

		Investor-Owned		Municipal, Rural Elec	etric Cooperative, and
Year	Total for State *	Quantity	Percent of Total	Quantity	Percent of Total
2009	52,208	39,788	76.21%	12,420	23.79%
2010	53,226	40,161	75.45	13,065	24.55
2011	54,999	41,367	75.21	13,633	24.79
2012	52,402	38,890		13,512	25.78
2013	52,402	38,890	74.22	13,512	25.78
2014	54,533	41,266	75.67	13,267	24.33
2015		41,018	75.69		24.33
	54,195			13,177	
2016	54,139	41,050	75.82	13,089	24.18
2017	55,064	41,915	76.12	13,149	23.88
2018	52,879	40,793	77.14	12,086	22.86

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 1.0, pp. 7-20, S-8, and S-9.

^{**} USCE-Mobile District and Jim Woodruff Dam.

Table 12

Installed Capacity by Fuel and Technology
(Megawatts)

2016-2018

Fuel	Technology	2016	2017	2018
Natural Gas				
	Combined Cycle	24,384	25,758	27,321
	Turbine & Diesel	6,107	6,280	5,555
	Steam	2,057	5,060	5,060
Total Natural Gas		32,548	37,098	37,936
Percentage of Total		58.38%	62.70%	63.29%
Coal				
	Steam	9,161	11,736	11,486
	Combined Cycle	220	220	220
Total Coal		9,381	11,956	11,706
Percentage of Total		16.83%	20.21%	19.53%
Oil				
	Turbine & Diesel	2,390	1,551	1,518
	Steam	3,640	0	0
Total Oil		6,030	1,551	1,518
Percentage of Total		10.82%	2.62%	2.53%
Nuclear				
	Steam	3,599	3,599	3,599
Total Nuclear		3,599	3,599	3,599
Percentage of Total		6.46%	6.08%	6.00%
Other *				
		4,197	4,968	5,180
Total Other		4,197	4,968	5,180
Percentage of Total		7.53%	8.40%	8.64%
Total Installed Capacity		55,755	59,172	59,939
Percentage of Total **		100%	100%	100%

^{*} Includes all renewable resources, net interchange, and non-utility generation.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, Review of the Ten-Year Site Plans, Nov. 2018.

^{**} May not total due to rounding.

Table 13

Installed Winter and Summer Net Capacity by Utility *
(Megawatts)
2017-2018

	Winter Ne	et Capacity	Summer Net Capacity		
Utility	2017	2018	2017	2018	
Investor-Owned					
Duke Energy Florida, LLC	9,807	10,865	8,720	9,792	
Florida Power & Light Company	27,772	25,008	26,120	23,971	
Gulf Power Company	2,311	2,304	2,272	2,265	
Tampa Electric Company	5,196	5,071	4,803	4,764	
Generating Municipal					
Florida Municipal Power Agency **	1,324	1,324	1,284	1,284	
Gainesville Regional Utilities	659	661	630	631	
Homestead	32	32	32	32	
JEA	4,110	3,104	3,769	2,771	
Keys Energy Services	37	37	37	37	
Kissimmee Utility Authority	254	254	242	242	
Lake Worth Utilities	80	80	77	77	
Lakeland Electric	890	890	844	844	
New Smyrna Beach	48	48	44	44	
Orlando Utilities Commission ***	1,531	1,531	1,493	1,493	
Reedy Creek Improvement District	54	54	54	54	
Tallahassee	772	702	700	632	
Generating Rural Electric Cooperative					
PowerSouth Energy **	2,086	2,060	1,887	1,861	
Seminole Electric **	2,178	2,215	2,012	2,041	
USCE-Mobile District **	44	44	44	44	
Total Utility ^	59,185	56,284	55,064	52,879	
Total Non-Utility ^^	3,709	3,737	3,442	3,480	
Total State of Florida ^	62,894	60,021	58,506	56,359	

^{*} Includes generation physically located outside Florida if it serves load in Florida.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 1.0, pp. 7 and S-7.

^{**} Wholesale-only generating utility.

^{***} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

[^] May not total due to rounding.

^{^^} Does not include the capacity of merchant plants.

Table 14

Summer Net Capacity by Generation by Utility * (Megawatts) December 31, 2018

	Hydro-	Conventional	Nuclear	Combustion	Internal	Combined	Solar	
Utility	Electric	Steam	Steam	Turbine	Combustion	Cycle	photovoltaic	Total
Investor-Owned								
Duke Energy Florida, LLC	0	2,425	0	2,092	0	5,224	51	9,792
Florida Power & Light Company	0	2,252	3,479	2,195	0	15,594	452	23,972
Gulf Power Company	0	1,641	0	12	3	609	0	2,265
Tampa Electric Company	0	1,477	0	880	0	2,311	96	4,764
Generating Municipal								
Florida Municipal Power Agency **	0	240	86	161	0	796	0	1,284
Gainesville Regional Utilities	0	406	0	110	7	108	0	631
Homestead	0	0	0	0	32	0	0	32
JEA	0	1,308	0	812	0	651	0	2,771
Keys Energy Services	0	0	0	19	18	0	0	37
Kissimmee Utility Authority	0	21	0	25	0	196	0	242
Lake Worth Utilities	0	31	0	46	0	0	0	77
Lakeland Electric	0	311	0	35	55	443	0	844
New Smyrna Beach	0	0	0	44	0	0	0	44
Orlando Utilities Commission ***	0	760	60	197	0	476	0	1,493
Reedy Creek Improvement District	0	0	0	0	0	54	0	54
Tallahassee	0	0	0	92	18	522	0	632
Generating Rural Electric Cooperative								
PowerSouth Energy **	7	639	0	574	0	641	0	1,861
Seminole Electric **	0	1,260	0	270	0	511	0	2,041
USCE-Mobile District **	44	0	0	0	0	0	0	44
Total Utility ^	51	12,770	3,625	7,563	134	28,137	599	52,880
Total Non-Utility ^^								3,480
Total State of Florida ^	51	12,770	3,625	7,563	134	28,137	599	56,360

 $[\]boldsymbol{*}$ Includes generation physically located outside Florida if it serves load in Florida.

^{**} Wholesale-only generating utility.

^{***} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

[^] May not total due to rounding.

^{^^} Does not include the capacity of merchant plants.

Table 15

Nuclear Generating Units December 31, 2018

		Commercial	Maximum	Net Ca	apacity
		In-Service	Nameplate Rating	Summer	Winter
Utility	Location	Month/Year	kW	MW	MW
Florida Power & Light Company		_			
St. Lucie #1	St. Lucie County	May-76	1,080,000	981	1,003
St. Lucie #2	St. Lucie County	Jun-83	919,128	840 *	860 *
Turkey Point #3	Miami-Dade County	Dec-72	877,200	837	859
Turkey Point #4	Miami-Dade County	Sep-73	877,200	821	848

^{*} 14.9% of plant capacity is owned by Orlando Utilities Commission and Florida Municipal Power Agency; figures shown represent FP&L share.

Sources: Florida Public Service Commission, FP&L Ten-Year Site Plan (April 2019), Schedule 1, p. 26; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 1.0, p. 13.

Table 16, Page 1 of 2

Annual Peak Demand

(Megawatts) 2014-2018

Thillie.	2014	2015	2016	2017	2018
Utility	2014	2013	2010	2017	2016
Investor-Owned	9,219	0.475	9,728	9,296	10.222
Duke Energy Florida, LLC Florida Power & Light Company	22,935	9,475 22,959	23,858	23,373	10,323 23,217
	<u> </u>	·	· · · · · · · · · · · · · · · · · · ·	· ·	
Florida Public Utilities Company	NR *	161	147	144	163
Gulf Power Company	2,694	2,495	2,508	2,434	2,809
Tampa Electric Company	4,054	4,013	4,131	4,115	4,044
Generating Municipal					
Florida Municipal Power Agency **	NR	NR	1296	1,263	1,281
Gainesville Regional Utilities	409	421	428	418	410
Homestead	101	102	105	110	106
JEA	2,823	2,863	2,763	2,727	3,080
Keys Energy Services	144	148	148	149	146
Kissimmee Utility Authority	327	335	354	353	356
Lake Worth Utilities	92	93	96	95	95
Lakeland Electric	627	656	646	643	704
New Smyrna Beach	91	101	101	97	108
Orlando Utilities Commission ***	1,297	1,171	1,189	1,378	1,341
Reedy Creek Improvement District	190	189	195	191	188
Tallahassee	574	600	597	598	621
Non-Generating Municipal					
Alachua	26	27	28	28	29
Bartow	59	65	63	63	68
Beaches Energy Services	192	195	178	171	211
Blountstown	9	9	8	9	7,296
Bushnell	6	7	6	6	7
Chattahoochee	8	8	8	7	7
Clewiston	21	22	22	22	NR *
Fort Meade	10	11	9	9	12
Fort Pierce Utilities Authority	106	107	112	112	112
Green Cove Springs	27	28	26	25	31
Havana	6	6	6	6	7

^{*} Not Reported.

^{**} Wholesale-only generating utility.

^{***} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

Table 16, Page 2 of 2

Annual Peak Demand

(Megawatts) 2014-2018

Utility	2014	2015	2016	2017	2018
Non-Generating Municipal (Continued)					
Leesburg	100	106	112	116	116
Moore Haven	3	36	4	4	4
Mount Dora	22	22	22	22	23
Newberry	8	9	8	8	10
Ocala Electric Utility	285	287	305	291	296
Quincy	30	28	26	13	13
Starke	15	15	16	15	17
Vero Beach	159	167	161	157	162
Wauchula	13	13	14	14	14
Williston	8	8	9	8	10
Winter Park	96	95	79	83	77
Generating & Non-Generating					
Rural Electric Cooperative					
Central Florida Electric	128	136	129	123	147
Choctawhatchee Electric	234	225	192	205	0
Clay Electric	775	839	788	735	921
Escambia River Electric	59	55	46	51	64
Florida Keys Electric	156	161	149	154	150
Glades Electric	76	78	68	67	73
Gulf Coast Electric	104	100	90	90	111
Lee County Electric	816	885	868	877	885
Okefenoke Rural Electric *	31	31	28	27	33
Peace River Electric	139	154	161	164	177
PowerSouth Energy **	541	510	440	470	578
Seminole Electric **	3,218	3,403	3,318	4,010	4,024
Sumter Electric	714	805	788	756	889
Suwannee Valley Electric	117	120	107	120	123
Talquin Electric	285	279	253	268	299
Tri-County Electric	72	71	70	67	77
West Florida Electric	136	139	123	128	149
Withlacoochee River Electric	980	1,074	1,019	902	1,191

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Responses to staff data request.

 $[\]ensuremath{^{*}}$ Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

^{**} Wholesale-only generating utility.

Table 17

Projected Summer and Winter Peak Demand
(Megawatts)
2019-2028

Year	Summer Peak	Year	Winter Peak
2019	51,101	2019-2020	47,451
2020	51,587	2020-2021	48,065
2021	52,201	2021-2022	48,558
2022	52,720	2022-2023	49,046
2023	53,248	2023-2024	49,597
2024	53,890	2024-2025	50,035
2025	54,463	2025-2026	50,623
2026	55,089	2026-2027	51,777
2027	55,730	2027-2028	51,662
2028	55,913		50,938

Source: Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form History and Forecast, p. S-1.

