

# EIA Hurricane Florence Electricity Status Report

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



## Saturday September 15, 2018 – AM Edition

- **Weather:** Tropical Storm Florence is centered 35 miles west of Myrtle Beach, SC and is moving west at 2 mph. Winds reaching 50 mph extend up to 175 miles from the center. Coastal areas have had up to 40 inches of rain, while inland areas have seen up to 10 inches. Heavy rainfall is expected to continue causing catastrophic flash and prolonged river flooding. Florence is expected to weaken to a tropical depression by tonight.
- **Electricity:** Loads continued to decrease substantially in the CPLE, SCEG, and SC balancing authority areas, reflecting area evacuations and outages. The declining load pattern in

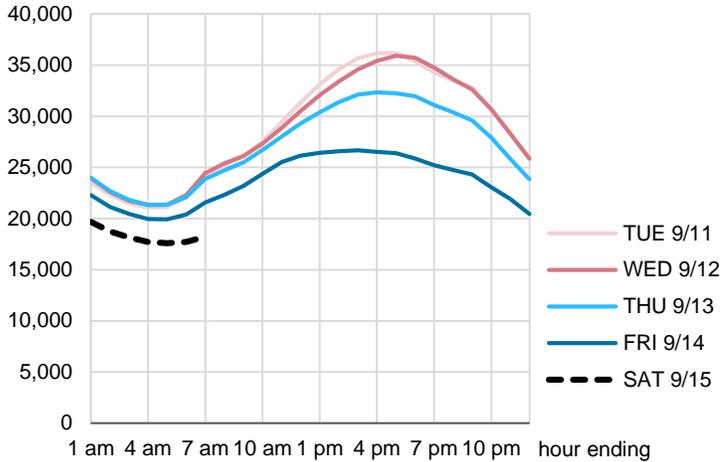
SCEG closely parallels the 2017 load decline caused by last year's Hurricane Irma (see p. 6). SC's revised load for yesterday (Friday) is much lower than initially reported.

- **Generators:** Around 8:00 p.m. yesterday, Duke Energy began reducing generation at its McGuire nuclear plant (see p. 4) for planned maintenance unrelated to Florence.
- **Customers:** As of 8:30 a.m., about 813,500 customers in North Carolina and 95,000 customers in South Carolina have reported electricity outages, roughly 16% and 4% of the customers in the states, respectively.

## REGIONAL OVERVIEW

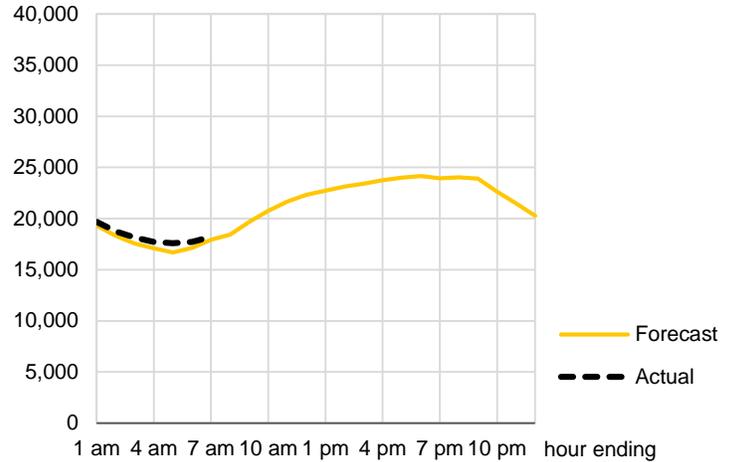
### North & South Carolina region electricity load current day vs. past 4 days

