

# EIA Hurricane Michael Electricity Status Report

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

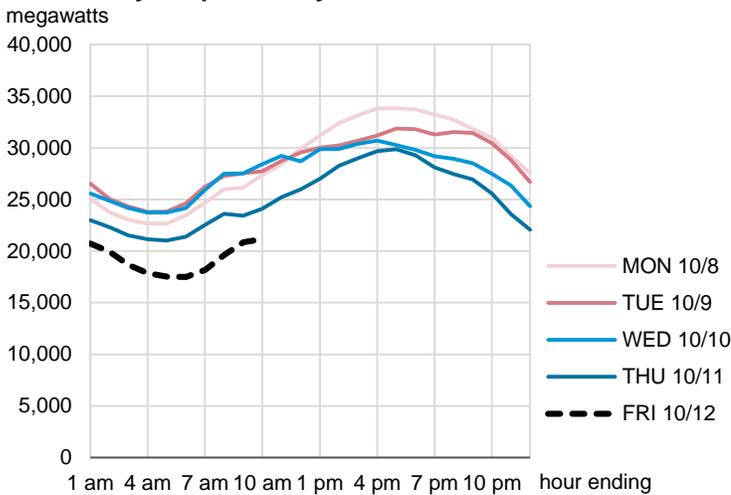


**Friday, October 12, 2018** *Note: this will be the final report of the series.*

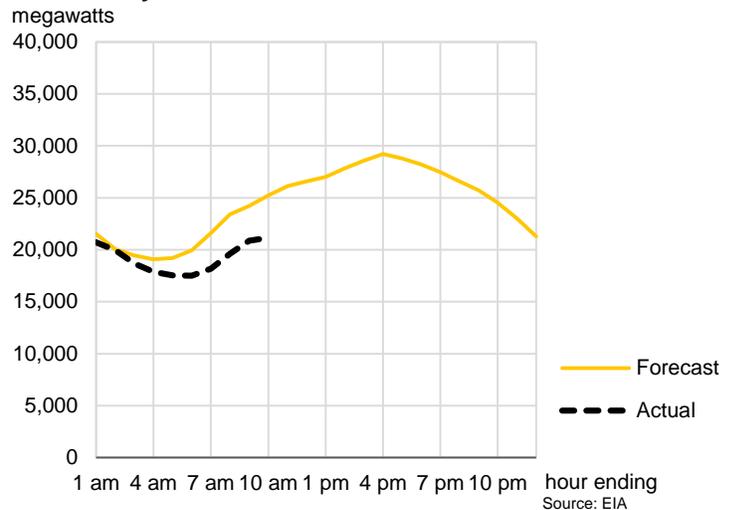
- Weather:** Tropical Storm Michael moved rapidly through Georgia, the Carolinas, and Virginia yesterday with heavy rainfall and up to 65 mile-per-hour winds extending 275 miles from the center before entering the Atlantic Ocean this morning.
- Electricity:** The hurricane's impact can be most clearly seen in the TAL (City of Tallahassee) balancing authority (BA), where load remains very low but is showing signs of recovery. Loads yesterday and today in other BAs, including DUK and CPLE in the Carolinas (see p. 7-8), were slightly lower than previous days; however, a steep drop in temperatures overnight partially obscures the impact of recovery efforts on load.
- Generators:** Both reactors at the 1,751-megawatt Farley nuclear plant in Alabama reported about 55% capacity availability this morning, up from 30% yesterday morning.
- Customer outages, as of 1:00 p.m.:** About 452,000 customers in Virginia (roughly 12% of the state); 410,000 customers in North Carolina (8%); 280,000 customers in Florida (3%); 146,000 customers in Georgia (3%); 23,000 customers in Alabama (1%); and 3,000 customers in South Carolina (<1%). Recovery is underway, but outages remain in the areas with the most severe (Florida and Georgia) and recent (North Carolina and Virginia) impacts.

## REGIONAL OVERVIEW

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



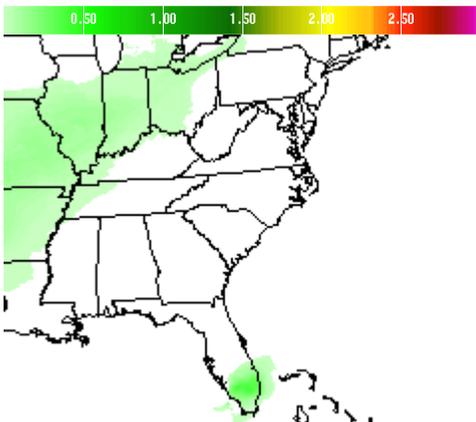
### Southeast region electricity load current day actual vs. forecast



## WEATHER PROJECTIONS

### Precipitation

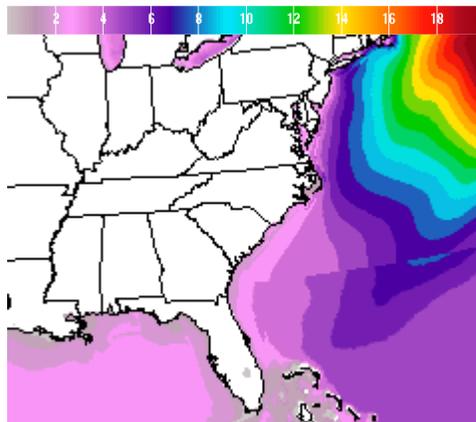
inches  
6 hr period ending Fri Oct 12 at 8 pm EDT



6Hr Precip.Amt(in) Ending Fri Oct 12 2018 8PM EDT  
(Sat Oct 13 2018 00Z)  
National Digital Forecast Database  
13z issuance Graphic created-Oct 12 9:24AM EDT

### Wave Height

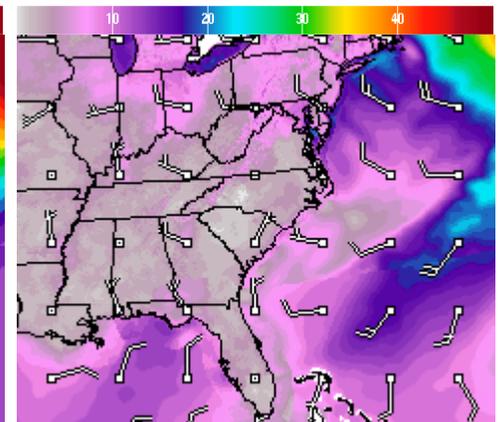
feet  
for Fri Oct 12 at 8 pm EDT



Wave Height(ft) Ending Fri Oct 12 2018 8PM EDT  
(Sat Oct 13 2018 00Z)  
National Digital Forecast Database  
13z issuance Graphic created-Oct 12 9:24AM EDT