Table 18 **Load Factors of Generating Utilities December 31, 2018**

	Net Energy for Load	Peak Load	Load Factor
Utility	(Gigawatt-Hours)	(Megawatts)	(Percentage) *
Investor-Owned			
Duke Energy Florida, LLC	44,266	10,323	49.0%
Florida Power & Light Company	122,447	23,217	60.2
Gulf Power Company	12,051	2,809	49.0
Tampa Electric Company	20,663	4,044	58.3
Municipal			
Florida Municipal Power Agency **	6,139	1,281	54.7
Gainesville Regional Utilities	2,079	410	57.9
Homestead	576	106	62.1
JEA	12,813	3,080	47.5
Keys Energy Services	757	146	59.2
Kissimmee Utility Authority	1,653	356	53.0
Lake Worth Utilities	475	95	57.4
Lakeland Electric	3,180	704	51.6
New Smyrna Beach	447	108	47.2
Orlando Utilities Commission ***	8,303	1,341	70.7
Reedy Creek Improvement District	1,233	188	74.8
Tallahassee	3	621	0.1
Rural Electric Cooperative			
PowerSouth Energy **	2,073	578	40.9
Seminole Electric **	14,912	4,024	42.3

^{*} May not total due to rounding.

Source: Responses to staff data request.

^{**} Wholesale-only generating utility.

^{***} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

Renewable Energy, Energy Efficiency and Conservati	on
Renewable Energy, Energy Efficiency and Conservati	OII

Table 19 **Renewable Generation Capacity**

(Megawatts) 2015-2018

Renewable Type *	2015	2016	2017	2018
Biomass	581	582	583	592
Hydro	64	63	63	51
Landfill Gas	47	87	83	75
Municipal Solid Waste	400			
Solar	228			
Waste Heat	308			
Wind	10			
Total	1,638	1,860	2,207	2,584

 $^{{\}rm *Renewable\ generation\ includes\ investor-owned, customer-owned, and\ non\ utility-owned\ (acquired\ through\ purchase\ power\ agreements)}.$

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Public Service Commission, Review of the Ten-Year Site Plans, Nov. 2018.

Table 20

Customer-Owned Photovoltaic Facilities *
2015-2018

	2015	2016	2017	2018
Number of Solar Energy Systems				
Duke Energy Florida, LLC	2,967	4,445	7,470	12,549
Florida Power & Light Company	4,250	5,411	7,518	11,366
Florida Public Utilities Company	69	87	109	131
Gulf Power Company	465	503	884	1,167
Tampa Electric Company	810	1,097	1,843	3,089
Municipal	1,616	2,375	3,410	5,065
Rural Electric Cooperative	1,423	2,047	2,895	4,464
Total	11,600	15,965	24,129	37,831
Gross Power Rating (MW)(AC)				
Duke Energy Florida, LLC	28	37	58	97
Florida Power & Light Company	40	49	68	99
Florida Public Utilities Company	0.3	0.5	0.6	0.8
Gulf Power Company	2	3	5	8
Tampa Electric Company	10	12	19	32
Municipal	13	19	28	43
Rural Electric Cooperative	9	13	18	30
Total **	102.3	133.5	196.6	310.4
Energy Delivered to the Grid (MWh)				
Duke Energy Florida, LLC	12,153	20,611	29,171	50,957
Florida Power & Light Company	19,922	24,347	30,651	46,992
Florida Public Utilities Company	187	290	345	496
Gulf Power Company	3,849	5,507	8,431	12,719
Tampa Electric Company	4,307	5,983	8,239	23,552
Municipal	5,493	8,436	14,553	22,088
Rural Electric Cooperative	3,678	5,142	6,879	9,985
Total	49,588	70,316	98,269	166,789

^{*} Includes demonstration sites.

Source: Annual Net Metering Report, 2018; Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry.

^{**} May not total due to rounding.

Table 21

Investor-Owned Photovoltaic Facilities *
December 31, 2018

Utility	Name of Plant	In-Service Date	Nameplate Capacity MW **	Total Energy MWh
Duke Energy Florida, LLC				
	Hamilton	Dec-18	74.9	0.0
	Osceola Solar	May-16	3.8	6,330
	Perry Solar	Aug-16	5.1	4,647
	Suwannee Solar	Nov-17	8.8	14,767
Florida Power & Light Company				
	Babcock Ranch Solar Energy Center	Dec-16	74.5	164,967
	Barefoot Bay	March-18	74.5	166,666
	Blue Cypress	March-18	74.5	154,039
	Citrus Solar Energy Center	Dec-16	74.5	165,360
	Coral Farms	Dec-17	74.5	153,603
	DeSoto Next Generation Solar Energy Center	Oct-09	25.0	46,881
	Hammock	March-18	74.5	158,083
	Horizon	Dec-17	74.5	155,194
	Indian River	Dec-17	74.5	162,704
	Loggerhead	March-18	74.5	156,473
	Manatee Solar Energy Center	Dec-16	74.5	166,230
	Martin Next Generation	Dec-10	75.0	50,125*
	Space Coast Next Generation Solar Energy Center	Apr-10	10.0	17,546
	Wildflower	Dec-17	74.5	166,414
Gulf Power Company				
	Eglin Solar Project	Oct-14	30	56,572
	Holley Solar Project	Oct-14	40	77,212
	Saufley Solar Project	Nov-14	50	93,229
Tampa Electric Company				
	Balm	Sept-18	74.4	25,794
	Big Bend	Feb-17	19.4	40,549
	Payne Creek	Sept-18	70.3	37,305
Total			1,306.20	2,190,565

^{*} Includes purchase power agreements and demonstration sites.

Source: Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), Summary of Existing Capacity, p. 21; Responses to staff data request.

^{** 2} megawatt threshold.

Table 22

Demand-Side Management Programs Amount of Load Reduction at the Generator * 2015-2018

	2015	2016	2017	2018
Summer Peak Reduction (MW)				
Duke Energy Florida, LLC	60	176	82	86
Florida Power & Light Company	86	52	62	82
Florida Public Utilities Company	0.8	1.0	0.4	0.4
Gulf Power Company	20	5	5	3
JEA	3	7	4	5
Orlando Utilities Commission **	3	3	6	5
Tampa Electric Company	23	10	15	21
Total ***	195.8	254.0	174.4	201.6
Winter Peak Reduction (MW)				
Duke Energy Florida, LLC	69	193	81	88
Florida Power & Light Company	45	33	40	53
Florida Public Utilities Company	0.4	0.5	0.2	0.2
Gulf Power Company	17	5	4	2
JEA	3	5	2	4
Orlando Utilities Commission **	1	2	5	5
Tampa Electric Company	20	11	16	21
Total ***	155.4	249.5	148.2	173.0
Energy Reduction (GWh)				
Duke Energy Florida, LLC	76	151	82	82
Florida Power & Light Company	156	63	71	86
Florida Public Utilities Company	1.5	2.0	0.8	0.9
Gulf Power Company	48	7	7	5
JEA	7	16	11	38
Orlando Utilities Commission **	14	13	32	35
Tampa Electric Company	34	31	45	51
Total ***	336.5	283.0	248.8	298.0

 $^{{\}rm *Annual\ achievements\ are\ reported.\ Includes\ residential,\ commercial,\ industrial,\ and\ other\ customers.}$

Source: Annual Reports on Demand-Side Management Plans, 2018; Florida Public Service Commission, 2017 Statistics of the Florida Electric Utility Industry.

^{**} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

^{***} May not total due to rounding.



Table 23 **Fuel Requirements**2009-2018

	Coal	Oil *	Natural Gas	Nuclear
Year	(Thousands of Short Tons)	(Thousands of Barrels)	(Billions of Cubic Feet)	(U-235) ** (Trillion BTUs)
2009	26,238	10,285	845	315
2010	27,497	9,971	923	262
2011	25,420	2,395	1,006	253
2012	22,187	868	1,109	198
2013	23,547	911	999	301
2014	25,122	880	837	307
2015	23,217	1,111	1,149	309
2016	20,260	1,442	1,141	321
2017	21,374	4,343	1,190	318
2018	18,195	974	1,262	318

^{*} Residual and distillate.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 9.0, p. S-16.

 $[\]ensuremath{^{**}}$ Uranium-235 is a naturally occurring isotope of Uranium metal.

Table 24 **Projected Fuel Requirements**2019-2028

	Coal	Oil *	Natural Gas	Nuclear
Year	(Thousands of Short Tons)	(Thousands of Barrels)	(Billions of Cubic Feet)	(U-235) ** (Trillion BTUs)
2019	16,799	303	1,136	335
		450		20.5
2020	16,513	158	1,132	336
2021	16,625	158	1,125	335
2022	15,815	160	1,114	335
2023	13,052	149	1,146	335
2024	13,984	242	1,152	335
2025	13,876	291	1,167	335
2026	13,827	359	1,176	335
2027	14,346	399	1,191	335
2028	12,347	229	1,164	

^{*} Residual and distillate.

Source: Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 9.0, p. S-16.

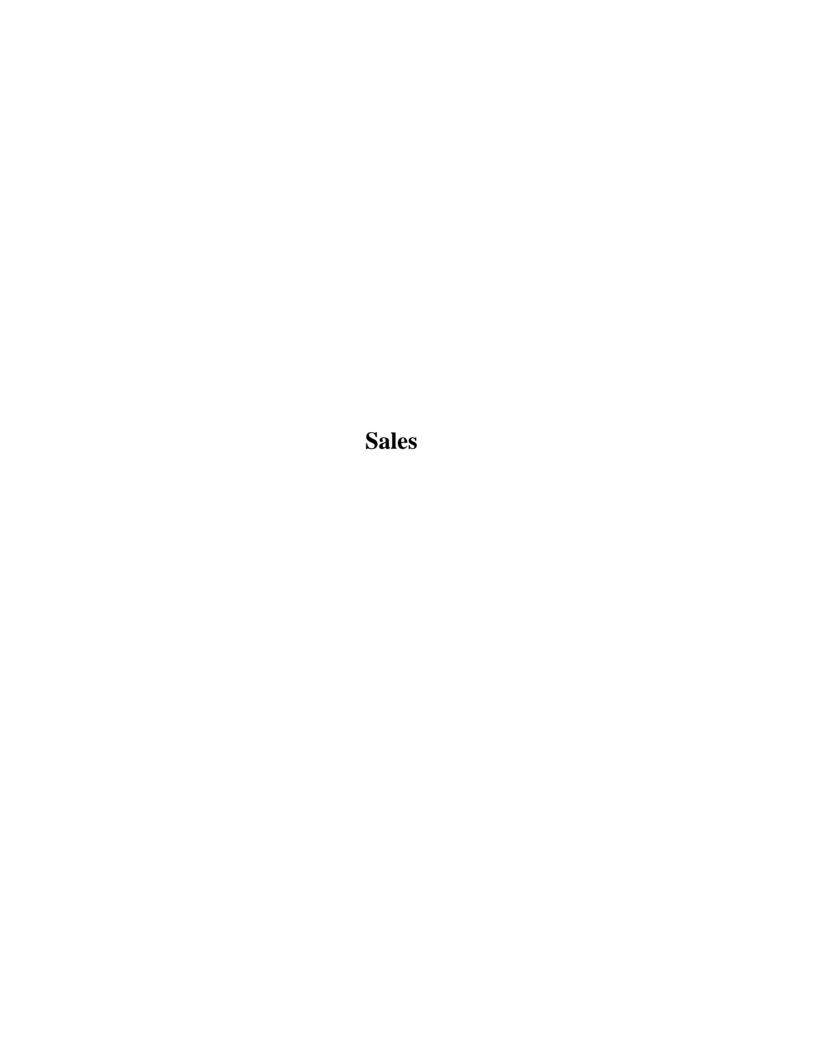


Table 25
Retail Sales
(Megawatt-Hours)

