

# EIA Hurricane Michael Electricity Status Report

Tracking the electricity impact of Hurricane Michael on the Southeastern region of the United States

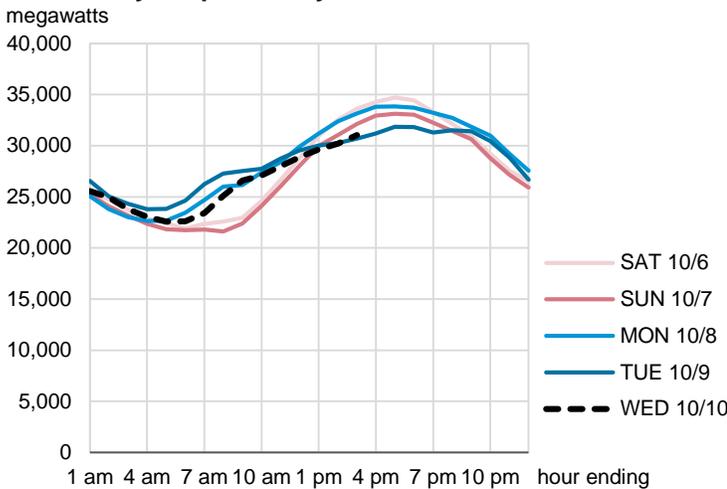


## Wednesday, October 10, 2018

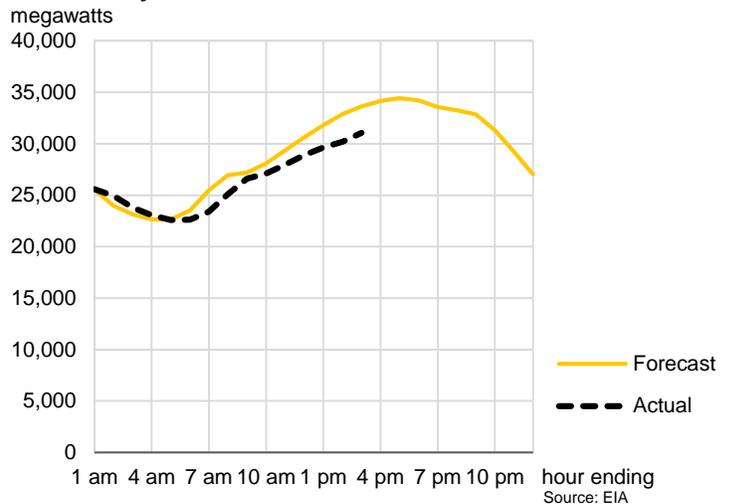
- Weather:** Hurricane Michael made landfall today in the Florida panhandle. The Category 4 storm has sustained winds up to 125 miles per hour and hurricane-force winds extending up to 40 miles from the center. Cumulative rainfall in the impacted parts of Florida, Alabama, and Georgia are expected to total four to eight inches.
- Electricity:** Forecast and actual peak loads for the SOCO and AEC balancing authorities (BAs), which cover most of Georgia, Alabama, and the Florida panhandle, have declined over the past two days as the hurricane approached. The impact of the hurricane is most apparent in the TAL (City of Tallahassee) BA, where reported demand has fallen far short of forecast.
- Generators:** Southern Company announced that it began reducing output at the 1,751-megawatt Farley nuclear plant in southeastern Alabama today. This was described as a precautionary measure made in anticipation of the possible arrival of hurricane-force winds.
- Customer outages, as of 6:00 p.m.:** About 388,000 customers in Florida, 46,000 customers in Georgia, and 45,000 customers in Alabama have reported electricity outages, roughly 3.7%, 0.9%, and 1.7% of the customers in the states, respectively. Outage numbers are expected to rise as the storm moves inland.

## REGIONAL OVERVIEW

### Southeast region electricity load current day vs. past 4 days



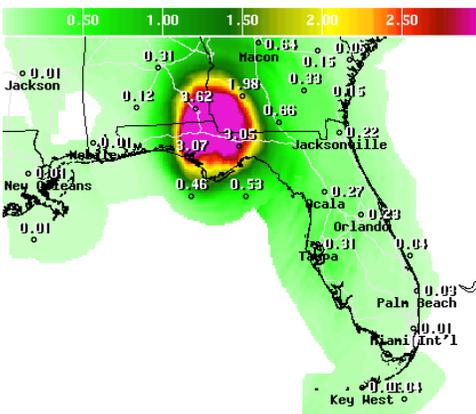
### Southeast region electricity load current day actual vs. forecast



## WEATHER PROJECTIONS

### Precipitation

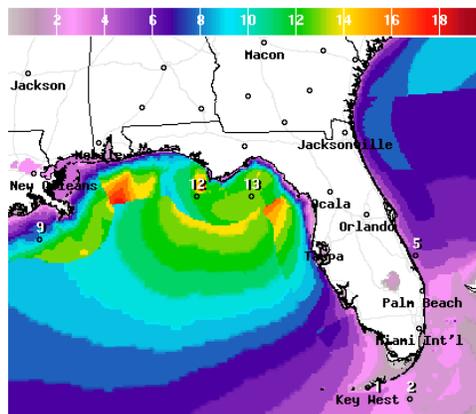
inches  
6 hr period ending Wed Oct 10 at 8 pm EDT



6Hr Precip.Amt(in) Ending Wed Oct 10 2018 8PM EDT  
(Thu Oct 11 2018 00Z)  
National Digital Forecast Database  
18z issuance Graphic created-Oct 10 3:01PM EDT

### Wave Height

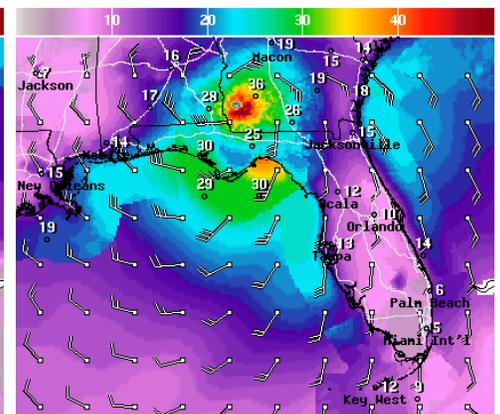
feet  
for Wed Oct 10 at 8 pm EDT



Wave Height(ft) Ending Wed Oct 10 2018 8PM EDT  
(Thu Oct 11 2018 00Z)  
National Digital Forecast Database  
19z issuance Graphic created-Oct 10 3:51PM EDT

### Wind Speed & Direction

knots (1 knot = 1.15 mph)  
for Wed Oct 10 at 8 pm EDT



WindSpd(Kts) & WindDir For Wed Oct 10 2018 8PM EDT  
(Thu Oct 11 2018 00Z)  
National Digital Forecast Database  
18z issuance Graphic created-Oct 10 3:01PM EDT

Source: NOAA

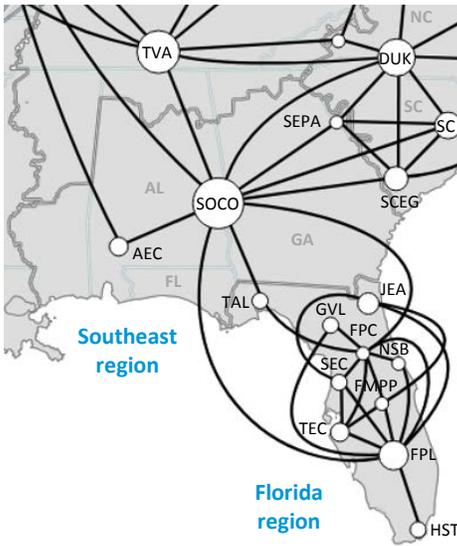
Send questions or comments about this report to [infoelectric@eia.gov](mailto:infoelectric@eia.gov).