### Wind Speed & Direction

knots (1 knot = 1.15 mph)  
for Fri Oct 12 at 8 pm EDT



WindSpd(Kts) & WindDir For Fri Oct 12 2018 8PM EDT  
(Sat Oct 13 2018 00Z)  
National Digital Forecast Database  
13z issuance Graphic created-Oct 12 9:43AM EDT

Source: NOAA

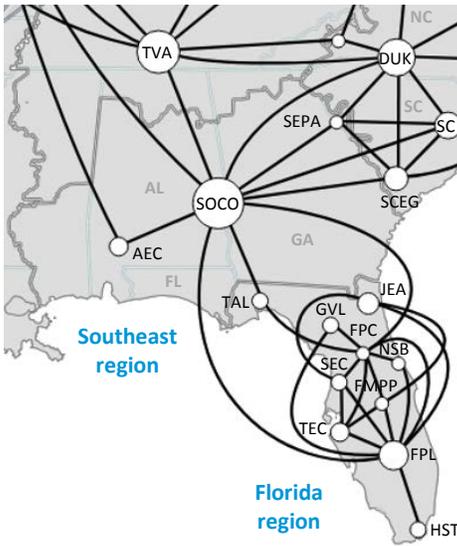
Send questions or comments about this report to [infoelectric@eia.gov](mailto:infoelectric@eia.gov).

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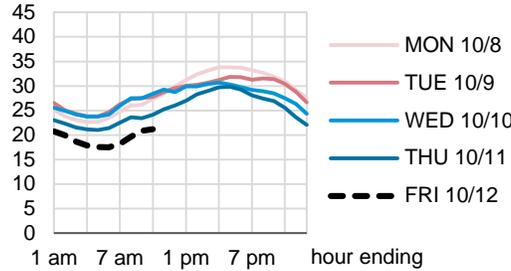
## REGIONAL OVERVIEW



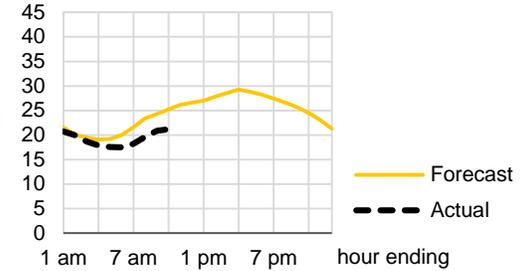
**Balancing Authorities**  
Maps indicate the balancing authorities within each region and the interconnections between balancing authorities

### Southeast region electricity load

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

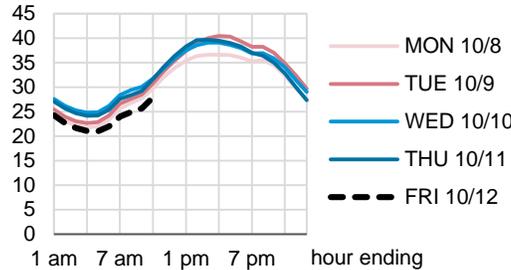


**Current day actual vs. forecast**  
thousand megawatts

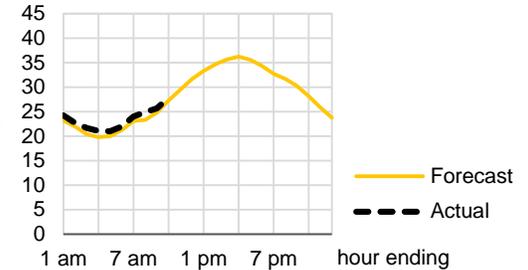


### Florida region electricity load

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

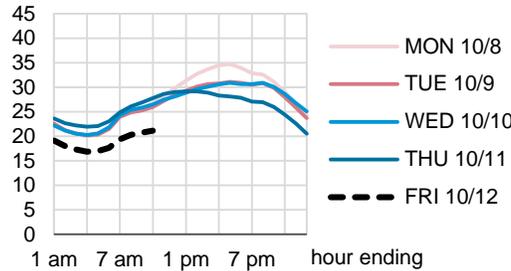


**Current day actual vs. forecast**  
thousand megawatts

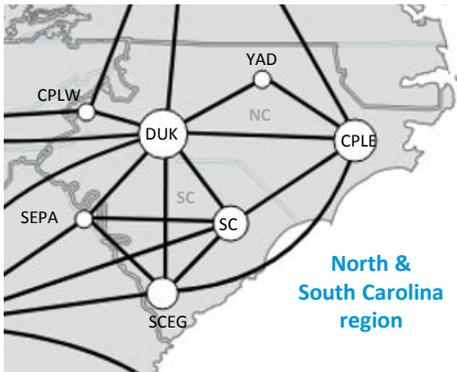
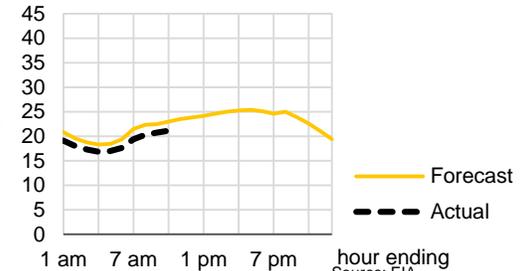


### North & South Carolina region electricity load

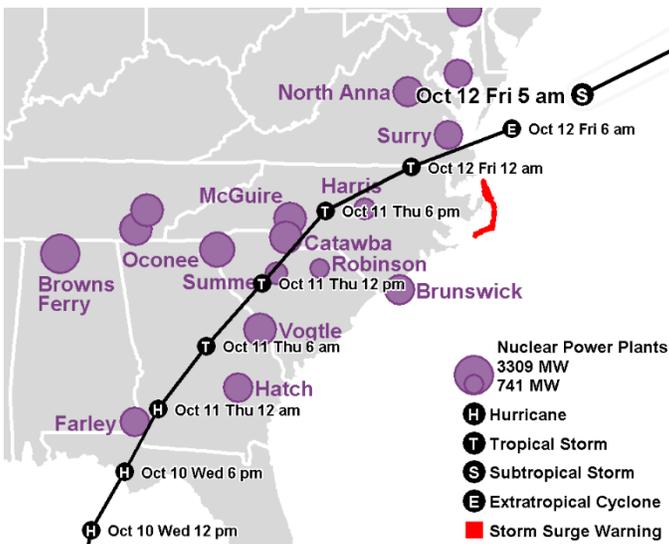
**Current day vs. past 4 days**  
thousand megawatts