2014-2018

2014 2015 2016 2017 2018 Utility Investor-Owned Duke Energy Florida, LLC 37,240,099 38,553,183 38,773,961 38,024,013 39,144,651 104,389,052 109,820,398 109,662,646 108,870,963 110,053,141 Florida Power & Light Company Florida Public Utilities Company 648,235 638,345 645,696 627,135 634,763 Gulf Power Company 11,390,697 11,085,872 11,081,505 10,808,617 11,132,383 Tampa Electric Company 18,525,739 19,006,474 19,234,525 19,186,517 19,631,465 Municipal 127,049 116,659 121,530 130,432 Alachua 131,006 Bartow 261,505 273,041 277,393 269,667 281,732 702.194 690,398 Beaches Energy Services 713,708 722.486 707 36,307 35,439 35,345 34,112 33,586 Blountstown 23,801 23,252 23,892 23,618 24,494 Bushnell Chattahoochee 36,574 37,890 37,277 36,711 37,053 Clewiston 95,925 100,978 101,094 99,699 99,419 40,512 39.380 40,825 Fort Meade 39.295 40.878 Fort Pierce Utilities Authority 518,446 550,871 551,618 555,768 558,260 1.708.818 1,765,193 1.796.293 1,773,622 1,829,165 Gainesville Regional Utilities Green Cove Springs 96,513 111,677 106,946 103,807 108,398 23,919 Havana 24,107 24,079 23,483 22,820 535,095 548,197 Homestead 493,636 526,881 546,703 12,224,128 11,090,657 12,067,476 12,325,781 JEA 12,215,148 Keys Energy Services 751.178 742.272 712.910 715.008 714.631 Kissimmee Utility Authority 1,383,233 1,472,391 1,521,688 1,532,011 1,583,340 Lake Worth Utilities 373,598 430,307 434,758 439,747 433,186 Lakeland Electric 2,904,061 3,034,075 3,029,959 3,017,655 3,118,406 470,555 Leesburg 441,239 473,329 474,093 492,124 16.178 12.933 15,135 15,356 15,356 Moore Haven 87,009 89,184 89,184 87,050 89,695 Mount Dora New Smyrna Beach 386,381 396,602 414,356 406,222 420,938 32,774 33,986 34,480 35,348 36,712 Newberry Ocala Electric Utility 1,221,227 1,256,904 1,296,691 1,249,383 1,296,827 6,210.381 6,535,984 6,798,822 Orlando Utilities Commission * 6.598.932 6.568.198 125,747 123,847 120,177 115,981 119,778 Quincy 1,127,952 1,136,189 Reedy Creek Improvement District 1.149.020 1.154.677 1,156,067 Starke 66,269 67,841 68,775 66,627 68,416 2,637,695 2,654,983 2,639,582 2,617,331 2,674,812 Tallahassee Vero Beach 704 939 738,209 736,094 723,911 746,147 Wauchula 59,712 63,349 59,293 58,990 61,589 31,935 33,229 32,548 33,237 Williston 30.316 Winter Park 420,523 433,409 437,232 425,029 412,650 Rural Electric Cooperative Central Florida Electric 464,089 471,129 491,417 482,551 500,976 Choctawhatchee Electric 805,232 818,143 835,460 830,572 895,036 Clay Electric 3,127,781 3,152,976 3,279,354 3,226,167 3,316,392 Escambia River Electric 177,604 175,021 174,820 173,238 184,930 Florida Keys Electric 679,462 720,650 709.568 694.334 682,999 307,948 315,608 315,891 316,748 322,918 Glades Electric 336,426 341,231 334,455 339.769 328.655 Gulf Coast Electric Lee County Electric 3,570,274 3,790,662 3,800,338 3.809.847 3,965,037 Okefenoke Rural Electric ** 157,544 157,160 161,794 158,872 167,127 Peace River Electric 624,492 679,718 708.465 736,663 788,506 2,982,645 3,149,363 3,238,522 3,232,485 3,415,867 Sumter Electric Suwannee Valley Electric 551,501 479.238 505.520 533,673 519,391 Talquin Electric 965,142 955,069 953,400 937,675 2,045,962 Tri-County Electric 298,986 300,179 310,193 309,798 314,885 504 163 498 390 482,902 495,256 West Florida Electric 495 708 Withlacoochee River Electric 3.685.143 3,811,169 3,914,371 3,835,764 4,024,257 Respondent Total ^ ^^ 226,678,897 234,118,658 236,151,543 233,719,918 238,896,185

FRCC State Total

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 4.0, p. S-2; Responses to staff data request.

230,056,000

^{*} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

^{**} Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

[^] May not total due to rounding.

^{^^} Respondent total includes sales to other public authorities; therefore, respondent totals are not comparable to FRCC totals.

Table 26

Retail Sales by Class of Service (Megawatt-Hours)

2018

Utility	Residential	Commercial	Industrial	Other *	Total
Investor-Owned					
Duke Energy Florida, LLC	20,635,602	12,171,569	3,107,114	3,230,367	39,144,651
Florida Power & Light Company	59,096,276	47,394,058	3,013,172	549,635	110,053,141
Florida Public Utilities Company	307,879	303,688	15,400	7,796	634,763
Gulf Power Company	5,519,378	3,828,676	1,756,557	27,772	11,132,383
Tampa Electric Company	9,418,149	6,265,971	2,014,009	1,933,336	19,631,465
Municipal					
Alachua	45,011	85,995	0	0	131,006
Bartow	142,909	44,976	83,451	10,396	281,732
Beaches Energy Services	446	262	0	0	707
Blountstown	11,002	20,330	0	2,254	33,586
Bushnell	8,932	7,958	7,604	0	24,494
Chattahoochee	11,192	3,330	21,186	1,344	37,053
Clewiston	50,940	47,093	987	399	99,419
Fort Meade	28,477	12,348	0	0	40,825
Fort Pierce Utilities Authority	240,454	313,866	0	3,940	558,260
Gainesville Regional Utilities	833,940	820,375	174,850	0	1,829,165
Green Cove Springs	51,936	56,462	0	0	108,398
Havana	13,855	10,064	0	0	23,919
Homestead	319,942	38,952	160,874	28,430	548,197
JEA	5,460,246	4,042,025	2,764,645	58,865	12,325,781
Keys Energy Services	353,116	356,489	0	3,304	712,910
Kissimmee Utility Authority	879,291	525,636	159,852	18,562	1,583,340
Lake Worth Utilities	253,196	98,909	0	81,080	433,186
Lakeland Electric	1,524,441	813,132	675,961	104,872	3,118,406
Leesburg	248,973	51,235	0	191,916	492,124
Moore Haven	9,051	5,934	0	372	15,356
Mount Dora	52,307	31,686	0	5,702	89,695
New Smyrna Beach	281,667	54,680	84,591	0	420,938
Newberry	19,987	3,144	7,103	6,478	36,712
Ocala Electric Utility	532,411	161,762	566,104	36,551	1,296,827
Orlando Utilities Commission *	2,587,797	476,654	3,527,203	207,168	6,798,822
Quincy	47,284	52,628	18,365	1,501	119,778
Reedy Creek Improvement District	132	1,126,641	0	9,416	1,136,189
Starke	24,302	44,115	0	0	68,416
Tallahassee	1,122,468	1,521,598	0	30,746	2,674,812
Vero Beach	384,399	342,404	15,079	4,265	746,147
Wauchula	28,340	31,691	0	1,558	61,589
Williston	13,460	14,186	309	5,283	33,237
Winter Park	182,829	229,821	0	0	412,650
Rural Electric Cooperative	0.00	CE 022	11.0==	510=0	500.05
Central Florida Electric	367,098	67,832	11,975	54,070	500,976
Choctawhatchee Electric	668,113	209,764	17,159	0	895,036
Clay Electric	2,270,492	649,074	396,790	36	3,316,392
Escambia River Electric	146,460	32,494	5,275	702	184,930
Florida Keys Electric	401,941	95,124	146,979	38,955	682,999
Glades Electric	158,887	38,871	125,160	0	322,918
Gulf Coast Electric	263,200	29,460	29,147	12,648	
Lee County Electric	2,750,609	1,189,192	2 212	25,236	3,965,037
Okefenoke Rural Electric **	153,062	7,974	3,313	2,778	167,127
Peace River Electric	507,173	223,411	43,539	14,383	788,506
Sumter Electric	2,344,414	774,261	295,912	1,280	3,415,867
Suwannee Valley Electric	304,202	247,299	1 174 525	0	551,501
Talquin Electric	688,411	176,553	1,174,535	6,463	2,045,962
Tri-County Electric	175,921	53,330	76,362	9,271	314,885
West Florida Electric	317,096	35,570	109,998	32,592	495,256
Withlacoochee River Electric	2,829,803	1,000,400	171,729	22,326	4,024,257
Respondent Total ^^ ^^^	125,088,896	86,240,952	20,782,286	6,784,050	
FRCC State Total	119,980,000	86,000,000	17,394,000	6,682,000	230,056,000

^{*} Street and highway lighting, sales to public authorities, and interdepartmental sales.

Source: Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 4.0, p. S-2; Responses to staff data request.

^{**} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

 $^{^{\}wedge}$ Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

^{^^} May not total due to rounding

^{^^^} Respondent total includes sales to other public authorities; therefore, respondent totals are not comparable to FRCC totals.

Table 27

Sales for Resale for Selected Utilities (Megawatt-Hours) 2018

Utility	Sales for Resale	Total Retail Sales *	Total Sales	Resales as Percentage of Total
Investor-Owned				
Duke Energy Florida, LLC	2,383,631	39,144,651	41,528,282	5.74%
Florida Power & Light Company	9,857,076	110,053,141	119,910,217	8.22
Gulf Power Company	4,360,461	11,132,383	15,492,844	28.15
Tampa Electric Company	286,172	19,631,465	19,917,637	1.44
Municipal				
Gainesville Regional Utilities	221,687	1,829,165	2,050,852	10.81%
JEA	82,372	12,325,781	12,408,153	0.66
Orlando Utilities Commission **	1,360,698	6,798,822	8,159,519	16.68
Reedy Creek Improvement District	4,620	1,136,189	1,140,809	0.40
Tallahassee	155,530	2,674,812	2,830,343	5.50
Rural Electric Cooperative				
PowerSouth Energy ***	1,997,292	0	1,997,292	100%
Seminole Electric ***	14,810,089	0	14,810,089	100
Talquin Electric	8,187	2,045,962	2,054,149	0.40

 $[\]ensuremath{^{*}}$ Includes residential, commercial, industrial, and other customers.

Source: Florida Public Service Commission, 2018 Annual Report, FERC Form No. 1, pp. 301 and 311; Responses to staff data request.

 $[\]ensuremath{^{**}}$ The City of St. Cloud is included in the figures of Orlando Utilities Commission.

^{***} Wholesale-only generating utility.

Table 28

Retail Sales by Class of Service (Gigawatt-Hours) 2014-2018

Year	Residential	Commercial	Industrial	Other *	Total Retail Sales
2014	111,826	83,326	17,223	6,271	218,646
2015	117,615	86,027	17,342	6,442	227,426
2016	118,453	86,158	17,248	6,548	228,407
2017	116,739	85,681	17,084	6,467	225,971
2018	119,980	86,000	17,394	6,682	230,056

^{*} Street and highway lighting, sales to public authorities, and interdepartmental sales.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 4.0, p. S-2.

Table 29

Retail Sales by Percentage of Class of Service *
2009-2018

Year	Residential	Commercial	Industrial	Other **
2009	51.78%	34.99%	9.79%	3.44%
2010	53.25	33.96	9.42	3.36
2011	51.94		9.26	
2012	51.06	36.43	9.06	
2013	51.32	36.24	9.04	
		33.63		
2014	51.41		11.43	
2015	52.34	37.81	7.10	
2016	52.28	36.06	8.83	
2017	52.07	36.20	8.84	2.89
2018	52.36	36.10	8.70	2.84

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Table 26.