megawatts



### North & South Carolina region electricity load current day actual vs. forecast

megawatts

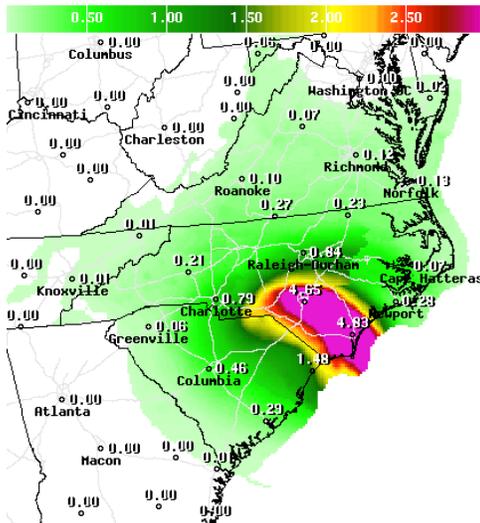


## WEATHER PROJECTIONS

### Precipitation

inches

6 hr period ending Sat Sep 15 at 2 pm EDT



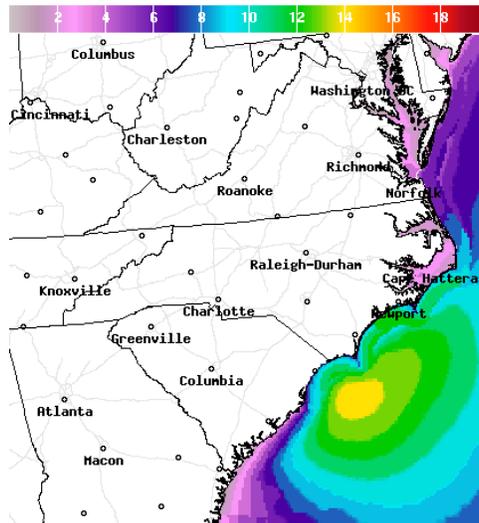
6Hr Precip.Amt(in) Ending Sat Sep 15 2018 2PM EDT (Sat Sep 15 2018 18Z)



### Wave Height

feet

for Sat Sep 15 at 2 pm EDT



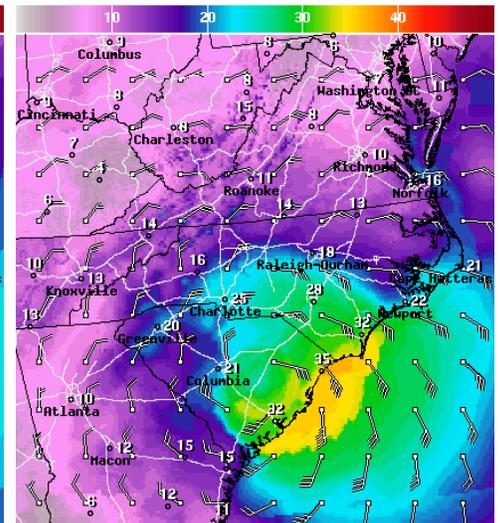
Wave Height(ft) Ending Sat Sep 15 2018 2PM EDT (Sat Sep 15 2018 18Z)



### Wind Speed & Direction

knots (1 knot = 1.15 mph)

for Sat Sep 15 at 2 pm EDT



WindSpd(Kts) & WindDir For Sat Sep 15 2018 2PM EDT (Sat Sep 15 2018 18Z)



Source: NOAA

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

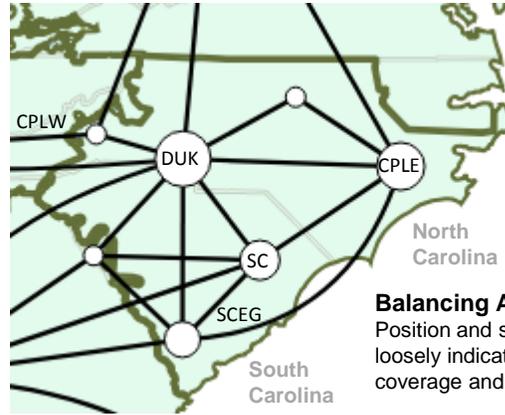
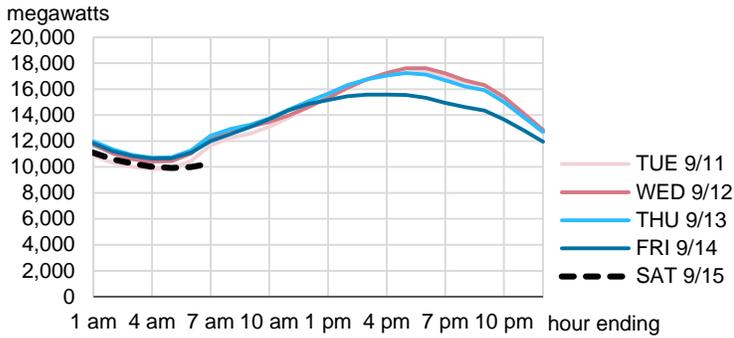
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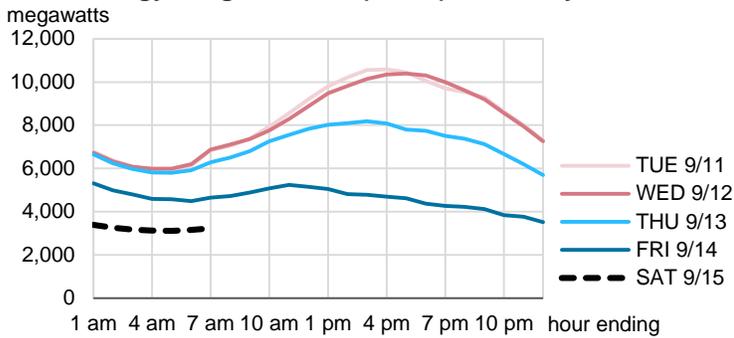