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

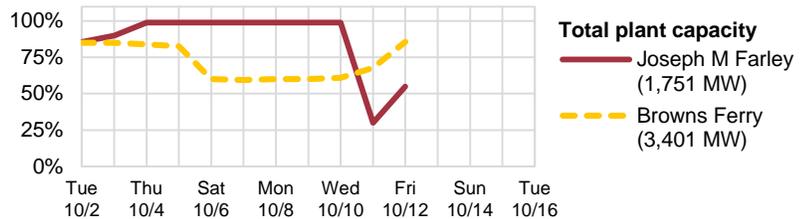


## NUCLEAR PLANTS & AVAILABILITY

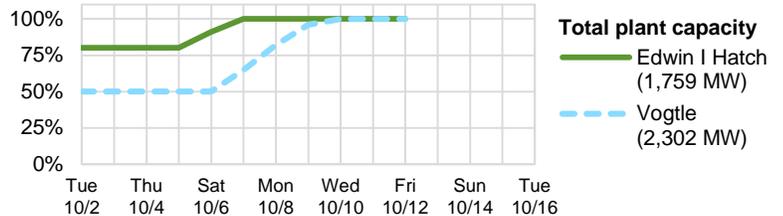


### Daily snapshot of nuclear plant availability

#### Alabama



#### Georgia



Source: NOAA, EIA

Source: NRC, EIA

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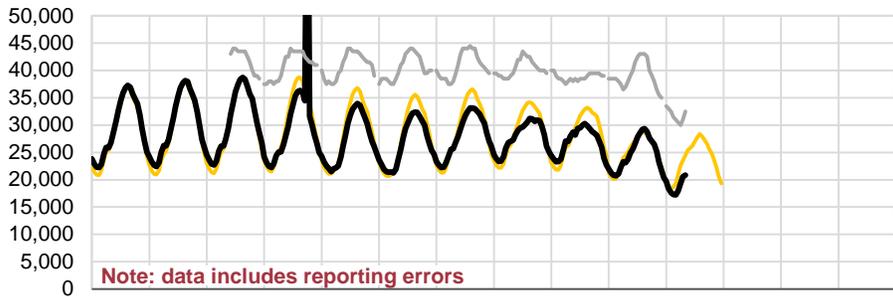
## SOUTHERN COMPANY SERVICES (SOCO)

Current electricity load data through hour ending 10 am

### Southern Company Services (SOCO)

#### Electricity load, actual vs. forecast

megawatts



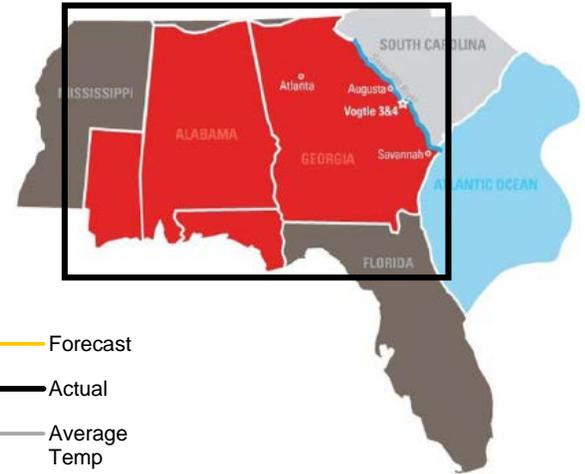
Note: data includes reporting errors

Tue 10/2 Wed 10/3 Thu 10/4 Fri 10/5 Sat 10/6 Sun 10/7 Mon 10/8 Tue 10/9 Wed 10/10 Thu 10/11 Fri 10/12 Sat 10/13 Sun 10/14 Mon 10/15 Tue 10/16

### Destin, Florida

#### Hourly average temperature

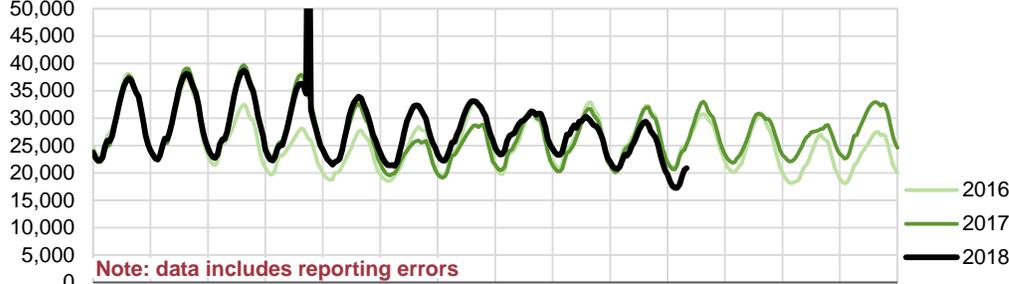
degrees Fahrenheit



Source: Southern Company

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

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



Note: data includes reporting errors

Tue 10/2 Wed 10/3 Thu 10/4 Fri 10/5 Sat 10/6 Sun 10/7 Mon 10/8 Tue 10/9 Wed 10/10 Thu 10/11 Fri 10/12 Sat 10/13 Sun 10/14 Mon 10/15 Tue 10/16

### Southern Company Services (SOCO) Balancing Authority

#### 2017 Total Number of Customers

4,712,660 in Georgia  
96% of the state

1,651,193 in Alabama  
64% of the state

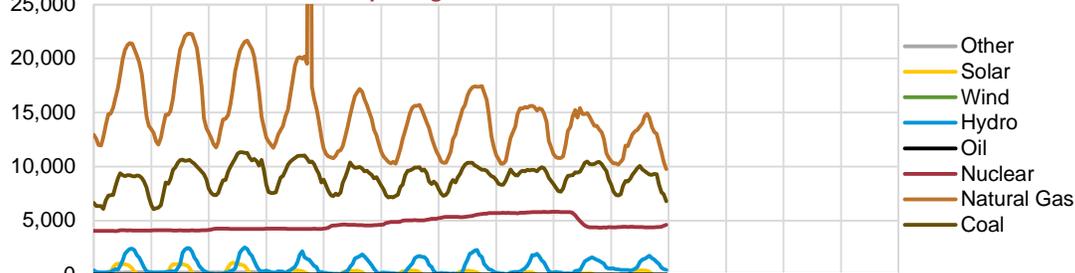
470,906 in Florida  
4% of the state

Source: EIA

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

megawatts

Note: data includes reporting errors



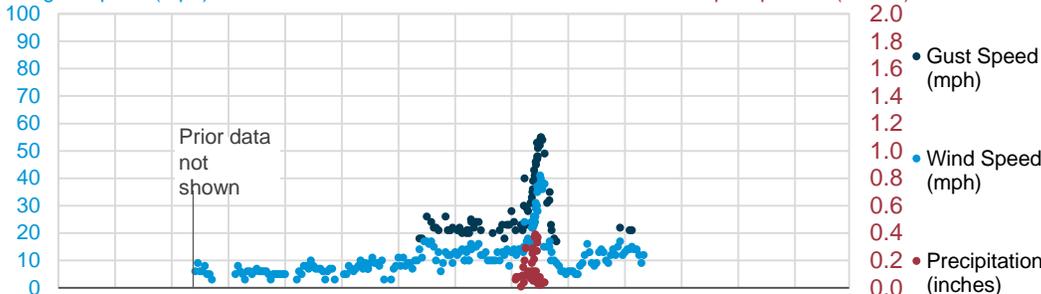
Tue 10/2 Wed 10/3 Thu 10/4 Fri 10/5 Sat 10/6 Sun 10/7 Mon 10/8 Tue 10/9 Wed 10/10 Thu 10/11 Fri 10/12 Sat 10/13 Sun 10/14 Mon 10/15 Tue 10/16