 $[\]hbox{** Street and highway lighting, sales to public authorities, and interdepartmental sales.}$

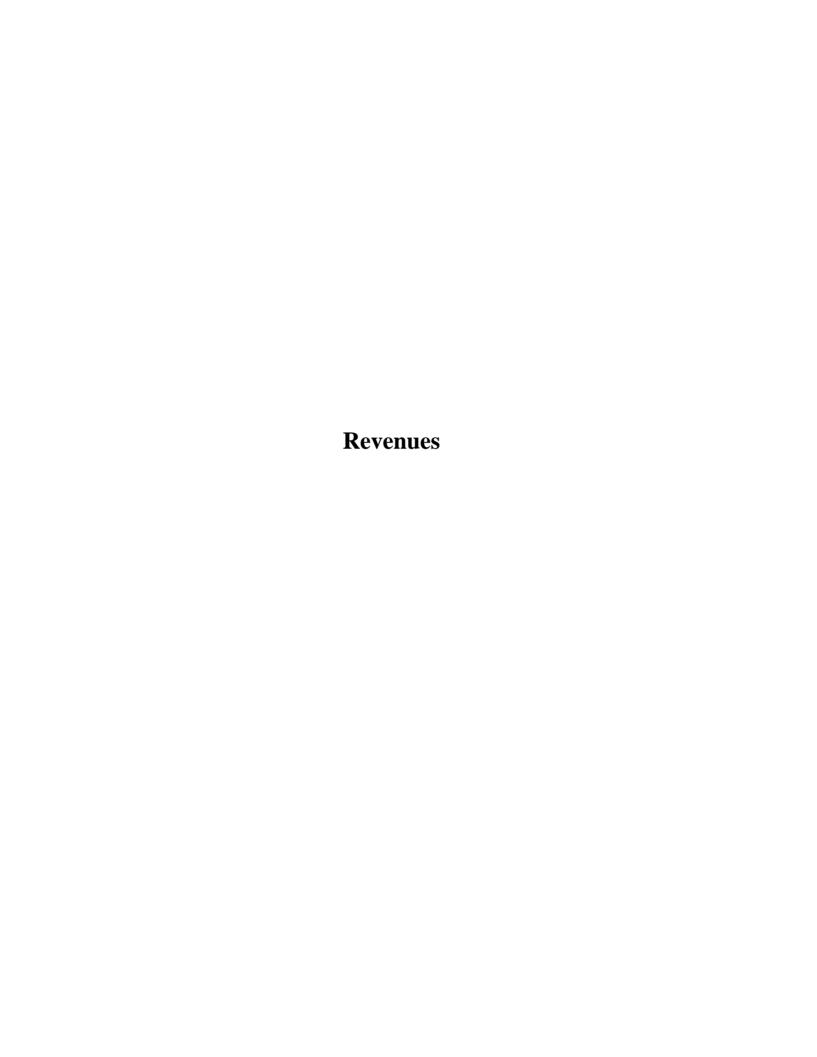


Table 30

Revenues by Class of Service * (Thousands) 2009-2018

Year	Residential	Commercial	Industrial	Other **	Total ***
2009	\$13,879,777	\$8,186,033	\$2,322,558	\$828,870	\$25,217,238
2010	13,130,852	7,165,633	1,869,629	774,006	22,940,120
2011	12,705,770	7,303,597	2,017,392	795,924	22,822,684
2012		6,990,684	1,597,629		
2012	11,852,134	0,990,084	1,397,029	739,474	21,179,921
2013	12,409,792	6,905,538	2,015,606	729,113	22,060,049
2014	13,808,364	7,325,378	2,321,203	826,222	24,281,166
2015	14,235,700	8,419,986	1,347,946	678,308	24,681,941
2016	13,550,470	7,495,717	1,622,082	680,756	23,349,026
2017	14,066,932	7,831,125	1,638,485	684,875	24,221,417
2018	14,503,170	7,925,426	1,535,191	712,436	24,676,222

^{*} The amounts shown reflect revenues for all Florida electric utilities (investor-owned, municipal, and rural electric cooperative).

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Responses to staff data request.

^{**} Street and highway lighting, sales to public authorities, and interdepartmental sales.

^{***} May not total due to rounding..

Table 31

Revenues by Percentage of Class of Service *
2009-2018

Year	Residential	Commercial	Industrial	Other **	
2009	55.0%	32.5%	9.2%	3.3%	
2010	57.2	31.2	8.2	3.4	
2011	55.7	32.0	8.8	3.5	
2012	56.0	33.0	7.5	3.5	
2013	56.3	31.3	9.1	3.3	
2014	56.9	30.2	9.6	3.4	
2015	57.7	34.1	5.5	2.7	
2016	58.0	32.1	6.9	2.9	
2017	58.1	32.3			
2018	58.8				

^{*} May not total due to rounding.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Responses to staff data request; Table 30.

^{**} Street and highway lighting, sales to public authorities, and interdepartmental sales.

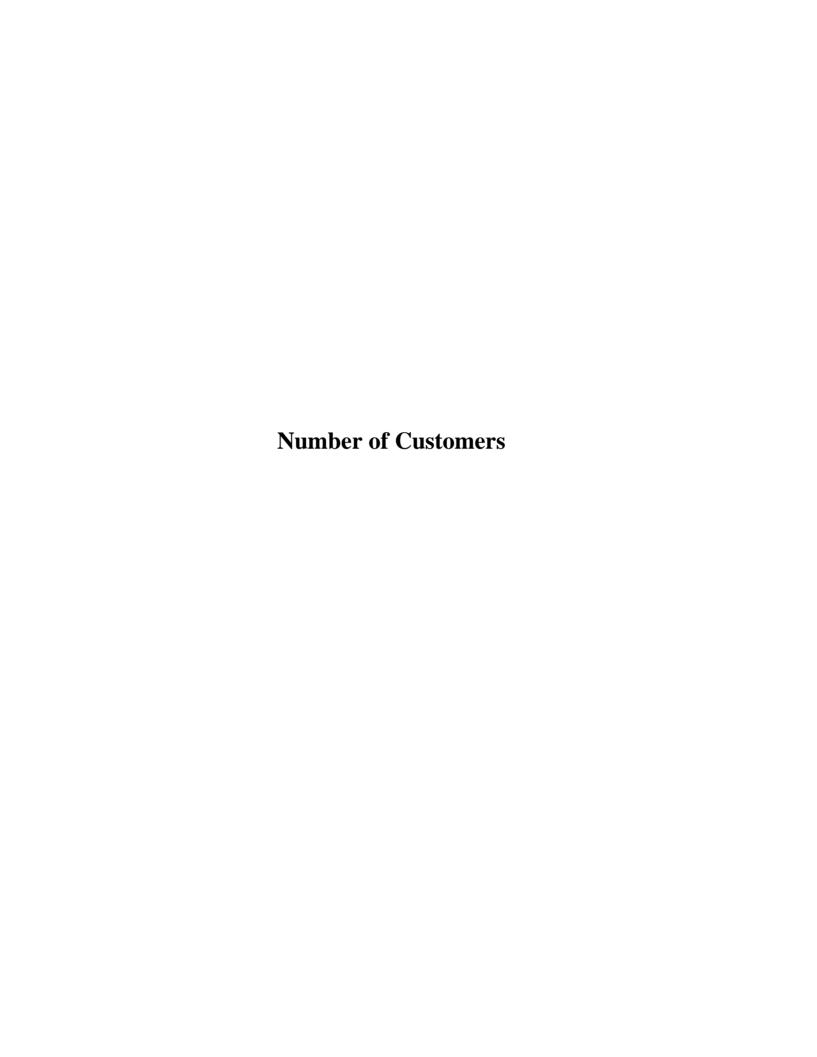


Table 32 **Number of Customers**2014-2018

Utility	2014	2015	2016	2017	2018	Compound Growth Rate
Investor-Owned						
Duke Energy Florida, LLC	1,699,077	1,798,990	1,760,016	1,885,567	1,901,131	2.85%
Florida Power & Light Company	4,708,819	4,806,234	4,869,040	4,901,871	4,961,313	1.31
Florida Public Utilities Company	31,272	31,506	31,787	31,992	31,009	-0.21
Gulf Power Company	442,370	449,471	455,415	461,806	462,983	1.15
Tampa Electric Company	706,160	718,712	730,503	744,691	756,254	1.73
Total Investor-Owned	7,587,698	7,804,913	7,846,761	8,025,927	8,112,690	1.69
Municipal	4.422	4 492	4.522	4.506	1 501	0.000/
Alachua Bartow	4,423	4,482	4,522 12,195	4,506 12,310	4,584 12,397	0.90%
Beaches Energy Services	11,876 34,282	12,036 34,903	34,601	34,609	34,315	1.08 0.02
Blountstown	1,349	1,312	1,324	1,330	1,327	-0.41
Bushnell	1,021	1,031	1,040	1,057	1,055	0.82
Chattahoochee	1,156	1,157	1,161	1,172	1,156	0.00
Clewiston	4,237	4,289	4,315	4,357	4,343	0.62
Fort Meade	2,652	2,803	2,660	2,628	2,635	-0.16
Fort Pierce Utilities Authority	28,166	28,251	28,306	28,257	28,331	0.15
Gainesville Regional Utilities	93,855	94,628	95,161	97,245	97,681	1.00
Green Cove Springs	3,865	3,921	4,058	4,175	4,196	2.08
Havana	1,391	1,427	1,448	1,458	1,457	1.17
Homestead	23,032	23,211	24,031	24,402	30,718	7.46
JEA	426,373	449,263	456,894	464,118	472,061	2.58
Keys Energy Services	30,752	31,167	30,002	29,859	29,728	-0.84
Kissimmee Utility Authority	66,608	68,396	70,400	72,225	74,752	2.93
Lake Worth Utilities	25,783	26,558	26,236	27,105	27,244	1.39
Lakeland Electric	124,018	125,666	127,152	129,113	130,657	1.31
Leesburg	23,483	23,793	24,597	24,400	24,420	0.98
Moore Haven	1,017	863	1,059	1,137	1,137	2.83
Mount Dora	5,712	5,798	5,828	5,851	5,853	0.61
New Smyrna Beach	26,375	26,740	27,561	27,737	28,030	1.53
Newberry	1,687	1,723	1,774	1,820	1,893	2.92
Ocala Electric Utility	49,168	51,896	50,187	50,569	53,485	2.13
Orlando Utilities Commission *	278,790	290,915	300,179	312,973	322,258	3.69
Quincy	4,796	4,767	4,783	4,743	4,786	-0.05
Reedy Creek Improvement District	1,374	1,387	1,463	1,447	1,524	2.62
Starke	2,731	2,759	2,779	2,801	2,794	0.57
Tallahassee	116,709	117,827	119,005	120,050	121,677	1.05
Vero Beach	34,616	34,538	34,893	35,565	35,923	0.93
Wauchula	2,680	2,775	2,798	2,802	2,806	1.16
Williston	1,473	1,552	1,707	1,718	1,744	4.31
Winter Park	14,150	14,392	14,947	15,061	15,565	2.41
Total Municipal	1,449,600	1,496,226	1,519,066	1,548,600	1,582,532	2.22
Rural Electric Cooperative Central Florida Electric	32,734	32,943	33,176	33,434	33,750	0.77%
Choctawhatchee Electric	46,656	47,291	48,675	50,181	51,790	2.64
Choctawnatchee Electric Clay Electric	239,735	170,429	172,861	174,587	176,614	-7.35
Escambia River Electric	10,254	10,429	10,700	11,012	11,197	2.22
Florida Kevs Electric	32,292	32,415	32,723	32,224	32.678	0.30
Glades Electric	16,180	16,373	16,368	16,370	16,344	
Gulf Coast Electric	20,013	20,274	20,565	20,780	20,648	0.23
Lee County Electric	204,023	208,626	211,685	214,668	217,363	1.60
Okefenoke Rural Electric **	10,037	10,999	10,189	10,528	10,586	1.34
Peace River Electric	36,387	38,674	40,296	41,729	43,578	4.61
Sumter Electric	187,106	193,110	194,964	198,656	205,644	2.39
Suwannee Valley Electric	25,426	25,415	25,648	25,932	26,395	0.94
Talquin Electric	52,894	53,213	53,593	53,832	54,218	
Tri-County Electric	17,716	17,830	17,932	18,212	18,391	0.94
West Florida Electric	28,036	28,202	28,347	28,487	28,632	0.53
Withlacoochee River Electric	204,362	208,761	211,243	214,244	217,998	1.63
Total Rural Electric Cooperative	1,163,851	1,115,022	1,128,965	1,144,876	1,165,826	
Respondent Total ^ ^^	10,201,149	10,416,161	10,494,792	10,719,403	10,861,048	1.58
FRCC State Total	9,607,315	9,764,790	9,901,223	10,044,518	10,134,775	

^{*} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

Source: Florida Public Service Commission, 2018 Statistics of the Florida Electric Utility Industry; Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 4.0, p. S-2; Responses to staff data request.