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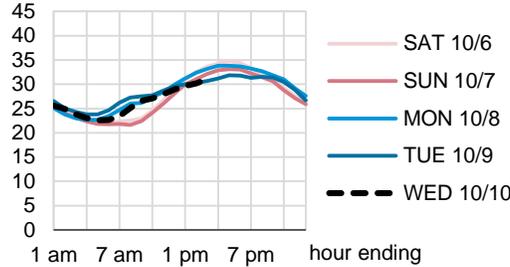
## REGIONAL OVERVIEW



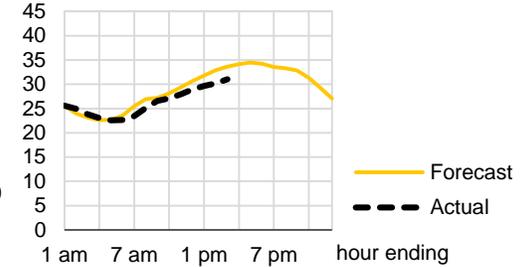
**Balancing Authorities**  
Maps indicate the balancing authorities within each region and the interconnections between balancing authorities

### Southeast region electricity load

**Current day vs. past 4 days**  
thousand megawatts

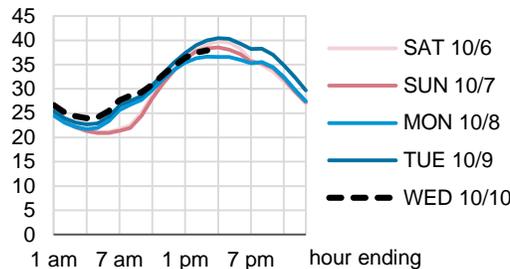


**Current day actual vs. forecast**  
thousand megawatts

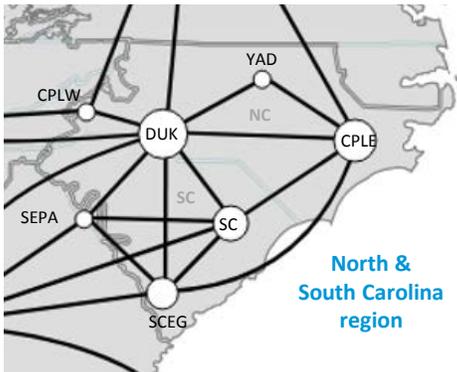
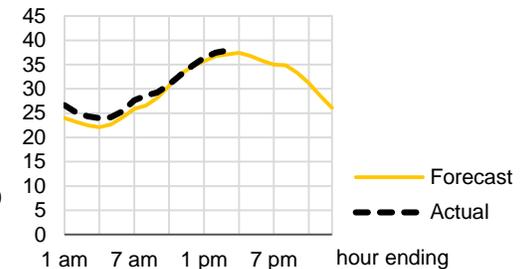


### Florida region electricity load

**Current day vs. past 4 days**  
thousand megawatts

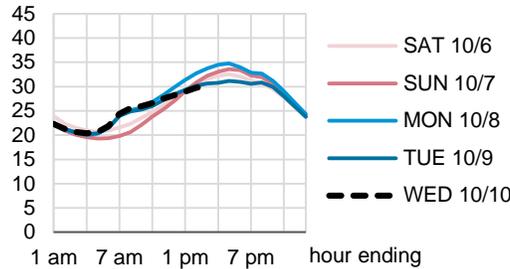


**Current day actual vs. forecast**  
thousand megawatts

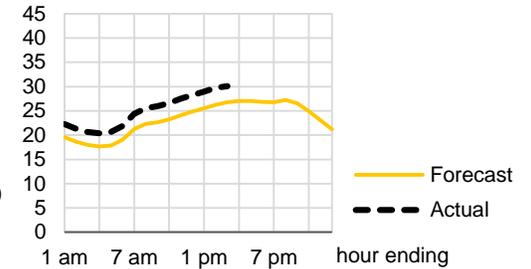


### North & South Carolina region electricity load

**Current day vs. past 4 days**  
thousand megawatts

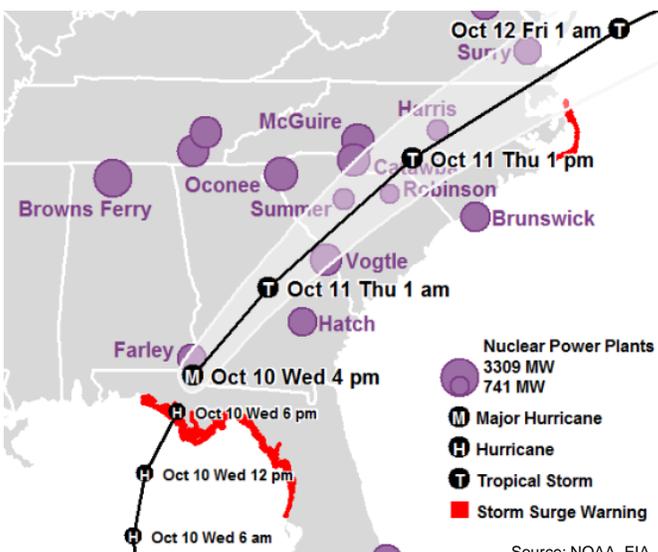


**Current day actual vs. forecast**  
thousand megawatts



Source: EIA

## NUCLEAR PLANTS & AVAILABILITY

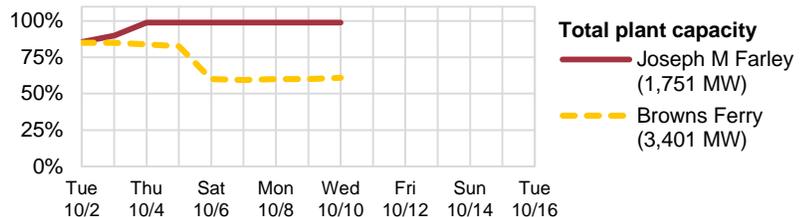


Source: NOAA, EIA

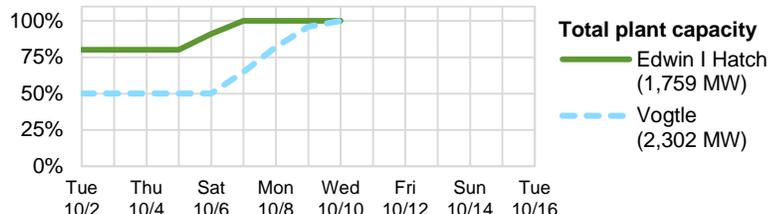
### Daily snapshot of nuclear plant availability