Source: EIA

### Destin, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Tue 10/2 Wed 10/3 Thu 10/4 Fri 10/5 Sat 10/6 Sun 10/7 Mon 10/8 Tue 10/9 Wed 10/10 Thu 10/11 Fri 10/12 Sat 10/13 Sun 10/14 Mon 10/15

Source: NOAA

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## POWERSOUTH ENERGY COOPERATIVE (AEC)

Current electricity load data through hour ending 10 am

### Power South Energy Cooperative (AEC)

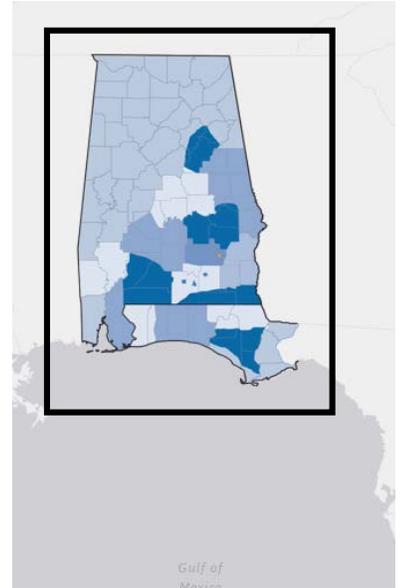
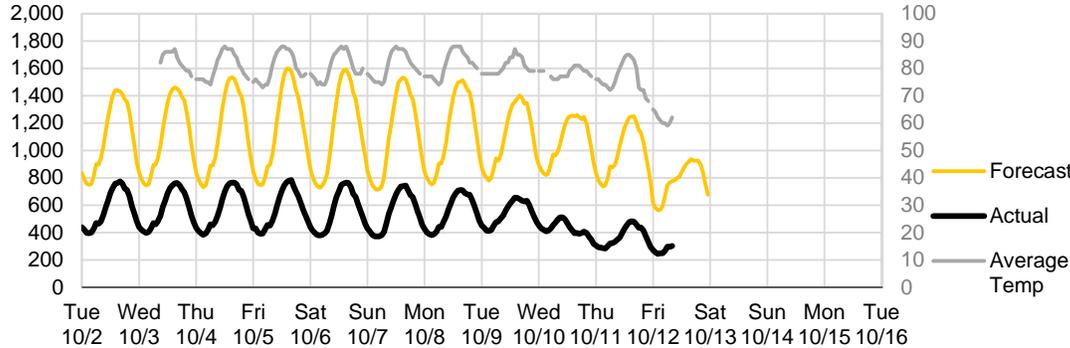
Electricity load, actual vs. forecast

megawatts

### Pensacola, Florida

Hourly average temperature

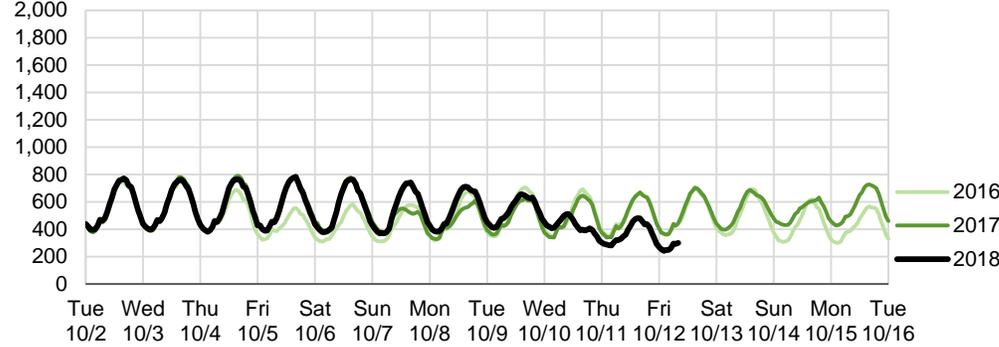
degrees Fahrenheit



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**

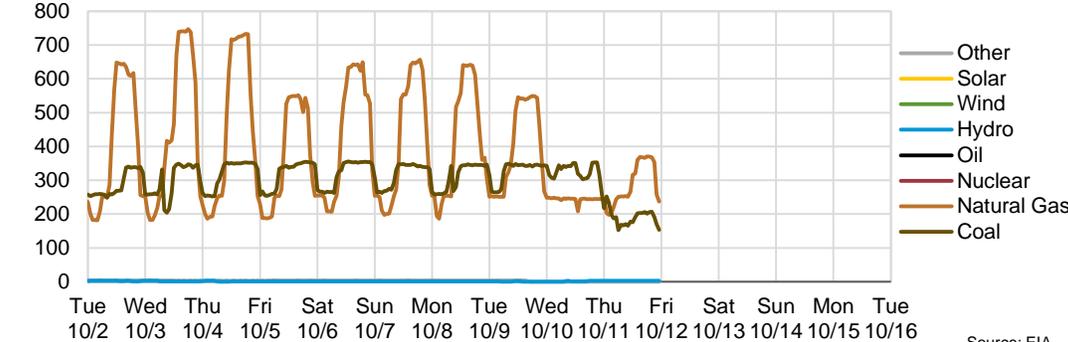
**2017 Total Number of Customers**  
 334,517 in Alabama  
 13% of the state