 $[\]hbox{$*$ Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.}$

[^] May not total due to rounding.

^{^^} Respondent total includes sales to other public authorities; therefore, respondent totals are not comparable to FRCC totals.

Table 33

Number of Customers by Class of Service
December 31, 2018

Utility	Residential	Commercial	Industrial	Other *	Total
Investor-Owned					
Duke Energy Florida, LLC	1,691,570	180,351	2,074	27,136	1,901,131
Florida Power & Light Company	4,391,832	553,562	11,601	4,318	4,961,313
Florida Public Utilities Company	23,921	4,216	2	2,870	31,009
Gulf Power Company	405,462	56,678	251	592	462,983
Tampa Electric Company	670,517	74,895	1,588	9,254	756,254
Total Investor-Owned	7,183,302	869,702	15,516	44,170	8,112,690
Municipal					
Alachua	3,862	722	0	0	4,584
Bartow	10,614	1,332	329	122	12,397
Beaches Energy Services	29,964	4,351	0	0	34,315
Blountstown	986	298	0	43	1,327
Bushnell	774	270	11	0	1,055
Chattahoochee	975	116	1	64	1,156
Clewiston	3,432	612	1	298	4,343
Fort Meade	2,338	297	0	0	2,635
Fort Pierce Utilities Authority	23,239	5,090	0	2	28,331
Gainesville Regional Utilities	86,508	11,161	12	0	97,681
Green Cove Springs	3,431	765	0	0	4,196
Havana	1,144	313	0	0	1,457
Homestead	22,550	2,052	575	5,541	30,718
JEA	415,303	52,740	196	3,822	472,061
Keys Energy Services	25,289	4,364	0	75	29,728
Kissimmee Utility Authority	64,739	9,962	51	0	74,752
Lake Worth Utilities	23,399	2,948	0	897	27,244
Lakeland Electric	109,043	12,543	74	8,997	130,657
Leesburg	21,294	2,865	0	261	24,420
Moore Haven	975	127	0	35	1,137
Mount Dora	4,947	814	0	92	5,853
New Smyrna Beach	24,619	3,275	136	0	28,030
Newberry	1,578	177	41	97	1,893
Ocala Electric Utility	42,104	7,552	1,066	2,763	53,485
Orlando Utilities Commission **	210,902	25,021	5,715	80,620	322,258
Quincy	3,970	765	1	50	4,786
Reedy Creek Improvement District	9	1,433	0	82	1,524
Starke	2,037	757	0	0	2,794
Tallahassee Vero Beach	102,395	15,100	0 2	4,182 514	121,677
Wauchula	29,558 2,231	5,849 506	0	69	35,923 2,806
Williston	1,194	394	3	153	1,744
Winter Park	12,848	2.717	0	0	15,565
Total Municipal	1,288,251	177,288	8,214	108,779	1,582,532
	1,200,231	1//,200	8,214	108,779	1,382,332
Rural Electric Cooperative Central Florida Electric	30,208	2,416	635	491	33,750
Choctawhatchee Electric	45,411	6,377	2	0	51,790
Choctawhatchee Electric Clay Electric	156,694	19,869	30	21	176,614
Escambia River Electric	9,924	1,244	6	23	176,614
Florida Keys Electric	26,907	4,746	387	638	32,678
Glades Electric	12,514	3,398	432	038	
Gulf Coast Electric	19,195	927	12	514	20,648
Lee County Electric	198,450	18,913	0	0	217,363
Okefenoke Rural Electric ^	198,430	481	1	77	10,586
Peace River Electric	36,264	7,246	3	65	43,578
Sumter Electric	186,783	18,813	20	28	205,644
Suwannee Valley Electric	23,105	3,290	0	0	26,395
Talguin Electric	50,254	3,312	4	648	54,218
Tri-County Electric	16,560	1,562	13	256	18,391
West Florida Electric	25,276	2,727	13	628	28,632
Withlacoochee River Electric	196,122	21,410	24	442	217,998
Total Rural Electric Cooperative	1,043,694	116,731	1,570	3,831	1,165,826
Respondent Total ^^ ^^^	9,515,247	1,163,721	25,300	156,780	
FRCC State Total	9,009,348	1,102,695	22,732	N/A	

^{*} Street and highway lighting, sales to public authorities, and interdepartmental sales.

Source: Florida Reliability Coordinating Council, Regional Load and Resource Plan, State Supplement (July 2019), FRCC Form 4.0, p. S-2; Responses to staff data request.

^{**} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

[^] Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

 $^{^{\}wedge\wedge}$ May not total due to rounding.

^{^^^} Respondent total includes sales to other public authorities; therefore, respondent totals are not comparable to FRCC totals.

Table 34

Investor-Owned Utilities: Customer Count and Population 2018-2028 Projected

Utility	Year	Residential	Commercial	Industrial	Other	Total Customers	Population
Duke Energy Florida, LLC	2018	1,691,570	180,351	2,074	27,136	1,901,131	3,954,499
	2021	1,673,995	183,346	2,013	27,037	1,886,391	4,129,577
	2027	1,826,913	196,028	1,955	27,947	2,052,843	4,441,443
Florida Power & Light Company	2018	4,391,832	553,562	11,601	4,318	4,961,313	10,044,057
	2021	4,574,840	575,064	13,886	4,989	5,168,779	10,424,402
	2027	4,889,066	601,952	14,999	6,133	5,512,150	11,175,428
Gulf Power Company	2018	405,462	56,678	251	592	462,983	972,720
	2021	426,034	59,040	255	611	485,940	999,380
	2027	447,994	61,736	255	619	510,604	1,041,390
Tampa Electric Company	2018	670,517	74,895	1,588	9,254	756,254	1,408,864
	2021	707,997	75,861	1,614	9,387	794,859	1,497,480
	2027	779,733	77,612	1,661	9,996	869,002	1,651,067

Source: Florida Public Service Commission, Utilities' Ten-Year Site Plan (April 2019), Schedule Nos. 2.1, 2.2, and 2.3; Table 33.

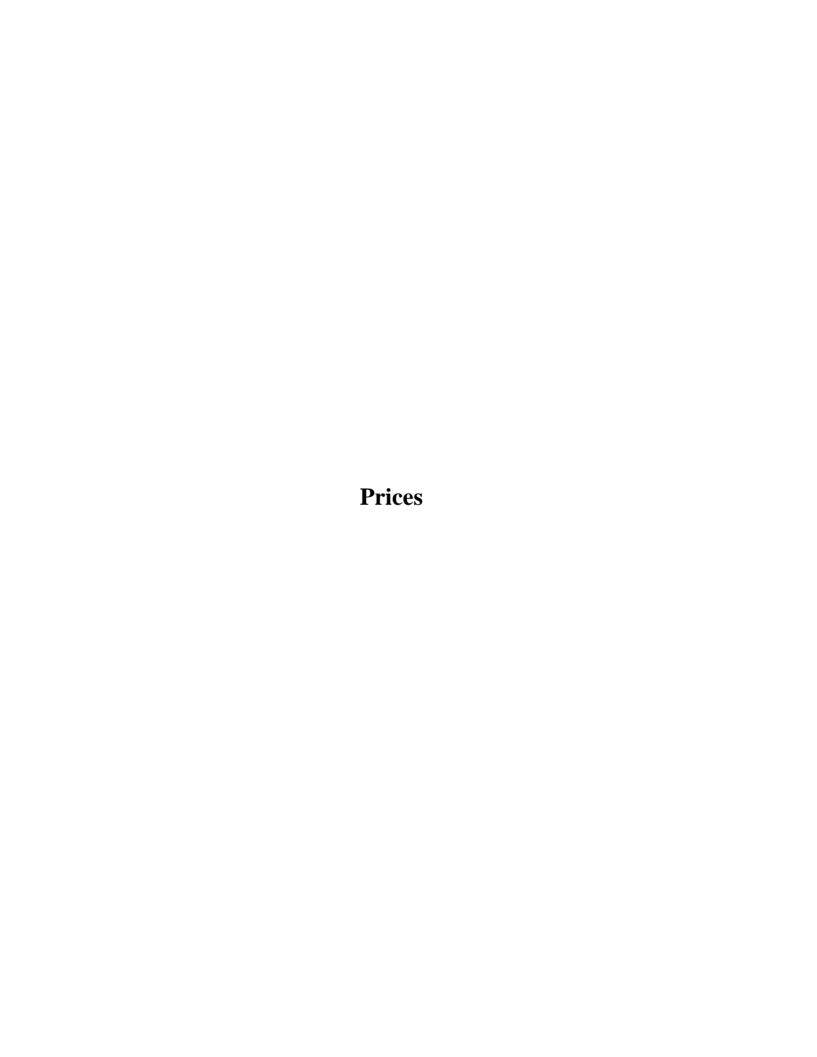


Table 35, Page 1 of 3

Typical Electric Bill Comparison - Residential Charges * December 31, 2018

Investor-Owned	Minimum Bill or Customer Charge	100 kWh	250 kWh	500 kWh	750 kWh	1,000 kWh	1,500 kWh
Duke Energy Florida, LLC	\$8.82	\$20.41	\$37.79	\$66.78	\$95.74	\$124.70	\$195.28
Florida Power & Light Company	7.98	16.78	30.03	52.07	74.12	96.14	150.31
Florida Public Utilities Company							
Northwest Division	15.12	26.66	43.97	72.82	101.67	130.51	200.71
Northeast Division	15.12	26.66	43.97	72.82	101.67	130.51	200.71
Gulf Power Company	19.20	30.09	46.40	73.62	100.80	128.00	182.42
Tampa Electric Company	16.62	25.48	38.77	60.90	83.04	105.16	159.44

* Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

Table 35, Page 2 of 3

Typical Electric Bill Comparison - Residential Charges * December 31, 2018

	Minimum Bill or	100	250	500	750	1,000	1,500
Municipal	Customer Charge	kWh	kWh	kWh	kWh	kWh	kWh
Alachua	\$9.14	\$19.56	\$35.18	\$61.22	\$87.25	\$113.29	\$170.47
Bartow	8.70	19.22	35.00	61.29	87.58	113.87	166.46
Beaches Energy Services	4.50	15.44	31.86	59.22	86.58	113.94	168.66
Blountstown	3.50	15.39	33.21	62.93	92.64	122.35	181.78
Bushnell	7.40	17.47	32.56	57.73	82.89	108.05	158.38
Chattahoochee	6.50	16.99	32.73	58.97	85.20	111.43	163.90
Clewiston	6.50	16.24	30.85	55.18	79.53	103.86	152.54
Fort Meade	12.96	23.92	40.36	92.79	95.16	122.56	177.36
Fort Pierce Utilities Authority	6.01	16.33	31.82	57.62	83.43	111.84	168.66
Gainesville Regional Utilities	14.25	24.07	38.79	65.77	92.74	122.87	187.32
Green Cove Springs	12.00	21.90	36.75	61.50	88.25	115.00	170.50
Havana	00.9	16.54	32.35	58.69	85.03	111.37	164.06
Homestead	5.60	16.46	32.76	59.92	70.78	114.23	168.55
JEA	5.50	15.80	31.26	57.00	82.76	108.50	160.00
Keys Energy Services	18.00	29.10	45.75	73.50	101.25	129.00	184.50
Kissimmee Utility Authority	10.17	19.42	33.30	56.42	79.55	102.67	155.25
Lake Worth Utilities	10.53	20.28	34.90	59.26	83.63	107.99	156.72
Lakeland Electric	11.00	20.19	33.97	56.93	68.67	102.85	151.80
Leesburg	12.20	22.77	38.63	65.07	91.50	117.94	181.71
Moore Haven	8.50	18.21	32.78	57.05	81.33	105.60	154.15
Mount Dora	9.94	20.32	35.88	61.81	87.74	113.67	165.54
New Smyrna Beach	5.65	15.57	30.43	55.22	80.00	104.78	154.35
Newberry	8.50	19.23	35.31	62.13	88.94	115.75	169.38
Ocala Electric Utility	13.00	23.62	39.55	66.10	92.65	119.20	172.30
Orlando Utilities Commission *	10.00	19.60	34.00	58.01	82.00	106.00	169.01
Quincy	00.9	17.01	33.53	61.06	88.59	116.11	171.17
Reedy Creek Improvement District	2.85	13.02	28.27	53.69	79.11	104.52	155.36
St. Cloud **	10.40	20.38	35.36	60.33	85.28	110.24	175.77
Starke	6.45	17.41	33.84	61.23	88.62	116.00	181.78
Tallahassee	TT.T	17.90	33.10	58.43	83.74	109.07	159.73
Vero Beach	0.00	0.00	0.00	0.00	00.00	0.00	0.00
Wauchula	11.50	20.44	33.85	56.20	78.55	100.90	145.60
Williston	8.00	18.29	33.74	59.47	85.21	110.94	162.41
Winter Park	15.44	24.85	38.98	62.52	86.05	109.59	172.75

^{*} Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

^{**} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

Table 35, Page 3 of 3

Typical Electric Bill Comparison - Residential Charges * December 31, 2018

	Minimum Bill or	100	250	500	750	1,000	1,500
Rural Electric Cooperative	Customer Charge	KWh	KWh	kwh	KWh	kwh	kwn
Central Florida Electric	\$28.50	\$37.75	\$51.62	\$74.75	\$97.87	\$121.00	\$178.75
Choctawhatchee Electric	26.00	35.77	50.43	74.85	99.27	123.69	172.54
Clay Electric	23.00	31.99	45.48	67.95	90.43	112.90	167.25
Escambia River Electric	30.00	42.10	60.25	90.50	120.75	151.00	211.50
Florida Keys Electric	30.00	38.31	50.76	71.53	92.29	113.05	171.08
Glades Electric	45.00	54.00	67.50	90.00	112.50	135.00	198.75
Gulf Coast Electric	30.00	39.71	54.28	78.55	102.83	127.10	175.65
Lee County Electric	15.00	23.75	36.88	56.15	79.33	102.50	154.20
Okefenoke Rural Electric **	25.00	34.77	49.43	73.85	98.28	122.70	174.90
Peace River Electric	26.50	36.41	51.27	76.03	100.79	125.56	185.09
Sumter Electric	24.90	33.89	47.38	69.85	92.32	114.80	169.75
Suwannee Valley Electric	25.00	34.46	48.65	72.30	95.95	119.60	177.60
Talquin Electric	30.00	39.80	54.50	79.00	103.50	128.00	187.80
Tri-County Electric	28.00	38.30	53.75	79.50	105.25	131.00	192.50
West Florida Electric	24.95	35.37	51.00	77.05	103.09	129.14	191.01
Withlacoochee River Electric	32.37	41.12	54.25	76.14	98.02	119.90	164.80

^{*} Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

^{**} Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

Table 36, Page 1 of 3

Typical Electric Bill Comparison - Commercial and Industrial Charges * December 31, 2018

Investor-Owned	75 kW 15,000 kWh	150 kW 45,000 kWh	500 kW 150,000 kWh	1,000 kW 400,000 kWh	2,000 kW 800,000 kWh
Duke Energy Florida, LLC	\$1,513	\$4,040	\$13,441	\$33,706	\$67,401
Florida Power & Light Company	1,576	3,870	13,346	31,106	61,260
Florida Public Utilities Company					
Northwest Division	1,816	5,002	16,646	42,248	84,356
Northeast Division	1,816	5,002	16,646	42,248	84,356
Gulf Power Company	1,662	4,353	14,630	34,406	68,550
Tampa Electric Company	1,639	4,029	13,354	31,902	63,771

* Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

Table 36, Page 2 of 3

Typical Electric Bill Comparison - Commercial and Industrial Charges * December 31, 2018

	75 kW	150 kW	500 kW	1,000 kW	2,000 kW
Municipal	15,000 kWh	45,000 kWh	150,000 kWh	400,000 kWh	$800,000 \mathrm{kWh}$
Alachua	\$1,810	\$4,788	\$15,853	\$39,746	\$79,446
Bartow	1,864	4,864	16,164	40,019	80,017
Beaches Energy Services	2,080	5,570	18,530	46,552	93,088
Blountstown	1,875	5,610	18,682	49,807	209,66
Bushnell	1,835	4,900	16,280	40,893	81,763
Chattahoochee	1,997	5,189	17,240	44,257	88,489
Clewiston	1,697	4,738	15,696	40,586	81,130
Fort Meade	1,871	5,352	17,742	44,102	88,162
Fort Pierce Utilities Authority	1,784	4,766	17,784	42,981	85,923
Gainesville Regional Utilities	2,263	5,877	19,355	47,180	94,010
Green Cove Springs	1,903	4,970	16,450	38,125	76,025
Havana	1,587	4,748	15,812	42,154	84,302
Homestead	1,919	5,209	17,280	43,898	87,760
JEA	1,715	4,345	14,286	35,567	70,799
Keys Energy Services	2,182	5,567	18,335	45,235	90,375
Kissimmee Utility Authority	1,785	4,577	15,128	37,286	74,516
Lake Worth Utilities	2,325	6,076	20,068	860,05	100,116
Lakeland Electric	1,574	4,053	13,501	32,257	64,134
Leesburg	1,973	4,855	16,540	38,853	80,653
Moore Haven	1,771	4,568	15,149	37,324	74,614
Mount Dora	1,409	3,774	12,527	31,552	63,082
New Smyrna Beach	1,855	4,992	15,686	39,606	79,178
Newberry	1,904	4,933	16,408	37,545	75,045
Ocala Electric Utility	1,718	4,540	15,401	38,278	76,532
Orlando Utilities Commission *	1,627	4,129	13,673	32,902	65,654
Quincy	1,689	4,647	15,350	39,500	65,363
Reedy Creek Improvement District	1,570	4,144	13,768	34,349	8,678
St. Cloud **	1,692	4,294	14,221	34,220	68,284
Starke	1,990	5,951	19,817	52,829	105,649
Tallahassee	1,868	4,448	14,567	34,237	68,401
Vero Beach	0	0	0	0	0
Wauchula	1,525	4,036	13,300	33,535	67,005
Williston	1,706	4,693	15,365	38,890	77,730
Winter Park	1,507	4,109	13,657	34,707	69,397
	1 1 1 1 1				

^{*} Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

^{**} The City of St. Cloud is included in the figures of Orlando Utilities Commission.

Table 36, Page 3 of 3

Typical Electric Bill Comparison - Commercial and Industrial Charges * December 31, 2018

Rural Electric Cooperative	75 kW 15,000 kWh	150 kW 45,000 kWh	500 kW 150,000 kWh	1,000 kW 400,000 kWh	2,000 kW 800,000 kWh
Central Florida Electric	\$1,873	\$4,824	\$15,849	\$38,849	\$77,599
Choctawhatchee Electric	1,553	4,116	12,981	32,906	65,769
Clay Electric	1,567	4,216	13,865	35,390	67,285
Escambia River Electric	2,218	5,915	19,600	49,350	98,650
Florida Keys Electric	1,668	4,854	16,009	42,551	85,028
Glades Electric	2,123	5,468	17,875	44,750	89,350
Gulf Coast Electric	1,981	4,869	16,135	39,743	79,443
Lee County Electric	1,533	4,019	945	2,520	5,040
Okefenoke Rural Electric **	1,742	4,429	14,435	35,960	71,780
Peace River Electric	1,801	4,534	14,313	34,698	69,246
Sumter Electric	1,519	3,997	13,170	33,095	66,125
Suwannee Valley Electric	1,712	4,574	15,250	37,450	74,650
Talquin Electric	1,724	4,788	16,145	37,192	74,084
Tri-County Electric	1,995	5,010	16,350	40,350	80,550
West Florida Electric	1,814	4,967	16,440	43,708	87,316
Withlacoochee River Electric	1,484	3,929	13,008	32,625	65,213

^{*} Excludes local taxes, franchise fees, and gross receipts taxes that are billed as separate line items. Includes cost recovery clause charges.

^{**} Okefenoke sells power in Florida and Georgia; figures reflect Florida customers only.

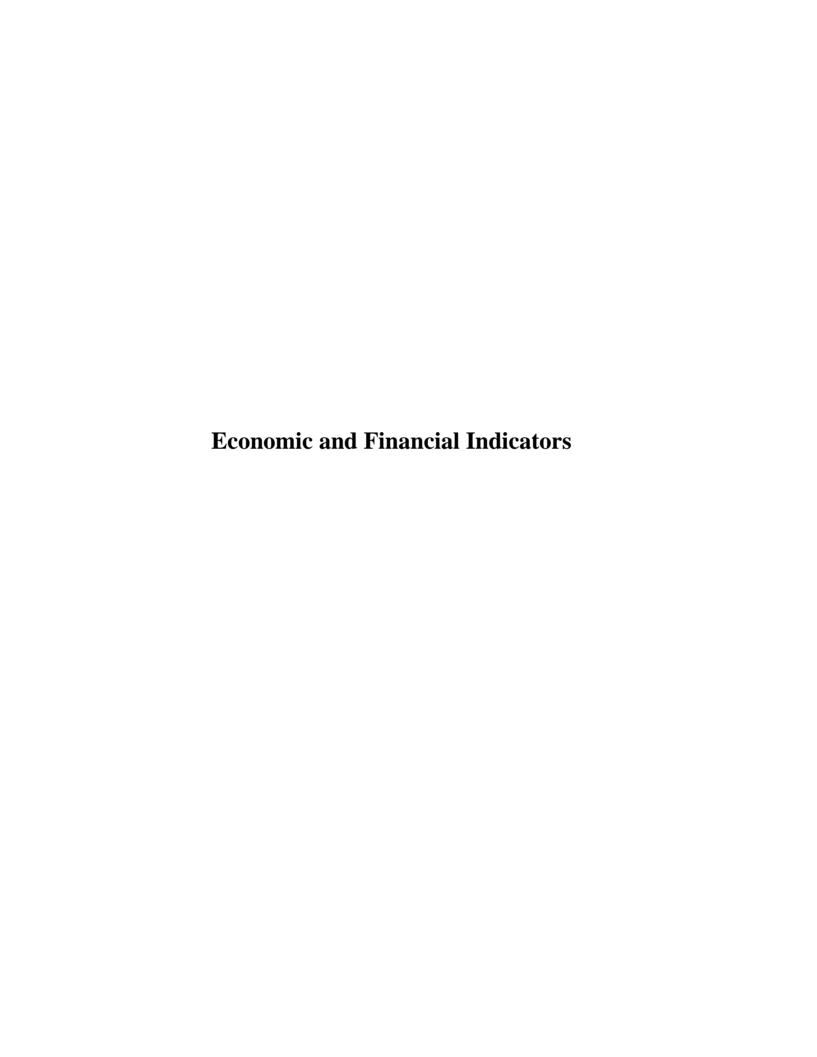


Table 37 **Population**(**Thousands**)
2009-2018

	Florida	National
Year	Population	Population
2009	18,538	307,007
2010	18,839	309,330
2011	19,058	311,592
2012	19,074	314,917
2013	19,553	316,129
2014	19,893	318,857
2015	20,271	321,419
2016	20,612	323,128
2017	20,984	325,719
2018	21,299	327,167
Compound Annual Growth Rate,		
2009-2018	1.55%	0.71%
Compound Annual Growth Rate,		
2014-2018	1.72%	0.65%