percent of total plant capacity

#### Alabama



#### Georgia



Source: NRC, EIA

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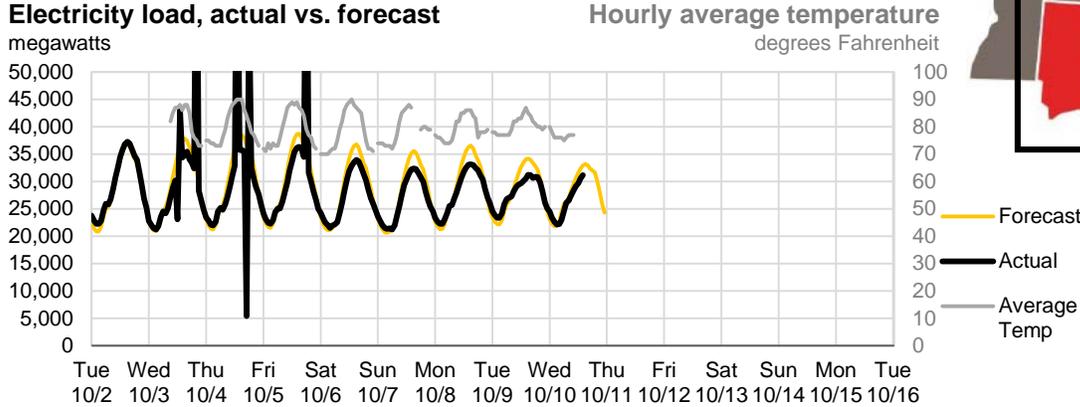
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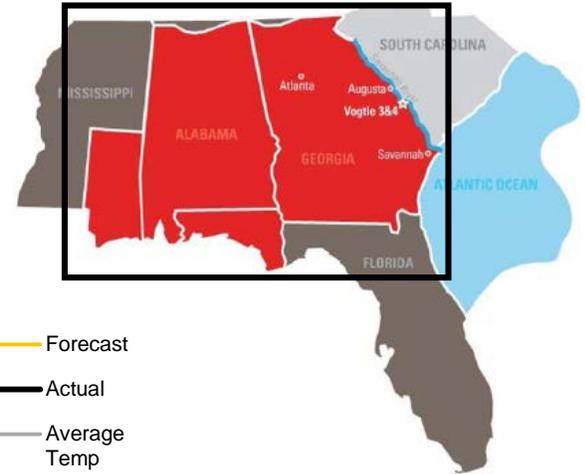
## SOUTHERN COMPANY SERVICES (SOCO)

Current electricity load data through hour ending 3 pm

### Southern Company Services (SOCO) Electricity load, actual vs. forecast

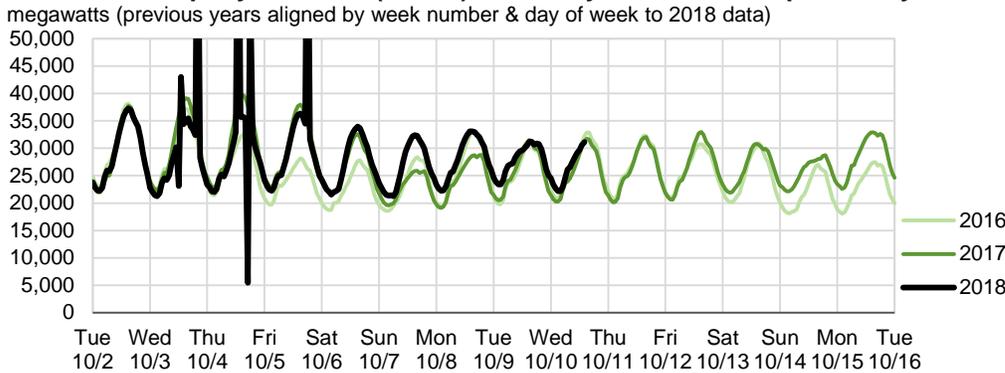


### Panama City, Florida Hourly average temperature



Source: Southern Company

### Southern Company Services (SOCO) electricity load, 2018 vs. past two years

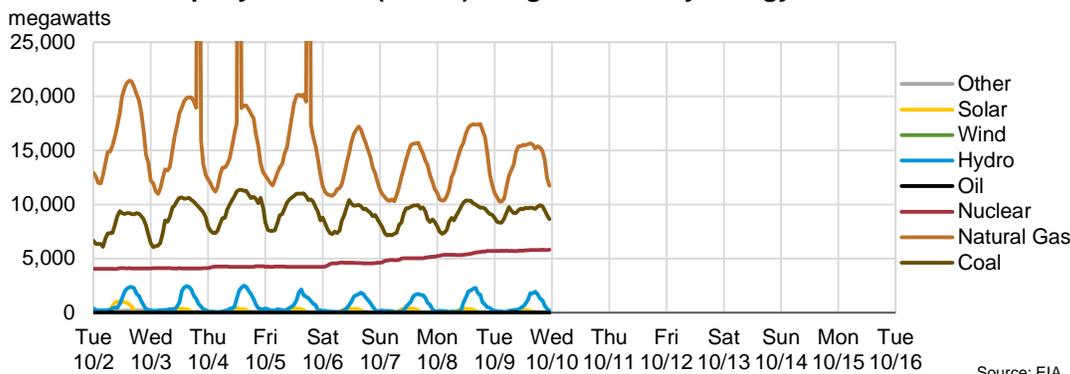


### Southern Company Services (SOCO) Balancing Authority Total Customers

4,712,660 customers, 96% of all customers in Georgia  
 1,651,193 customers, 64% of all customers in Alabama  
 470,906 customers, 4% of all customers in Florida

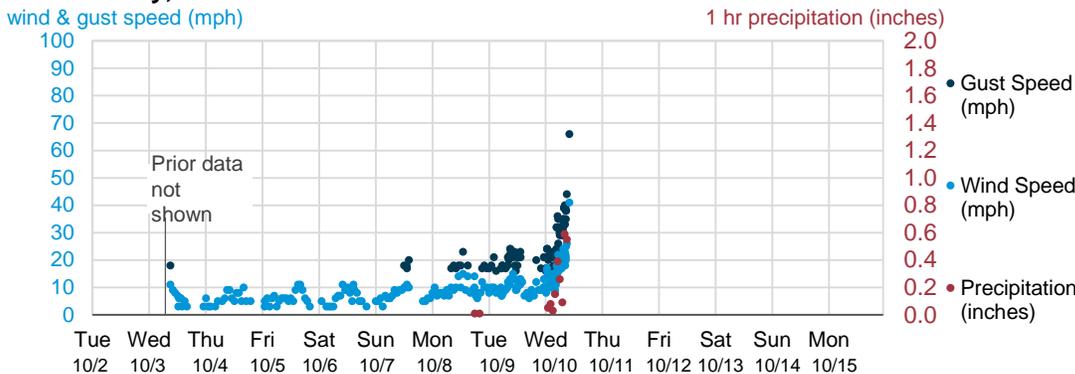
Source: EIA

### Southern Company Services (SOCO) net generation by energy source



Source: EIA

### Panama City, Florida weather



Source: NOAA

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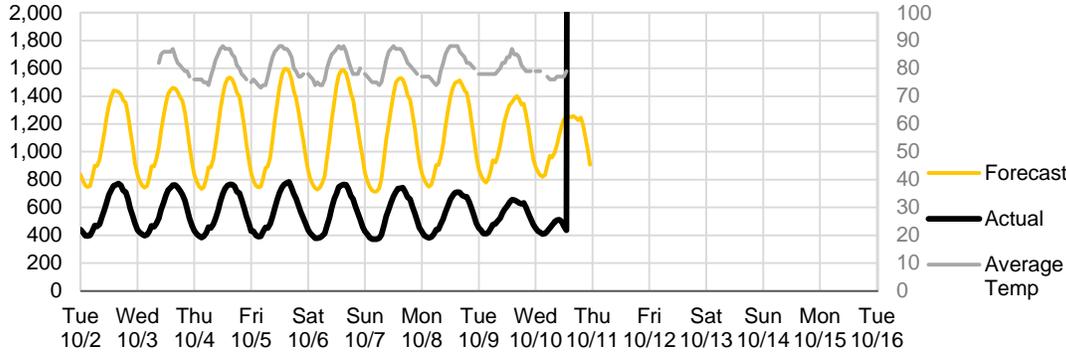
## POWERSOUTH ENERGY COOPERATIVE (AEC)