110,396 in Florida  
 1% of the state

Source: EIA

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

megawatts

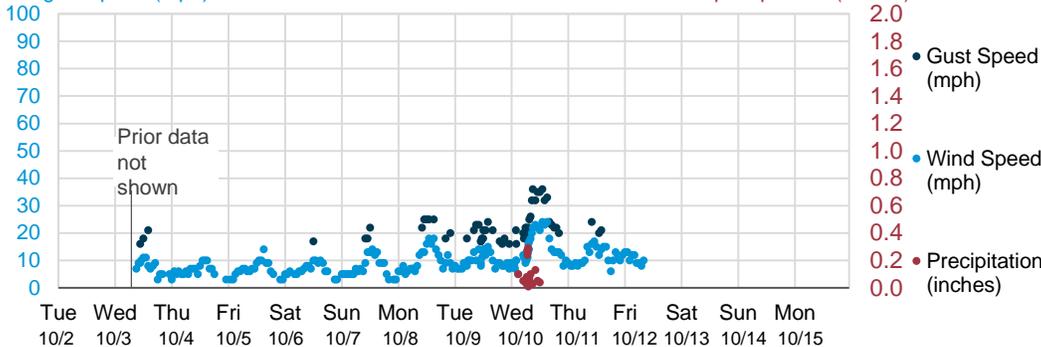


Source: EIA

### Pensacola, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Source: NOAA

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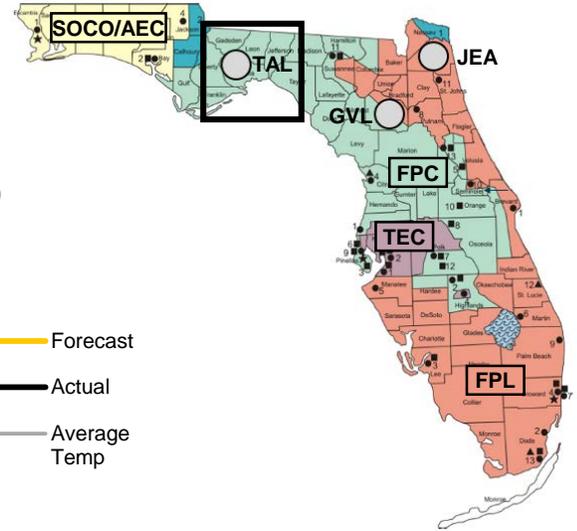
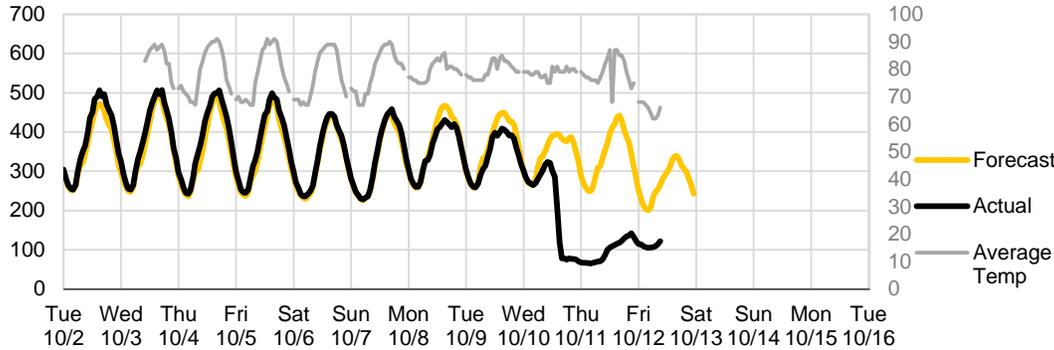


## CITY OF TALLAHASSEE (TAL)

Current electricity load data through hour ending 10 am

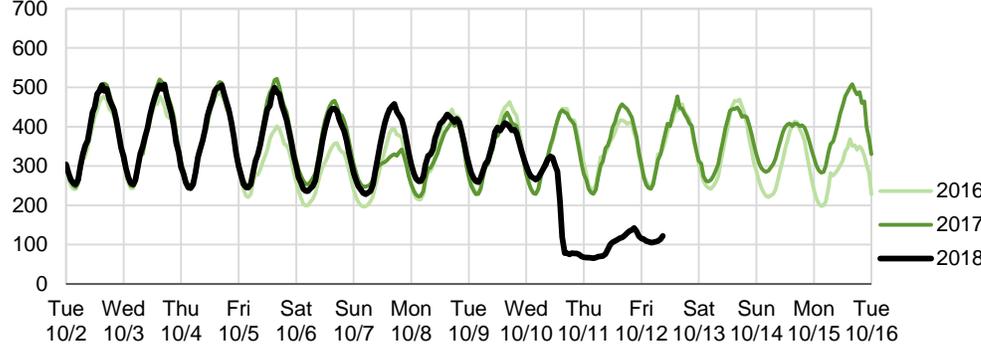
**City of Tallahassee (TAL)**  
Electricity load, actual vs. forecast

**Tallahassee, Florida**  
Hourly average temperature



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**

**2017 Total Number of Customers**  
115,556 in Florida  
1% of the state

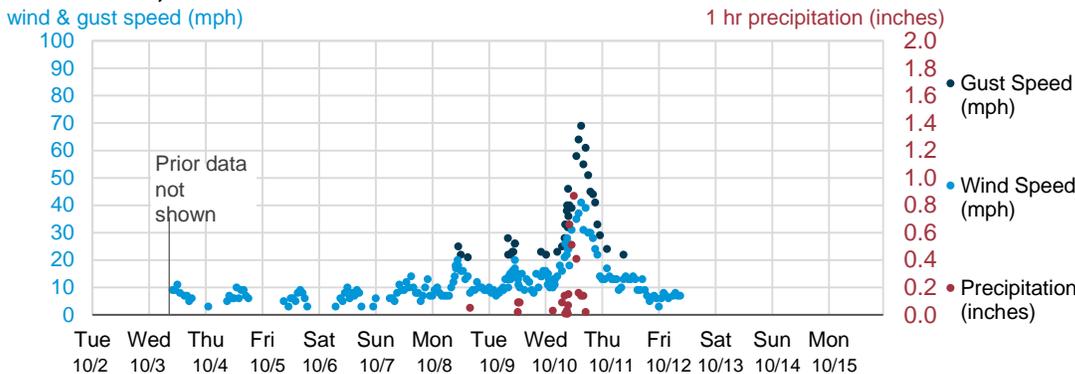
Source: EIA

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



Source: EIA

**Tallahassee, Florida weather**



Source: NOAA

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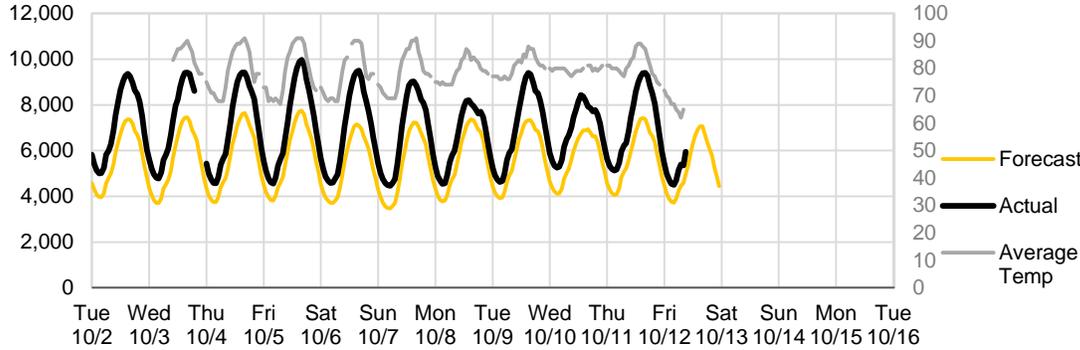