## BALANCING AUTHORITY OVERVIEW

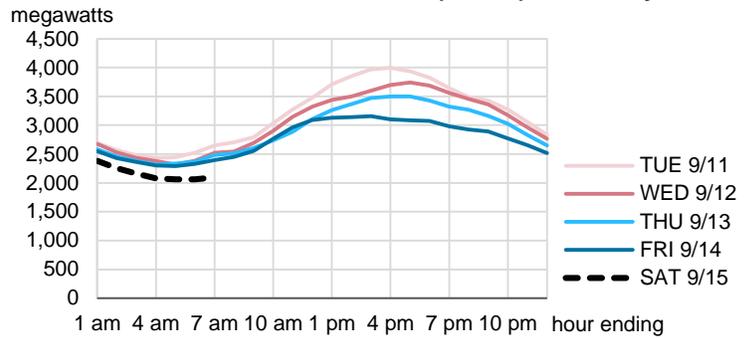
### Duke Energy Carolinas (DUK) electricity load



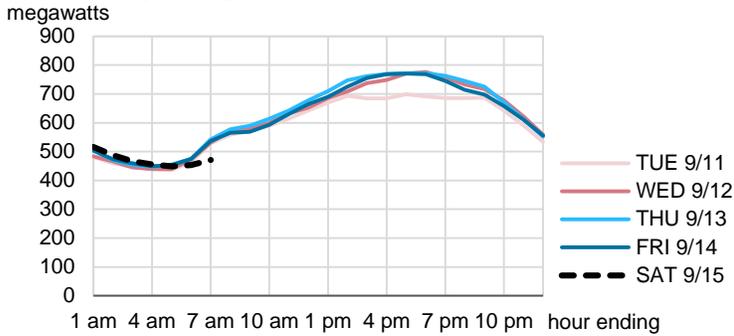
### Duke Energy Progress East (CPLE) electricity load



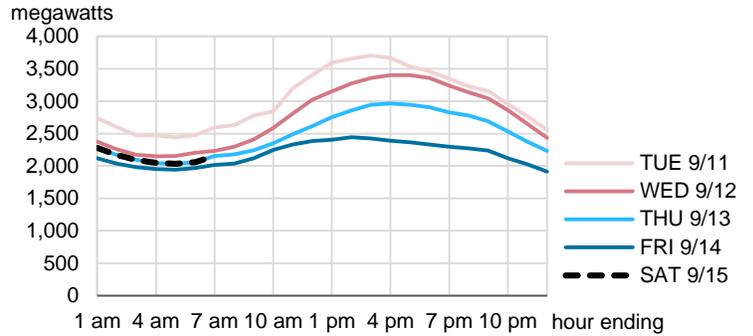
### South Carolina Electric & Gas Co (SCEG) electricity load