Current electricity load data through hour ending 3 pm

### Power South Energy Cooperative (AEC)

#### Electricity load, actual vs. forecast

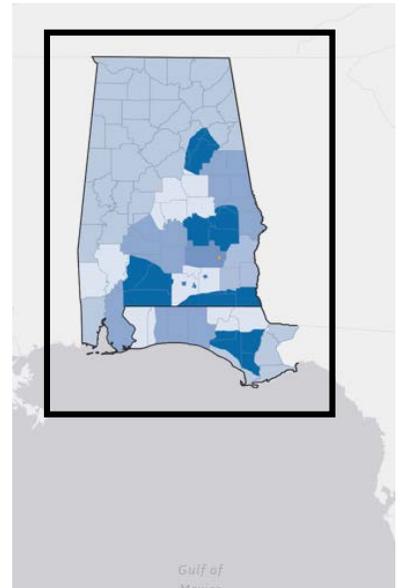
megawatts



### Pensacola, Florida

#### Hourly average temperature

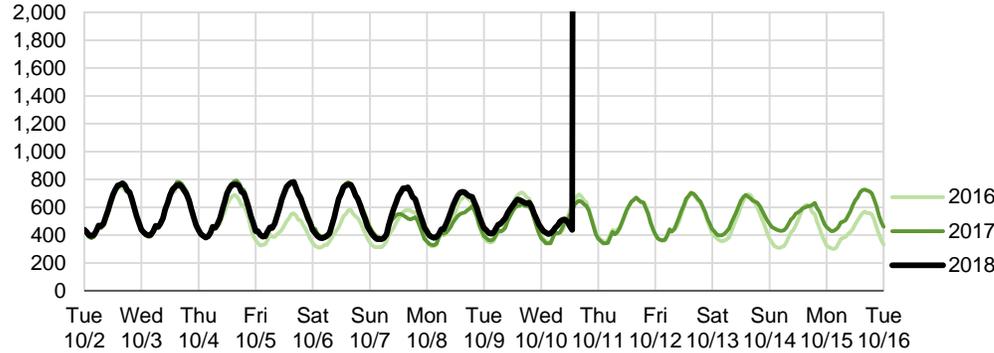
degrees Fahrenheit



Source: PowerSouth Energy Cooperative, EIA

### Power South Energy Cooperative (AEC) electricity load, 2018 vs. past two years

megawatts (previous years aligned by week number & day of week to 2018 data)

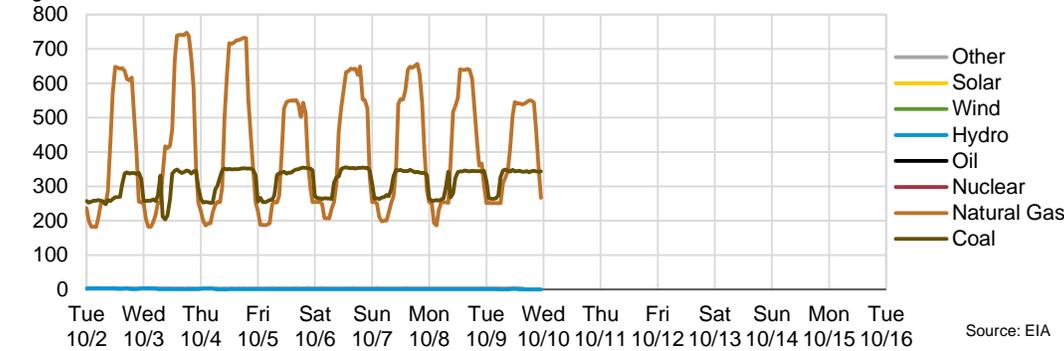


**PowerSouth Energy Cooperative (AEC) Balancing Authority Total Customers**  
 334,517 customers, 13% of all customers in Alabama  
 110,396 customers, 1% of all customers in South Carolina

Source: EIA

### Power South Energy Cooperative (AEC) net generation by energy source

megawatts

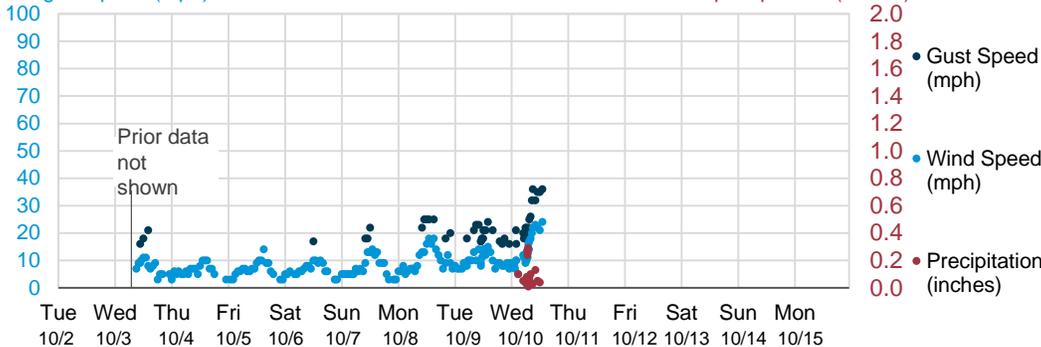


Source: EIA

### Pensacola, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Source: NOAA

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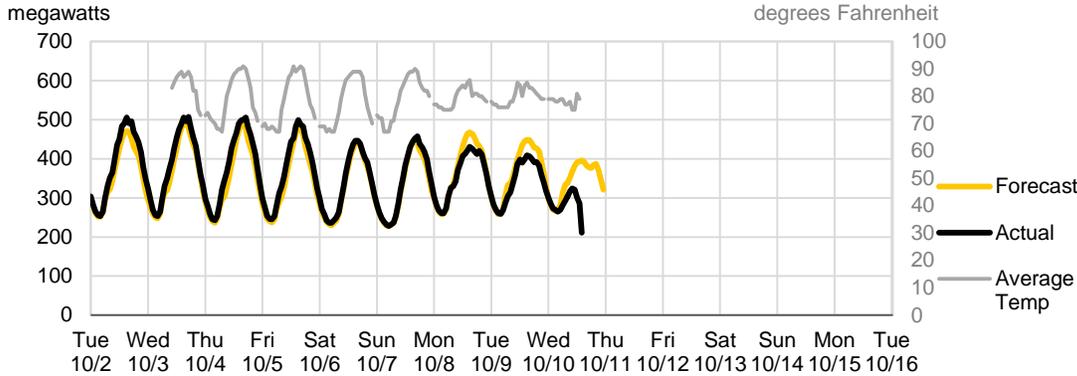