## DUKE ENERGY FLORIDA (FPC)

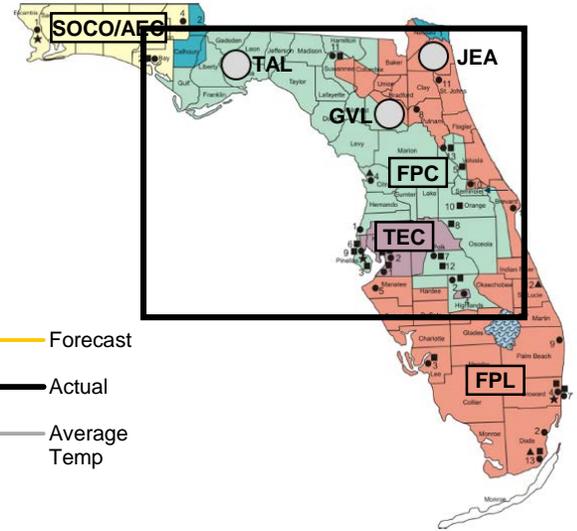
Current electricity load data through hour ending 10 am

### Duke Energy Florida (FPC)

Electricity load, actual vs. forecast  
megawatts



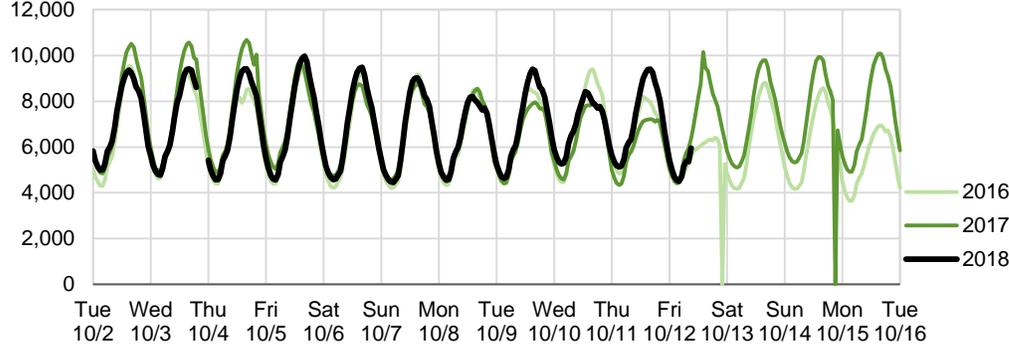
Perry, Florida  
Hourly average temperature  
degrees Fahrenheit



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)

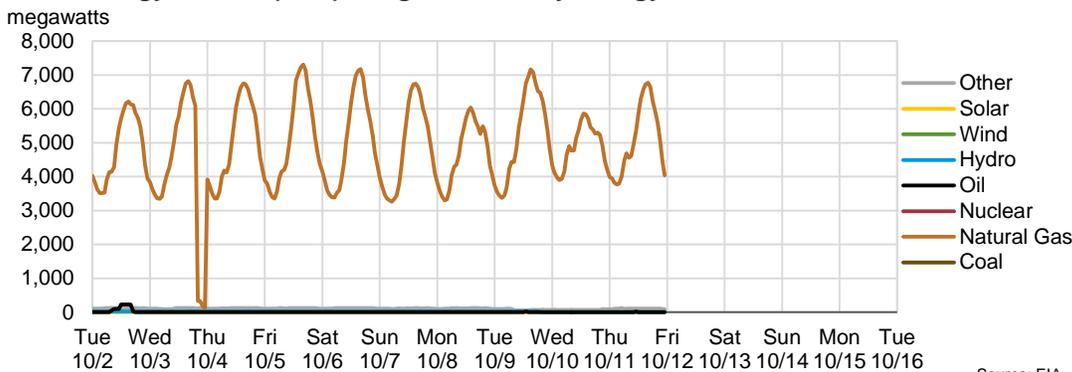


**Duke Energy Florida (FPC) Balancing Authority**

**2017 Total Number of Customers**  
1,859,620 in Florida  
18% of the state

Source: EIA

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

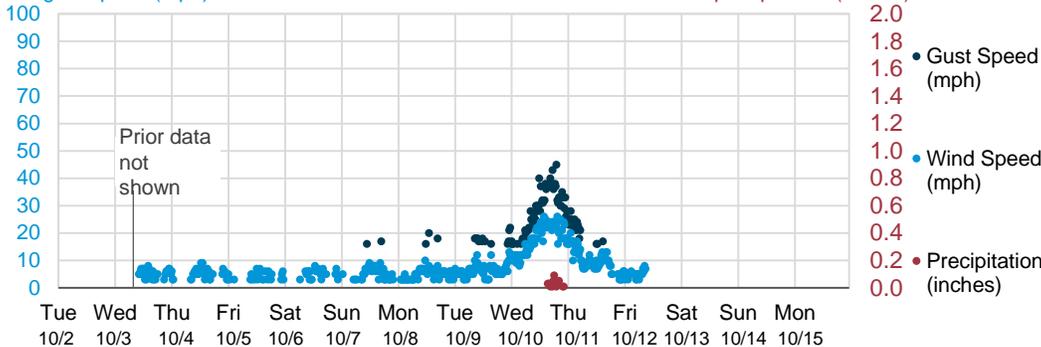


Source: EIA

### Perry, Florida weather

wind & gust speed (mph)

1 hr precipitation (inches)



Source: NOAA

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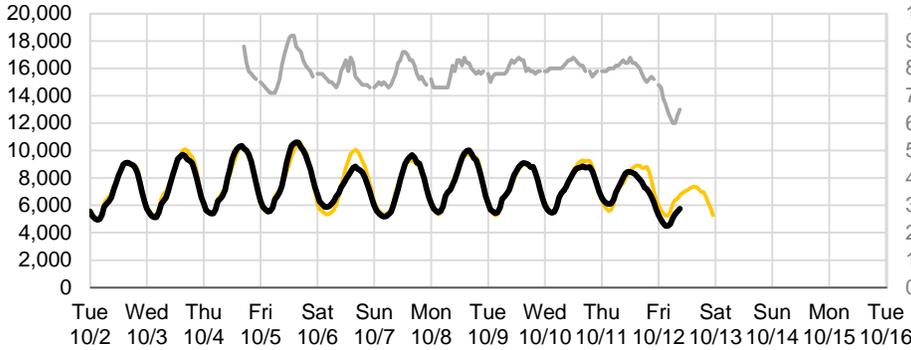
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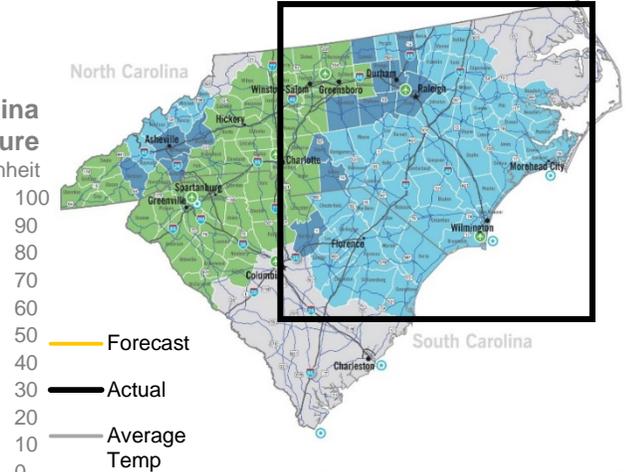
## DUKE ENERGY PROGRESS EAST (CPLE)