### Duke Energy Progress West (CPLW) electricity load

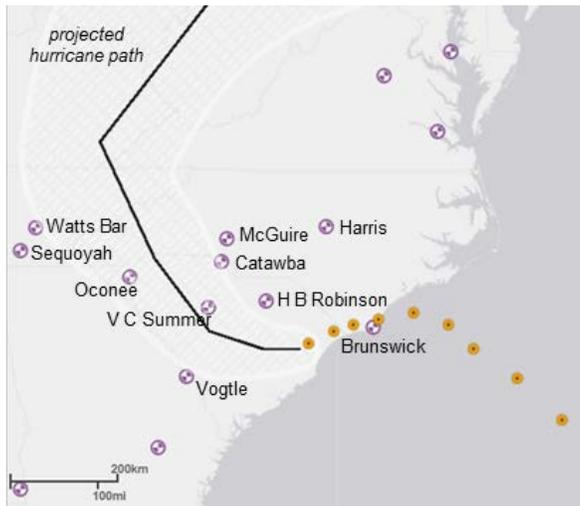


### Santee Cooper/SC Public Service Auth. (SC) electricity load



Source: EIA

## NUCLEAR PLANTS & AVAILABILITY



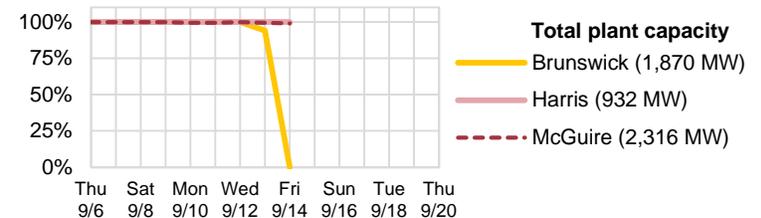
Data through 6 am

Source: EIA

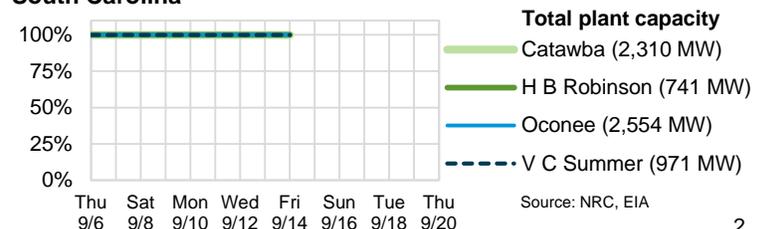
### Daily snapshot of nuclear plant availability

percent of total plant capacity

#### North Carolina



#### South Carolina



Source: NRC, EIA

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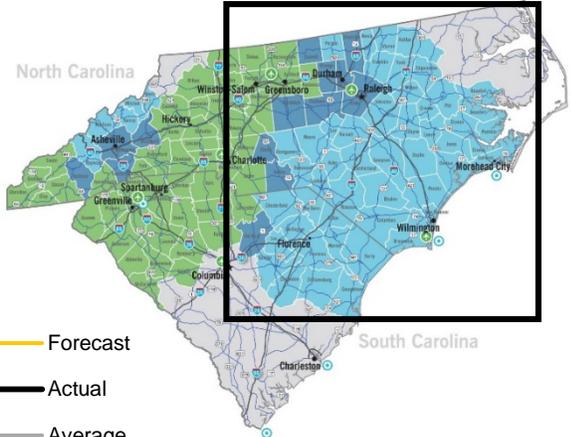
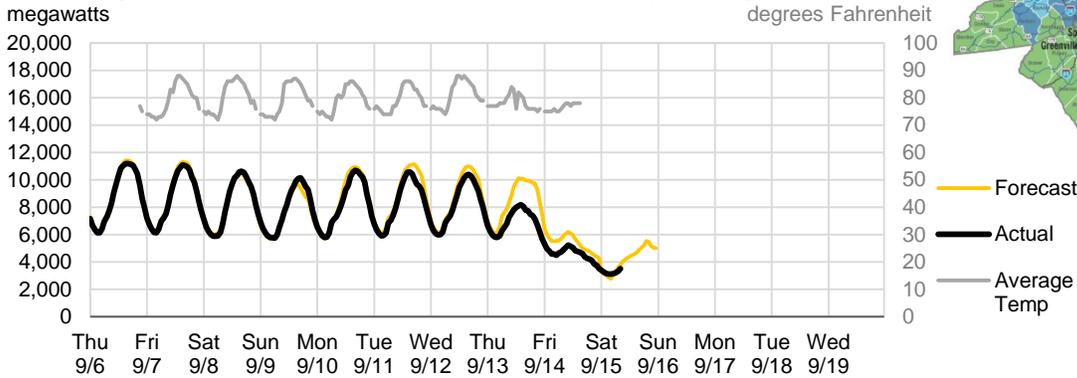
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## DUKE ENERGY PROGRESS EAST (CPLE)