## CITY OF TALLAHASSEE (TAL)

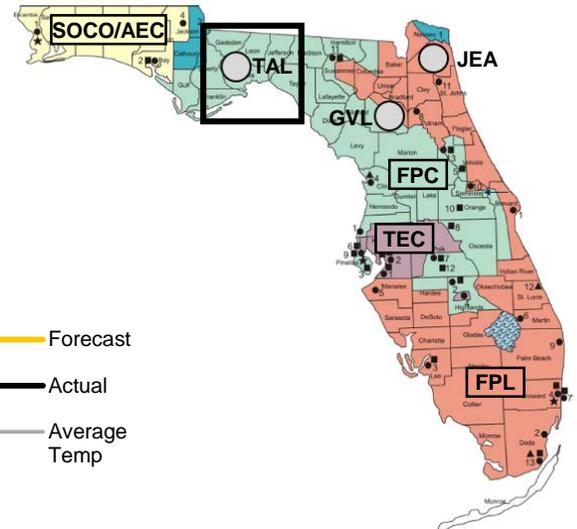
Current electricity load data through hour ending 3 pm

### City of Tallahassee (TAL)

#### Electricity load, actual vs. forecast



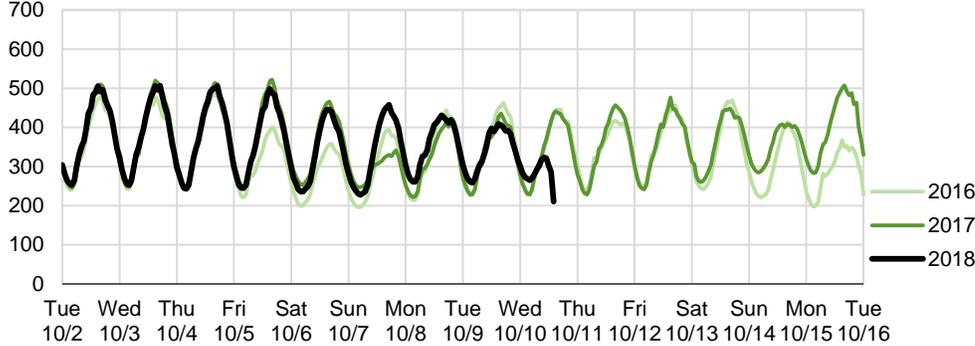
#### Tallahassee, Florida Hourly average temperature degrees Fahrenheit



Source: Florida PSC, EIA

### City of Tallahassee (TAL) electricity load, 2018 vs. past two years

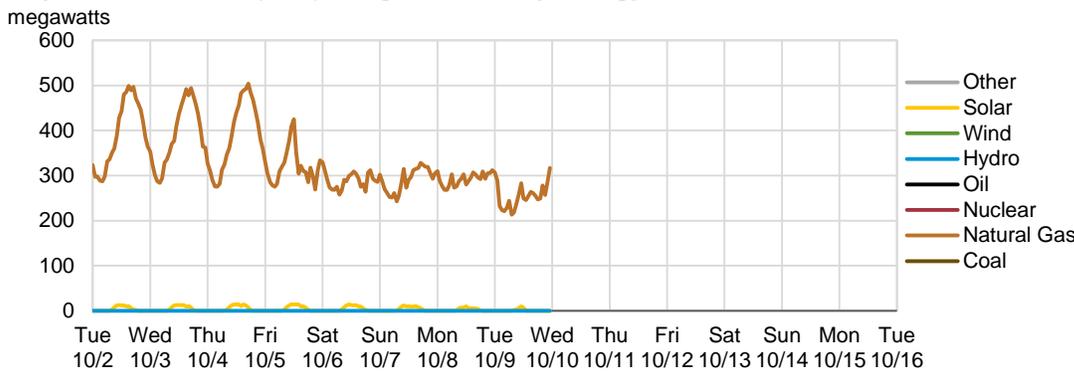
megawatts (previous years aligned by week number & day of week to 2018 data)



**City of Tallahassee (TAL)  
Balancing Authority  
Total Customers**  
115,556 customers, 1% of all  
customers in Florida

Source: EIA

### City of Tallahassee (TAL) net generation by energy source

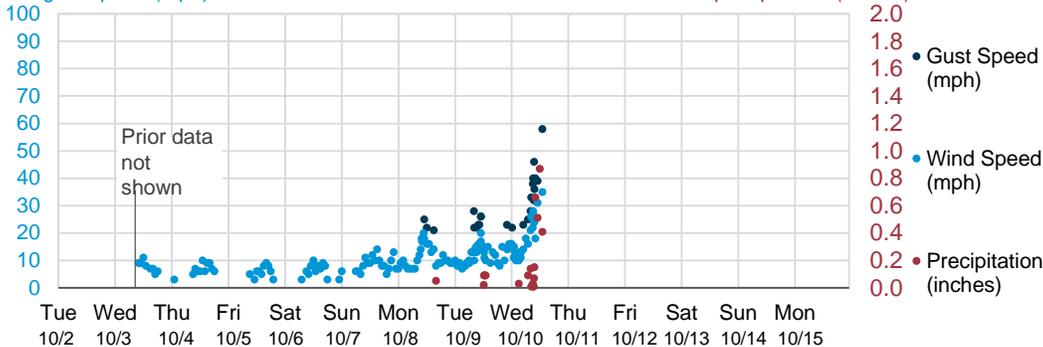


Source: EIA

### Tallahassee, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Source: NOAA

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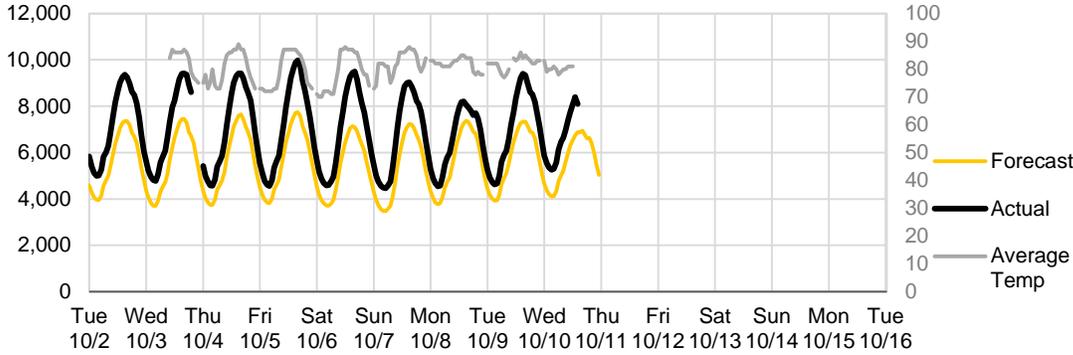
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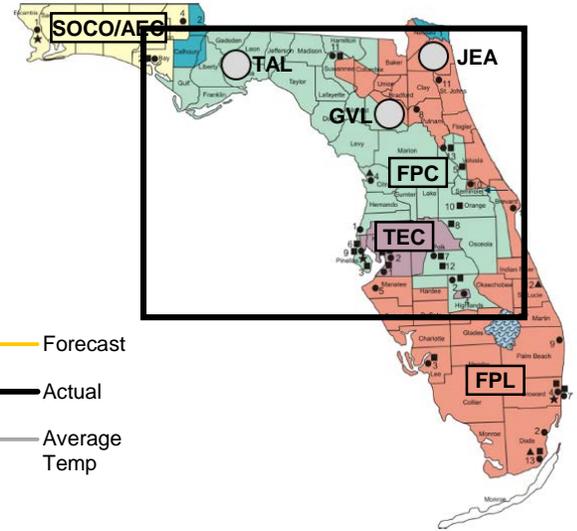
## DUKE ENERGY FLORIDA (FPC)