Current electricity load data through hour ending 10 am

### Duke Energy Progress East (CPLE) Electricity load, actual vs. forecast



### Wilmington, North Carolina Hourly average temperature



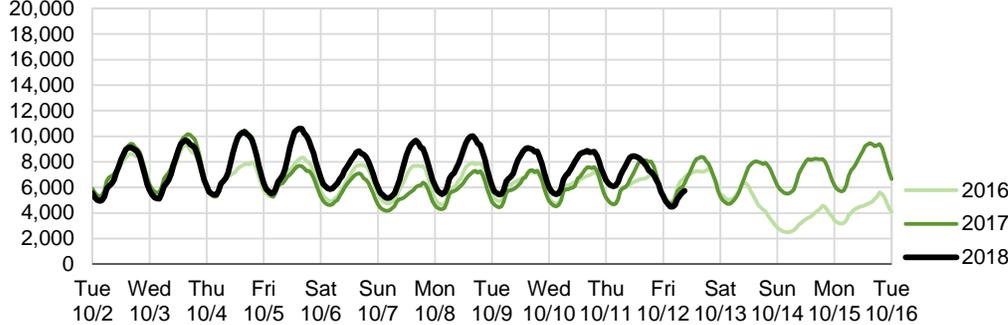
**Service Territory**  
Counties Served\*

- Duke Energy Progress
- Duke Energy Carolinas
- Overlapping Territory
- Shipping Port
- Major Airport
- Interstate Highways
- State Highways

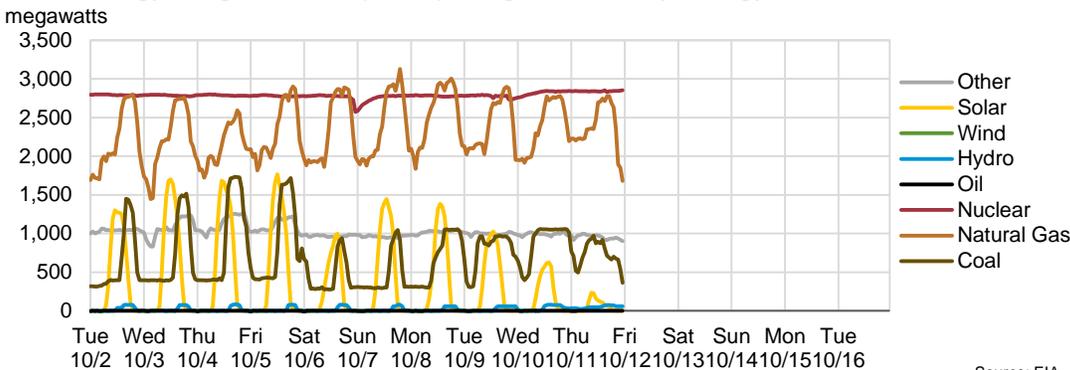
\*Portions may be served by other utilities.

Source: Duke Energy

### Duke Energy Progress East (CPLE) electricity load, 2018 vs. past two years



### Duke Energy Progress East (CPLE) net generation by energy source



Source: EIA

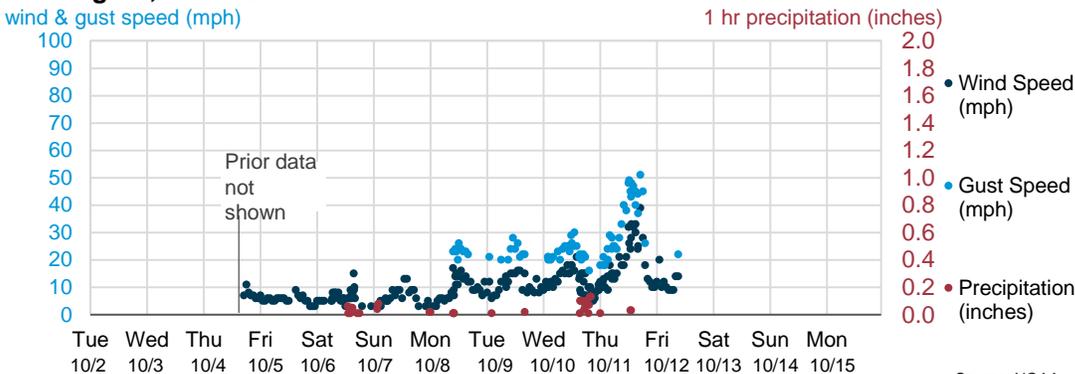
**Duke Energy Progress East (CPLE) & Duke Energy Progress West (CPLW) Balancing Authorities**

**Combined 2017 Total Number of Customers**

- 2,302,785 in North Carolina  
44% of the state
- 179,577 in South Carolina  
7% of the state
- 1,017 in Tennessee  
<1% of the state

Source: EIA

### Wilmington, North Carolina weather



Source: NOAA

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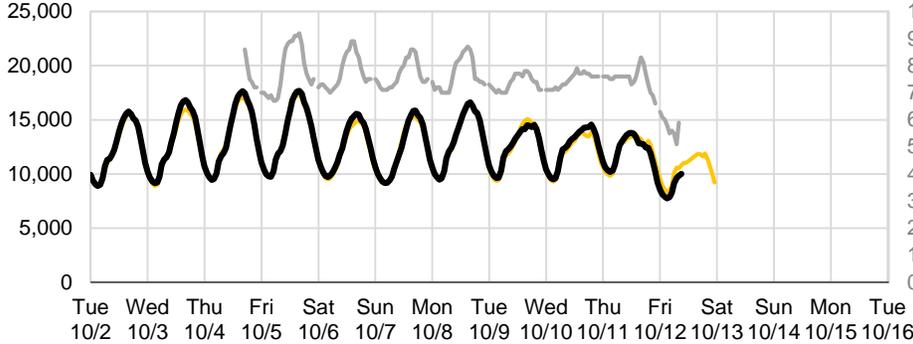
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## DUKE ENERGY CAROLINAS (DUK)