Source: U.S. Census Bureau, State & County Quick Facts (July 2019), 2018 Population estimate. Retrieved from http://quickfacts.census.gov/qfd/states/12000.html

Table 38
Projected Population
(Thousands)
2020-2040

	Florida	National
Year	Population	Population
2020	21,518	332,639
2030	24,340	355,101
2040	26,374	373,528
Compound Annual Growth Rate,		
2020-2040	1.08%	0.61%

Sources: The Office of Economic & Demographic Research (May 2019), Data: 2018 Population by County: Projections of Florida Population by County (EDR - 2020-2040). Retrieved from http://edr.state.fl.us/Content/population-demographics/data/index.cfm

U.S. Census Bureau, Population Projections (March 2019), 2018 National Population Projections Tables: Summary Tables, Projections of population size: Table 1. Projected population size and births, deaths, and migration (CSV - 2015 to 2060). Retrieved from

 $\underline{https://www.census.gov/population/projections/data/national/2014/summarytables.html}$

Table 39

Consumer Price Index
All Urban Consumers

All Urban Consumers Annual Rate of Change 2009-2018

Year	All Urban Consumers
2009	-0.4%
2010	1.6
2011	3.2
2012	2.1
2013	1.5
2014	1.6
2015	1
2016	1.3
2017	2.1
2018	2.4

Source: U.S. Government Publishing Office, Economic Indicators (January 2019), Prices:

Changes in Consumer Prices - All Urban Consumers. Retrieved from

http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=ECONI

Table 40

Consumer Price Index For All Items and Energy Total 2009-2018

Year	All Items	Energy Total *
2009	214.5	211.0
2010	218.1	214.2
2011	224.9	220.4
2012	229.6	219.0
2013	233.0	224.0
2014	236.7	243.5
2015	237.0	202.9
2016	240.0	189.5
2017	245.1	204.5
2018	251.1	219.9

 $[\]ensuremath{^*}$ Includes household energy (electricity, gas, fuel, oil, etc.).

Source: U.S. Government Publishing Office, Economic Indicators (January 2019), Prices:

Consumer Prices - All Urban Consumers. Retrieved from

 $\underline{http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=ECONI}$

Table 41
Producer Price Index
Total Finished Goods and Capital Equipment 2009-2018

Year	Finished Goods	Capital Equipment
2009	172.5	156.7
2010	179.8	157.3
2011	190.5	159.7
2012	194.2	162.8
2013	196.1	165.3
2014	191.9	167.7
2015	189.8	169.3
2016	195.6	170.6
2017	201.3	172.0
2018	201.7	176.7

Source: U.S. Department of Labor, Bureau of Labor and Statistics (January 2019),

Producer Price Index. Retrieved from

 $\underline{http://www.bls.gov/schedule/archives/ppi_nr.htm\#current}$

Glossary

Average Annual kWh Use per Customer – Annual kilowatt-hour sales of a class of service (see **Classes of Electric Service** for list) divided by the average number of customers for the same 12-month period (usually refers to all residential customers, including those with electric space heating). A customer with two or more meters at the same location because of special services, such as water heating, etc., is counted as one customer.

Average rate of return - This method of appraisal measures the net return from an investment as a percentage of its original cost.

Average Adjusted Rate of Return –This method of appraisal measures the net return from an investment as a percentage of its original cost to include Florida Public Service Commission (FPSC) approved adjustments

FPSC Authorized Rate of Return - This method of appraisal measures the midpoint rate of return based on the FPSC approved return on equity and utility financial statements

BTU (**British Thermal Unit**) – The standard unit for measuring quantity of heat energy, such as the heat content of fuel. It is the amount of heat energy necessary to raise the temperature of one pound of water one degree Fahrenheit.

Content of Fuel, Average – The heat value per unit quantity of fuel expressed in BTU as determined from tests of fuel samples. Examples: BTU per pound of coal, per gallon of oil, etc.

BTU per Kilowatt-Hour – See Heat Rate.

Capability – The maximum load which a generating unit, generating station, or other electrical apparatus can carry under specified conditions for a given period of time, without exceeding approved limits of temperature and stress.

Customer-Owned Solar Photovoltaic Generation – Customers who install renewable energy generation systems (RGS) on their homes or businesses, such as solar photovoltaic (PV) systems, can interconnect with the distribution system and receive a billing credit for the solar energy they do not use.

Gross System – The net generating station capability of a system at a stated period of time (usually at the time of the system's maximum load), plus capability available at such time from other sources through firm power contracts.

Note: The Florida Electric Power Coordinating Group and much of the utility industry prefer a different definition. Their use of the word relates to the capability at the generator terminals and would therefore be defined as the "total capability of a system's generating units measured at their terminals."

Margin of Reserve - See Capability Margin.

Net Generating Station – The capability of a generating station as demonstrated by test or as determined by actual operating experience less power generated and used for auxiliaries and other station uses. Capability may vary with the character of the load, time of year (due to circulating water temperatures in thermal stations or availability of water in hydro stations), and other characteristic causes. Capability is sometimes referred to as Effective Rating.

Net System – The net generating station capability of a system at a stated period of time (usually at the time of the system's maximum load), plus capability available at such time from other sources through firm power contracts, less firm power obligations at such time to other companies or systems.

Peaking – Generating capability normally designed for use during the maximum load period of a designated time interval.

Capability Margin/Reserve Margin – The difference between net system capability and system maximum load requirements, operating requirements, and unforeseen loads.

Capacity – The load for which a generating unit, generating station, or other electrical apparatus is rated either by the use or by the manufacturer. See also Nameplate Rating.

Dependable – The load-carrying ability for the time interval and period specified when related to the characteristics of the load to be supplied. Dependable capacity of a station is determined by such factors as capability, operating power factor, and portion of the load which the station is to supply.

Hydraulic – The rating of a hydroelectric generating unit of the sum of such ratings for all units in a station or stations.

Installed Generating – See Nameplate Rating.

Peaking – Generating units or stations which are available to assist in meeting that portion of peak load which is above base load

Purchase – The amount of power available for purchase from a source outside the system to supply energy or capacity.

Renewable Generation Capacity – is generally defined as energy that is collected from resources which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat.

Reserve:

Cold – Thermal generating units available for service but not maintained at operating temperature.

Hot – Thermal generating units available, up to temperature, and ready for service, although not actually in operation.

Margin of - See Capability Margin.

Spinning – Generating units connected to the bus and ready to take load.

Thermal – The rating of a thermal electric generating unit or the sum of such ratings for all units in a station or stations.

Total Available - See Capability, Gross System.

Charge, Electric Energy – See Energy, Electric.

Classes of Electric Service – See class name for each definition.

Sales to Ultimate Customers: *

Residential Public Street and Highway Lighting

Commercial and Industrial

Commercial

Railroads and Railways

Industrial

Interdepartmental

Small Light and Power Large Light and Power

Sales for Resale (Other Electric Utilities):

Investor-Owned Municipally-Owned

Cooperatively-Owned Federal and State Electric Agencies

^{*} Companies serve rural customers under distinct rural rates and classify these sales as "Rural." However, many companies serve customers in rural areas under standard Residential, Commercial, and Industrial rates and classify such sales similarly. Consequently, "Rural" is a rate classification rather than a customer classification, and since "Rural" is frequently confused with "Farm Service" (a type of Residential and/or Commercial service), the "Rural" classification has been generally discontinued as a customer classification.

Classes of Electric Systems – Federal Power Commission groupings (as of 1968) of operating systems based on volume and kinds of electric output for the purpose of reporting power system operations.

Basis of Classification Systems which generate all or part of system requirements and whose net energy for system for the year reported was:	Class of System
More than 100,000,000 kilowatt-hours.	I
20,000,000 to 100,000,000 kilowatt-hours.	п
Less than 20,000,000 kilowatt-hours.	Ш
Systems engaged primarily in sales for resale and/or sales to industrial, all other sales being negligible.	IV
Systems which obtain entire energy requirements from other systems.	V

Combined Cycle – Consists of three components: two combustion turbines, each with its own generator, and one steam boiler with associated steam turbine generator. The normally wasted combustion may also be supplementally fired.

Conventional Fuels - The fossil fuels: coal, oil, or gas.

Cooperative, Rural Electric - See Rural.

Cooperatives (Cooperatively-Owned Electric Utilities) – A joint venture organized for the purpose of supplying electric energy to a specified area. Such ventures are generally exempt from the federal income tax laws. Most cooperatives have been financed by the Rural Electrification Administration.

Customer (**Electric**) – A customer is an individual, firm, organization, or other electric utility which purchases electric service at one location under one rate classification, contract, or schedule. If service is supplied to a customer at more than one location, each location shall be counted as a separate customer unless consumption is combined before the bill is calculated.

Note 1: If service is supplied to a customer at one location through more than one meter and under several rate classifications or schedules but only for one class of service (for example, separate meters for residential regular and water heating service), such multiple rate services shall be counted as only one customer at the one location.

Note 2: Where service is used for one part of a month (prorated period), only initial bills of customers during such month only shall be counted; final bills should not be counted as customers.

Note 3: See also Ultimate Customers.

Demand – The rate at which electric energy is delivered to or by a system, part of a system, or a piece of equipment expressed in kilowatts, kilovolt-amperes, or other suitable unit at a given instant or averaged over any designated period of time. The primary source of "Demand" is the power-consuming equipment of the customers. See **Load**.

Annual Maximum – The greatest of all demands of the load under consideration which occurred during a prescribed demand interval in a calendar year.

Annual System Maximum - The greatest demand on an electric system during a prescribed demand interval in a calendar year.

Demand Continued

Average – The demand on, or the power output of, an electric system or any of its parts over any interval of time, as determined by dividing the total number of kilowatt-hours by the number of units of time in the interval.

Billing – The demand upon which billing to a customer is based, as specified in a rate schedule or contract. Billing may be based on the contract year, a contract minimum, or a previous maximum and, therefore, does not necessarily coincide with the actual measured demand of the billing period.

Coincident – The sum of two or more demands which occur in the same demand interval.

Instantaneous Peak – The maximum demand at the instant of greatest load, usually determined from the readings of indicating or graphic meters.

Integrated – The demand usually determined by an integrating demand meter or by the integration of a load curve. An integrated demand is the summation of the continuously varying instantaneous demands during a specified demand interval.

Maximum – The greatest of all demands of the load under consideration which has occurred during a specified period of time.

Noncoincident – The sum of two or more individual demands which do not occur in the same demand interval. This term is meaningful only when considering demands within a limited period of time, such as a day, week, month, a heating or cooling season, and usually not for more than one year.

Electric Utility Industry or Electric Utilities – All enterprises engaged in the production and/or distribution of electricity for use by the public, including investor-owned electric utility companies; cooperatively-owned electric utilities; government-owned electric utilities (municipal systems, federal agencies, state projects, and public power districts); and, where the data are not separable, those industrial plants contributing to the public supply.