Current electricity load data through hour ending 3 pm

### Duke Energy Florida (FPC) Electricity load, actual vs. forecast megawatts

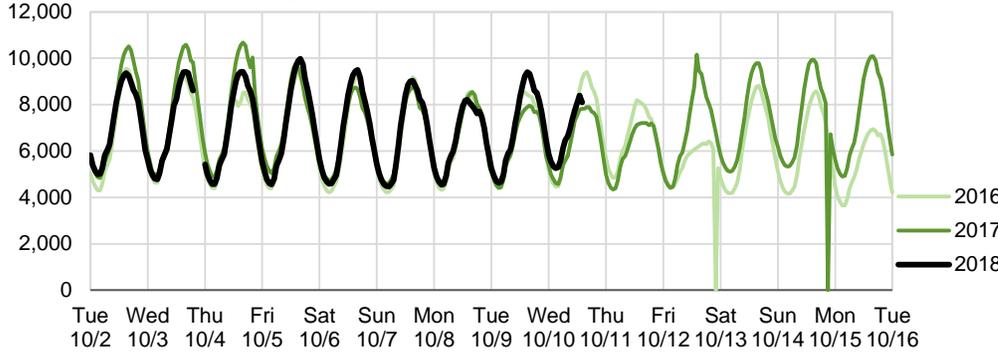


### Apalachicola, Florida Hourly average temperature degrees Fahrenheit



Source: Florida PSC, EIA

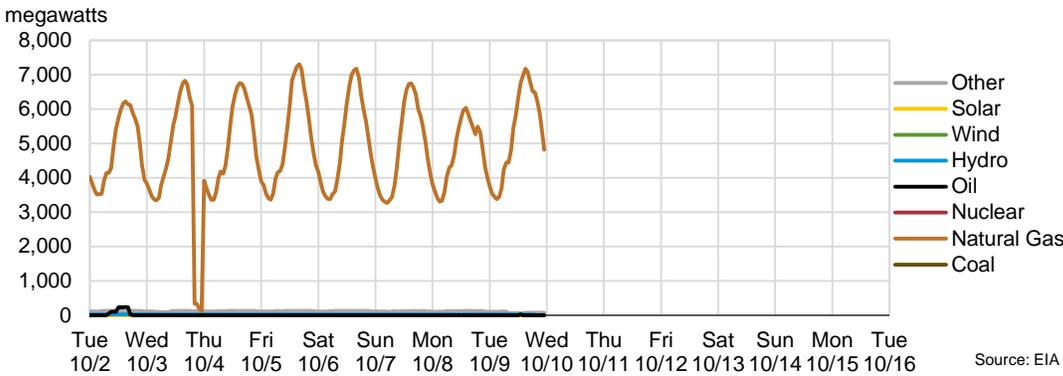
### Duke Energy Florida (FPC) electricity load, 2018 vs. past two years megawatts (previous years aligned by week number & day of week to 2018 data)



**Duke Energy Florida (FPC) Balancing Authority Total Customers**  
1,859,620 customers, 18% of all customers in Florida

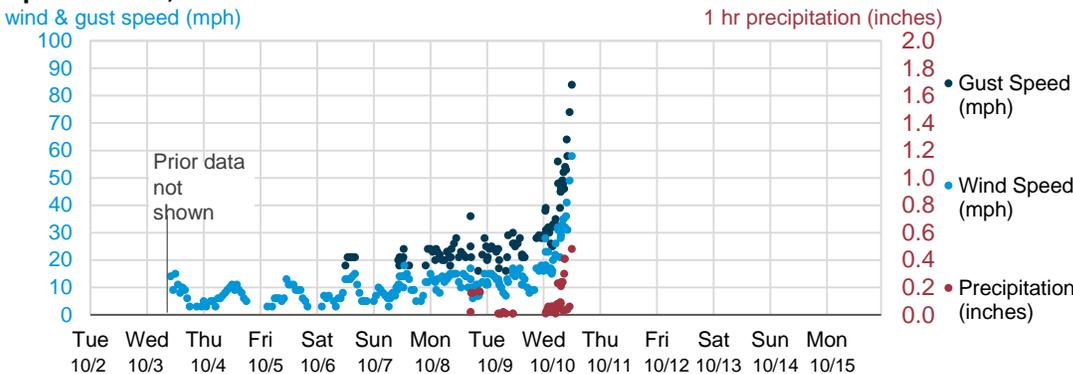
Source: EIA

### Duke Energy Florida (FPC) net generation by energy source megawatts



Source: EIA

### Apalachicola, Florida weather



Source: NOAA

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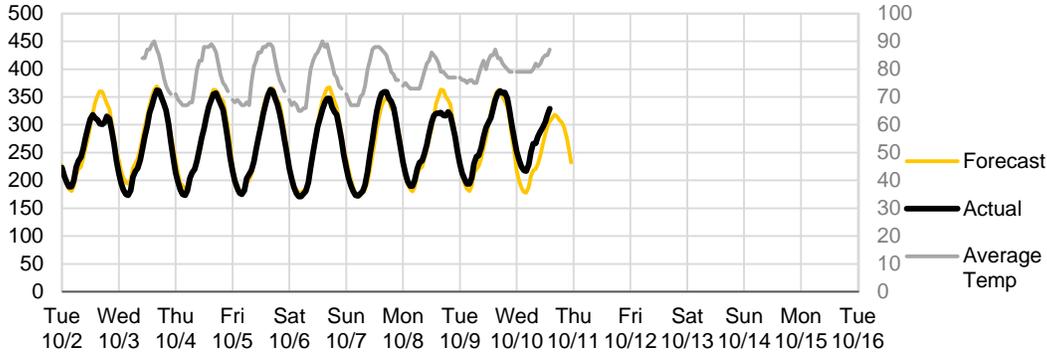
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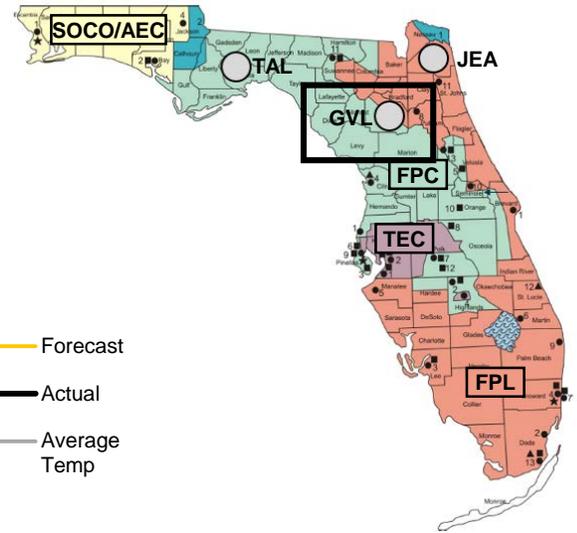
## GAINESVILLE REGIONAL UTILITIES (GVL)