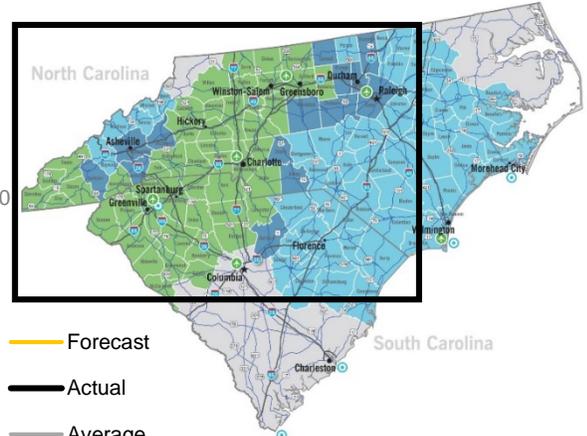
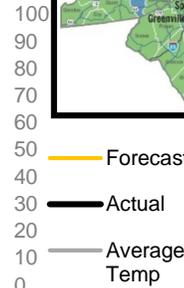
Current electricity load data through hour ending 10 am

### Duke Energy Carolinas (DUK) Electricity load, actual vs. forecast



### Charlotte, North Carolina Hourly average temperature

degrees Fahrenheit



### Service Territory Counties Served\*

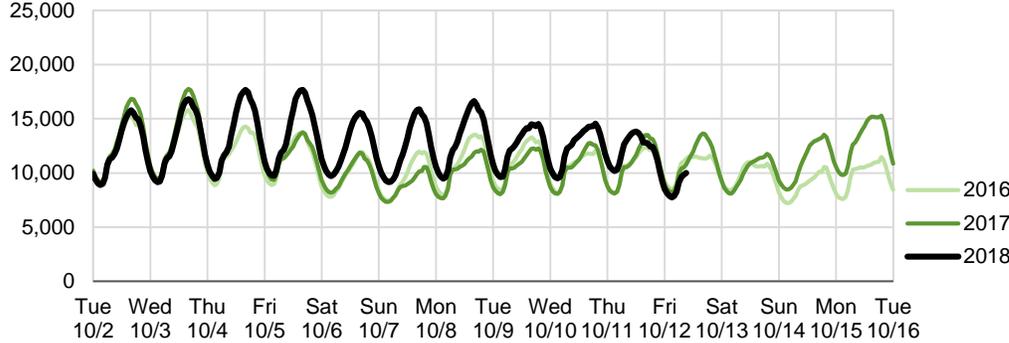
- Duke Energy Progress
- Duke Energy Carolinas
- Overlapping Territory
- ⊙ Shipping Port
- ⊙ Major Airport
- Interstate Highways
- State Highways

\*Portions may be served by other utilities.

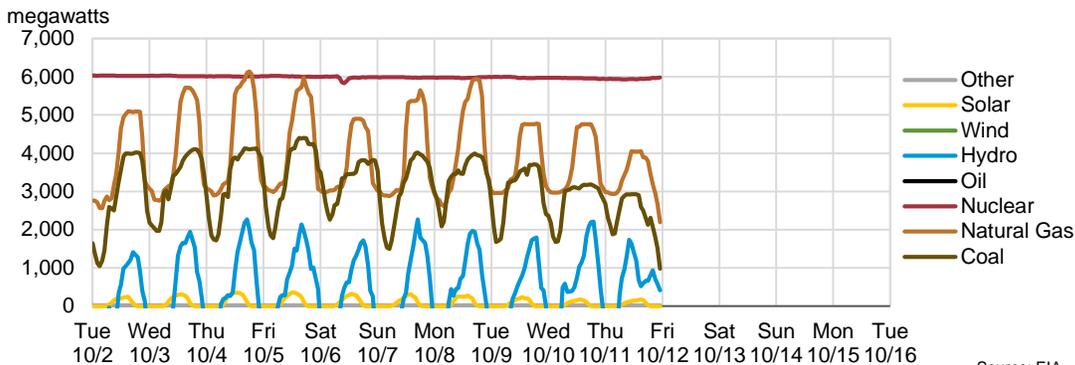
Source: Duke Energy

### Duke Energy Carolinas (DUK) electricity load, 2018 vs. past two years

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



### Duke Energy Carolinas (DUK) net generation by energy source



Source: EIA

### Duke Energy Carolinas (DUK) Balancing Authority

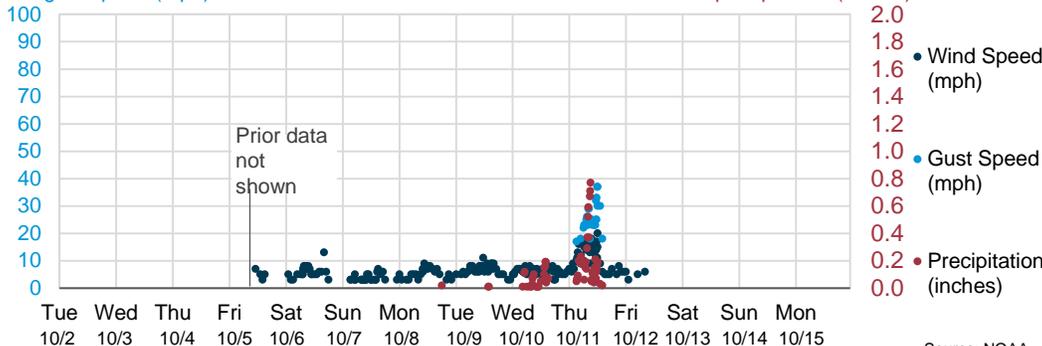
#### 2017 Total Number of Customers

- 2,639,107 in North Carolina  
51% of the state
- 940,763 in South Carolina  
36% of the state
- 394 in Georgia  
<1% of the state

Source: EIA

### Charlotte, North Carolina weather

wind & gust speed (mph)



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)
- Duke Energy Progress East (CPLE): [website](#), [Excel file](#) (includes generation by energy source)
- Duke Energy Carolinas (DUK): [website](#), [Excel file](#) (includes generation by energy source)
- **Weather data:** NOAA data for the cities and locations listed below:
  - Destin, FL: [Destin-Ft. Walton Beach Airport](#)
  - Pensacola, FL: [Pensacola Regional Airport](#)
  - Tallahassee, FL: [Tallahassee Regional Airport](#)
  - Perry, FL: [Perry-Foley Airport](#)
  - Wilmington, NC: [Wilmington International Airport](#)
  - Charlotte, NC: [Gastonia Municipal 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](#), North Carolina Department of Public Safety Hurricane Michael [outage report](#), and utility websites. Percentage outages calculated with customer counts from the [EIA-861](#) survey. 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.