Energy, Electric – As commonly used in the electric utility industry, electric energy means kilowatt-hours.

Fuel Costs (Most Commonly Used by Electric Utility Companies)

Cents per Million BTU Consumed – Since coal is purchased on the basis of its heat content, its cost is measured by computing the "cents per million BTU" of the fuel consumed. This figure is the total cost of fuel consumed divided by its total BTU content, and the answer is then divided by one million.

Coal – Average cost per (short) ton (dollars per ton) – includes bituminous and anthracite coal and relatively small amounts of coke, lignite, and wood.

Gas – Average cost per MCF (cents per thousand cubic feet) – includes natural, manufactured, mixed, and waste gas. Frequently expressed as cost per therm (100,000 BTU).

Nuclear – Nuclear fuel costs can be given on a fuel cycle basis. A fuel cycle consists of all the steps associated with procurement, use, and disposal of nuclear fuel. According for the cost of each step in the fuel cycle including interest charges, nuclear fuel costs can be given in cents per million BTU or mills per kilowatt-hour for the cycle lifetime of the fuel which is normally five to six years.

Oil – Average cost per barrel – 42 U.S. gallons (dollars per barrel) – includes fuel oil, crude and diesel oil, and small amounts of tar and gasoline.

Fuel Efficiency - See Heat Rate.

Fuel for Electric Generation – Includes all types of fuel (solid, liquid, gaseous, and nuclear) used exclusively for the production of electric energy.

Gas – A fuel burned under boilers by internal combustion engines and gas turbines for electric generation. Includes natural, manufactured, mixed, and waste gas. See **Gas** – **MCF** and also **Therm**.

Gas - Fuel Costs - See Fuel Costs.

Gas - MCF - 1,000 cubic feet of gas.

Generating Capability - See Capability, Net Generating Station.

Generating Station (Generating Plant or Power Plant) – A station with prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or nuclear energy into electric energy.

Atomic - See Nuclear.

Gas Turbine – An electric generating station in which the prime mover is a gas turbine engine.

Generating Station Capability - See Capability, Net Generating Station.

Generating Unit – An electric generator together with its prime mover.

Generation, Electric – This term refers to the act or process of transforming other forms of energy into electric energy, or to the amount of electric energy so produced, expressed in kilowatt-hours.

Gross – The total amount of electric energy produced by the generating units in a generating station or stations.

Net – Gross generation less kilowatt-hours consumed out of gross generation for station use.

Geothermal – An electric generating station in which the prime mover is a steam turbine. The steam is generated in the earth by heat from the earth's magma.

Hydroelectric – An electric generation station in which the prime mover is a hydraulic turbine.

Internal Combustion – An electric generating station in which the prime mover is an internal combustion engine.

Nuclear – An electric generating station in which the prime mover is a steam turbine. The steam is generated in a reactor by heat from the fissioning of nuclear fuel.

Steam (Conventional) – An electric generating station in which the prime mover is a steam turbine. The steam is generated in a boiler by heat from burning fossil fuels.

Gigawatt-Hour (GWh) - One million kilowatt-hours, one thousand megawatt-hours, or one billion watt-hours.

Heat Rate – A measure of generating station thermal efficiency, generally expressed in BTU per net kilowatt-hour. The heat rate is computed by dividing the total BTU content of fuel burned for electric generation by the resulting net kilowatt-hour generation.

Industrial – See Commercial and Industrial.

Interdepartmental Sales – Kilowatt-hour sales of electric energy to other departments (gas, steam, water, etc.) and the dollar value of such sales at tariff or other specified rates for the energy supplied.

Internal Combustion Engine – A prime mover in which energy released from rapid burning of a fuel-air mixture is converted into mechanical energy. Diesel, gasoline, and gas engines are the principal types in this category.

Investor-Owned Electric Utilities – Those electric utilities organized as tax-paying businesses usually financed by the sale of securities in the free market, and whose properties are managed by representatives regularly elected by their shareholders. Investor-owned electric utilities, which may by owned by an individual proprietor or a small group of people, are usually corporations owned by the general public.

Kilowatt (kW) – 1,000 watts. See Watt.

Kilowatt-Hour (kWh) – The basic unit of electric energy equal to one kilowatt of power supplied to or taken from an electric circuit steadily for one hour.

Kilowatt-Hours per Capita – Net generation in the United States divided by the national population, or the corresponding ratio for any other area.

Large Light and Power - See Classes of Electric Services, Sales to Ultimate Customers.

Load – The amount of electric power delivered or required at any specified point or points on a system. Load originates primarily at the power-consuming equipment of the customers. See **Demand**.

Average - See Demand, Average.

Base – The minimum load over a given period of time.

Connected – Connected load is the sum of the capacities or rating of the electric power-consuming apparatus connected to a supplying system, or any part of the system under consideration.

Peak – See Demand, Maximum and also Demand, Instantaneous Peak.

Load Factor – The ratio of the average load in kilowatts supplied during a designated period to the peak or maximum load in kilowatts occurring in that period. Load factor, in percent, also may be derived by multiplying the kilowatt-hours in the period by 100 and dividing by the product of the maximum demand in kilowatts and the number of hours in the period.

Loss (Losses) – The general term applied to energy (kilowatt-hours) and power (kilowatts) lost in the operation of an electric system. Losses occur principally as energy transformations from kilowatt-hours to waste heat in electric conductors and apparatus.

Average – The total difference in energy input and output or power input and output (due to losses) averaged over a time interval and expressed either in physical quantities or as a percentage of total input.

Energy – The kilowatt-hours lost in the operation of an electric system.

Line – Kilowatt-hours and kilowatts lost in transmission and distribution lines under specified conditions.

Loss (Losses) Continued

Peak Percent – The difference between the power input and output, as a result of losses due to the transfer of power between two or more points on a system at the time of maximum load, divided by the power input.

System – The difference between the system net energy or power input and output, resulting from characteristic losses and unaccounted for between the sources of supply and the metering points of delivery on a system.

Margin of Reserve Capacity - See Capability Margin.

Maximum Demand - See Demand, Maximum.

Maximum Load - See Demand, Maximum.

Megawatt (MW) - 1,000 kilowatts. See Watt.

Megawatt-Hour (MWh) – 1,000 kilowatt-hours. See Kilowatt-Hours.

Municipally-Owned Electric System – An electric utility system owned and/or operated by a municipality engaged in serving residential, commercial, and/or industrial customers, usually, but not always, within the boundaries of the municipality.

Nameplate Rating – The full-load continuous rating of a generator, prime mover, or other electrical equipment under specified conditions as designated by the manufacturer. The nameplate rating is usually indicated on a nameplate attached to the individual machine or device. The nameplate rating of a steam electric turbine-generator wet is the guaranteed continuous output in kilowatts or KVA (kilovolt-amperes = 1,000 volt-amperes) and power factor at generator terminals when the turbine is clean and operating under specified throttle steam pressure and temperature, specified reheat temperature, specified exhaust pressure, and with full extraction from all extraction openings.

Net Capability - See Capability, Net Generating Station.

Net Energy for Load - A term used in Federal Energy Regulatory Commission reports and comprising:

- 1. The net generation by the system's own plants, plus
- 2. Energy received from others (exclusive of receipts for borderline customers), less
- 3. Energy delivered for resale to those Class I and II systems which obtain a part of their power supply from sources other than the company's system.

Net Energy for System – A term used in Federal Energy Regulatory Commission reports and comprising:

- 1. The net generation by the system's own plants, plus
- 2. Energy received from others (exclusive of receipts for borderline customers), less
- 3. Energy delivered for resale to those Class I and II systems which obtain a part of their power supply from sources other than the company's system, plus
- 4. Energy received for borderline customers, less
- 5. Energy delivered for resale to all systems other than those specified in Item 3 preceding.

Net Generating Station Capability - See Capability, Net Generating Station.

Net Generation – See Generation, Electric – Net.

Net Plant Capability - See Capability, Net Generating Station.

Nuclear Energy – Energy produced in the form of heat during the fission process in a nuclear reactor. When released in sufficient and controlled quantity, this heat energy may be used to produce steam to drive a turbine-generator and thus be converted to electrical energy.

Nuclear (Atomic) Fuel – Material containing fissionable materials of such composition and enrichment that when placed in a nuclear reactor will support a self-sustaining fission chain reaction and produce heat in a controlled manner for process use.

Prime Mover – The engine, turbine, water wheel, or similar machine which drives an electric generator.

Public Street and Highway Lighting – A customer, sales, and revenue classification covering electric energy supplied and services rendered for lighting streets, highways, parks, and other public places, or for traffic or other signal service, for municipalities or other divisions or agencies of federal or state governments.

Publicly Owned Electric Utilities (Government-Owned Electric Utilities and Agencies) – When used in statistical tables to indicate class of ownership, this term includes municipally-owned electric systems and federal and state public power projects. Cooperatives are not included in this grouping.

Renewable Generation Capacity - See Capacity.

Reserve Capacity - See Capacity.

Residential – A customer, sales, or revenue classification covering electric energy supplied for residential (household) purposes. The classification of an individual customer's account where the use is both residential and commercial is based on principal use.

Rural – A rate classification covering electric energy supplied to rural and farm customers under distinct rural rates. See Classes of Electric Service.

Sales for Resale – A customer, sales, and revenue classification covering electric energy supplied (except under interchange agreements) to other electric utilities or to public authorities for resale or distribution. Includes sales for resale to cooperatives, municipalities, and federal and state electric agencies.

Service Area – Territory in which a utility system is required or has the right to supply electric service to ultimate customers.

Solar Photovoltaic (PV) – These devices generate electricity directly from sunlight via an electronic process that occurs naturally in certain types of material, called semiconductors. Electrons in these materials are freed by solar energy and can be induced to travel through an electrical circuit, powering electrical devices or sending electricity to the grid.

Station Use (Generating) – The kilowatt-hours used at an electric generating station for such purposes as excitation and operation of auxiliary and other facilities essential to the operation of the station. Station use includes electric energy supplied from house generators, main generators, the transmission system, and any other sources. The quantity of energy used is the difference between the gross generation plus any supply from outside the station and the net output of the station.

Summer Peak – The greatest load on an electric system during any prescribed demand interval in the summer or cooling season, usually between June 1 and September 30.

System, Electric – The physically connected generation, transmission, distribution, and other facilities operated as an integral unit under one control, management, or operating supervision.

System Load - See Demand.

System Loss – See Loss (Losses).

Therm – 100,000 BTUs. See BTU (British Thermal Unit).

Thermal – A term used to identify a type of electric generating station, capacity or capability, or output in which the source of energy for the prime mover is heat.

Turbine (Steam or Gas) – An enclosed rotary type of prime mover in which heat energy in steam or gas is converted into mechanical energy by the force of a high velocity flow of steam or gases directed against successive rows of radial blades fastened to a central shaft.

Ultimate Customers – Those customers purchasing electricity for their own use and not for resale. See Classes of Electric Service.

Uses and Losses – "Uses" refers to the electricity used by the electric companies for their own purposes and "losses" refers to transmission losses.

Utility Rate Structure – A utility's approved schedule of charges for billing utility service rendered to various classes of its customers.

Volt-Ampere – The basic unit of apparent power. The volt-amperes of an electric circuit are the mathematical product of the volts and amperes of the circuit.

Watt – The electrical unit of power or rate of doing work; also the rate of energy transfer equivalent to one ampere flowing under a pressure of one volt at unity power factor. A watt is analogous to horsepower or foot-pounds per minute of mechanical power. One horsepower is equivalent to approximately 746 watts.

Winter Peak – The greatest load on an electric system during any prescribed demand interval in the winter or heating season, usually between December 1 of a calendar year and March 31 of the next calendar year.

Sources: Edison Electric Institute

Florida Electric Power Coordinating Group, Inc.

Florida Office of Energy