Current electricity load data through hour ending 3 pm

### Gainesville Regional Utilities (GVL) Electricity load, actual vs. forecast

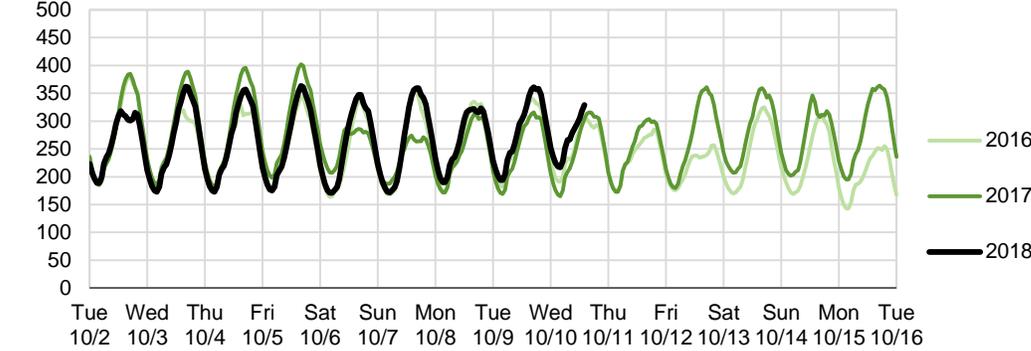


### Gainesville, Florida Hourly average temperature



Source: Florida PSC, EIA

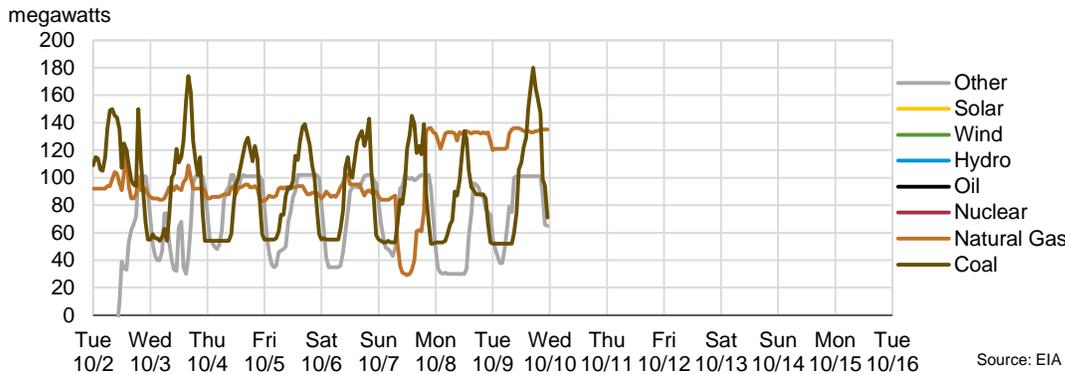
### Gainesville Regional Utilities (GVL) electricity load, 2018 vs. past two years



**Gainesville Regional Utilities (GVL) Balancing Authority Total Customers**  
97,246 customers, 1% of all customers in North Carolina

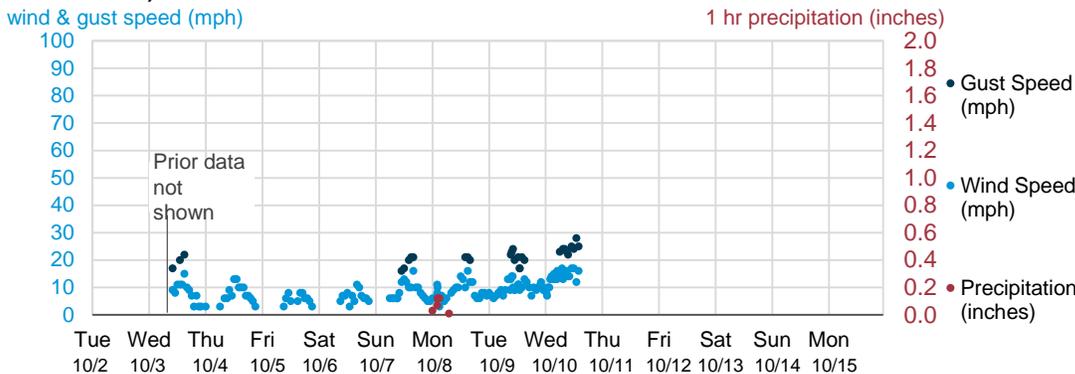
Source: EIA

### Gainesville Regional Utilities (GVL) net generation by energy source



Source: EIA

### Gainesville, Florida weather



Source: NOAA

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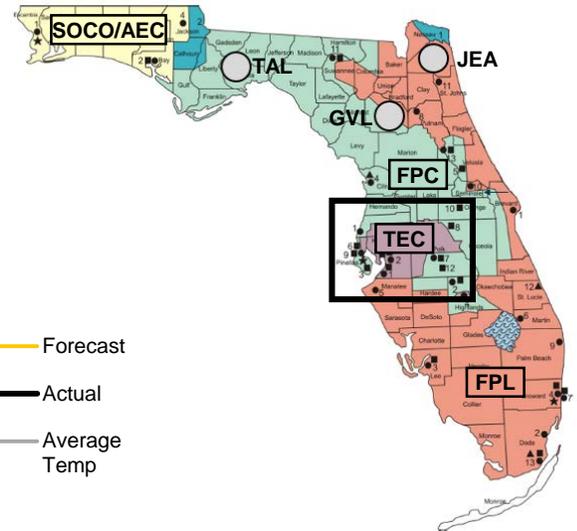
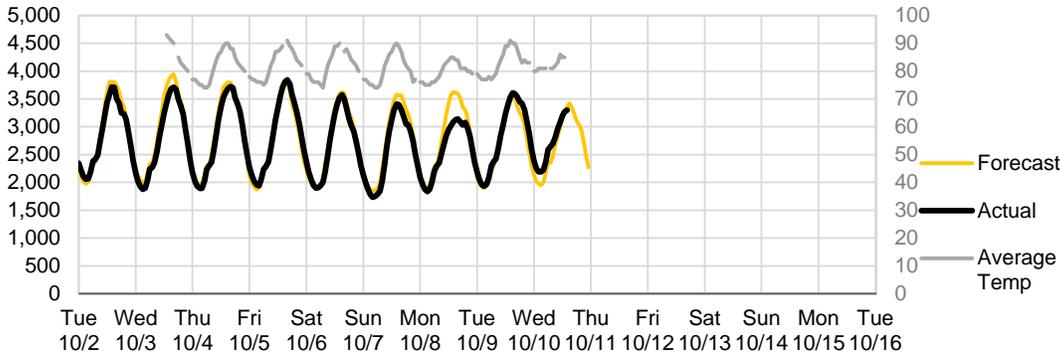
## TAMPA ELECTRIC COMPANY (TEC)

Current electricity load data through hour ending 3 pm

### Tampa Electric Company (TEC)

Electricity load, actual vs. forecast  
megawatts

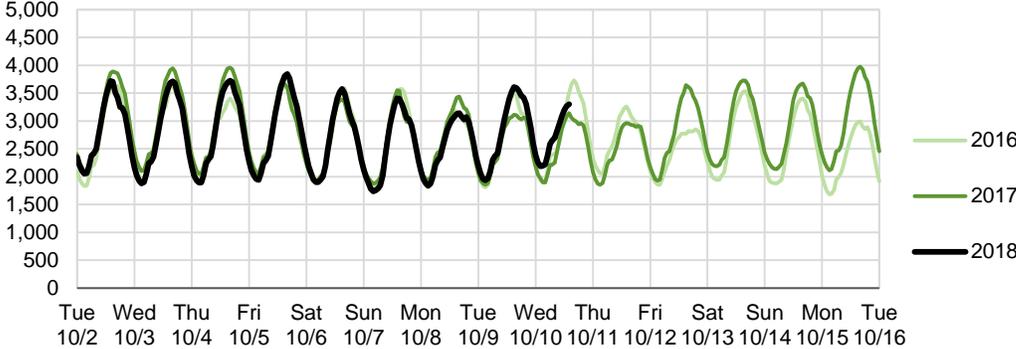
### Tampa, Florida Hourly average temperature degrees Fahrenheit



Source: Florida PSC, EIA

### Tampa Electric Company (TEC) electricity load, 2018 vs. past two years

megawatts (previous years aligned by week number & day of week to 2018 data)



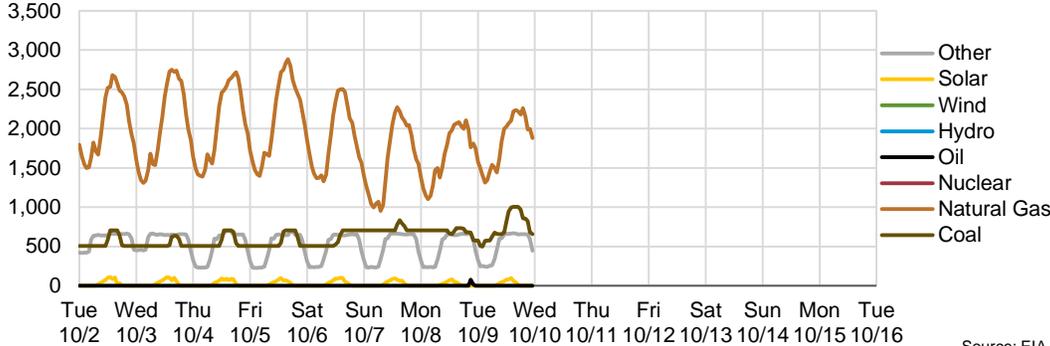
**Tampa Electric Company (TEC) Balancing Authority Total Customers**

747,493 customers, 7% of all customers in Florida

Source: EIA

### Tampa Electric Company (TEC) net generation by energy source

megawatts

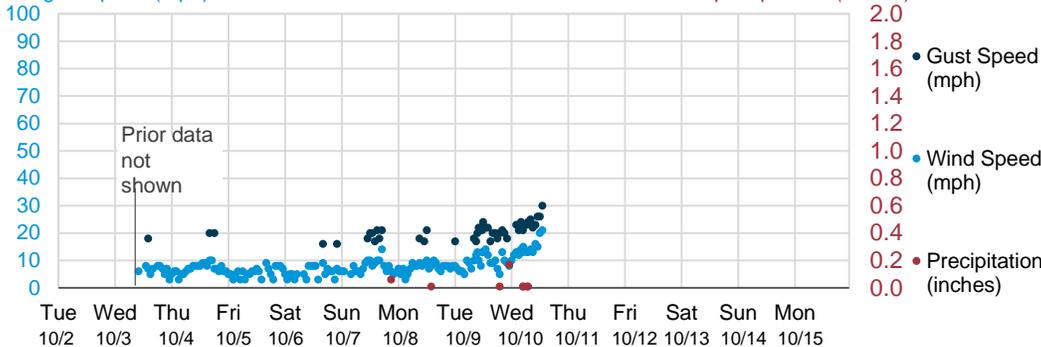


Source: EIA

### Tampa, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Source: NOAA

## DATA SOURCES & NOTES

- **Hourly electricity load, load forecast, and generation by energy source:** [EIA-930 data](#). Note that information submitted by reporting entities (balancing authorities (BAs)) is preliminary data and made available "as-is" by EIA. Neither EIA nor reporting entities are responsible for reliance on the data for any specific use. See the [EIA-930 user guide](#) for more information about the EIA-930 data collection.

BAs are responsible for assuring in real-time that electricity supply and demand are balanced within a specified geographical footprint. An electric utility that functions as a balancing authority will likely have an area of responsibility that extends beyond its service territory, providing grid balancing services to other electric power companies. For example, the Southern Company Services (SOCO) balancing authority is responsible for balancing the grid in an area that extends beyond Southern Company's utility service territories.

There can be systematic differences between BAs' reported actual and forecast load because of the way some BAs operate their systems and EIA's reporting requirements. Examples include PowerSouth Energy Cooperative (AEC) and Duke Energy Florida (FPC).

Below are direct links to EIA-930 webpages (with select data series) or excel files (with all data series and a full history) for the balancing authorities highlighted in this report:

- North & South Carolina region: [website](#)
- Southeast region: [website](#)
- Florida region: [website](#)
- Southern Company Services (SOCO): [website](#), [Excel file](#) (includes generation by energy source)
- PowerSouth Energy Cooperative (AEC): [website](#), [Excel file](#) (includes generation by energy source)
- City of Tallahassee (TAL): [website](#), [Excel file](#) (includes generation by energy source)
- Duke Energy Florida (FPC): [website](#), [Excel file](#) (includes generation by energy source)
- Gainesville Regional Utilities (GVL): [website](#), [Excel file](#) (includes generation by energy source)
- Tampa Electric Company (TEC): [website](#), [Excel file](#) (includes generation by energy source)
- **Weather data:** NOAA data for the cities and locations listed below:
  - Panama City, FL: [Tyndall Airforce Base Airport](#)
  - Pensacola, FL: [Pensacola Regional Airport](#)
  - Tallahassee, FL: [Tallahassee Regional Airport](#)
  - Apalachicola, FL: [Apalachicola Municipal Airport](#)
  - Gainesville, FL: [Gainesville Regional Airport](#)
  - Tampa, FL: [Tampa International Airport](#)
- **Nuclear plant outages:** [Nuclear Regulatory Commission](#), displayed on EIA's [Status of U.S. Nuclear Outages](#). The NRC updates its reactor status information once each morning on business days. The NRC information is supplemented as necessary by press reports.
- **Number of customer outages:** Florida Public Service Commission Hurricane Michael [outage report](#), [poweroutage.us](#), and utility websites. A "customer" typically represents one metered location. The number of customers is not equivalent to the number of persons without power. Customers include all types of power purchasers but are primarily residences. The outage estimates presented in the commentary section of this report are a snapshot in time. Outage numbers can change rapidly as weather conditions deteriorate or improve and repairs are effectuated.