Current electricity load data through hour ending 7 am

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



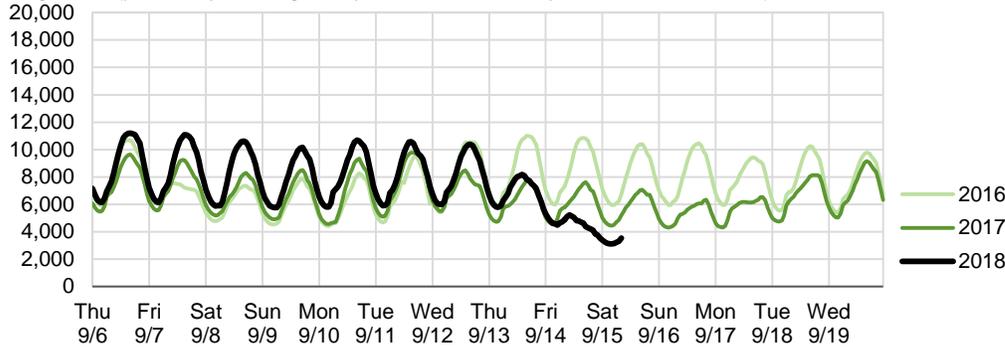
**Service Territory**  
Counties Served\*

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

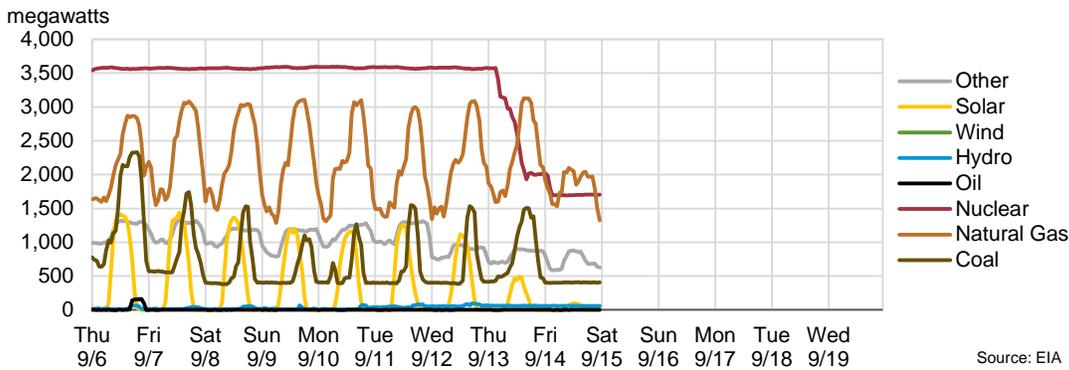
\*Portions may be served by other utilities.

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



**Duke Energy Progress East (CPLE) & Duke Energy Progress West (CPLE) Balancing Authorities' Combined Total Customers**

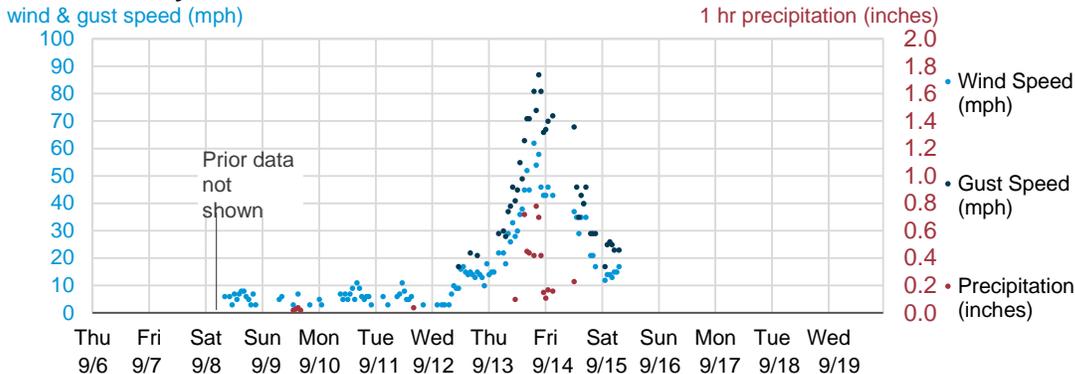
2,302,785 customers, 44% of all customers in North Carolina

179,577 customers, 7% of all customers in South Carolina

1,017 customers in Tennessee

Source: EIA

### Morehead City, North Carolina weather



Source: NOAA

# EIA Hurricane Florence Electricity Status Report

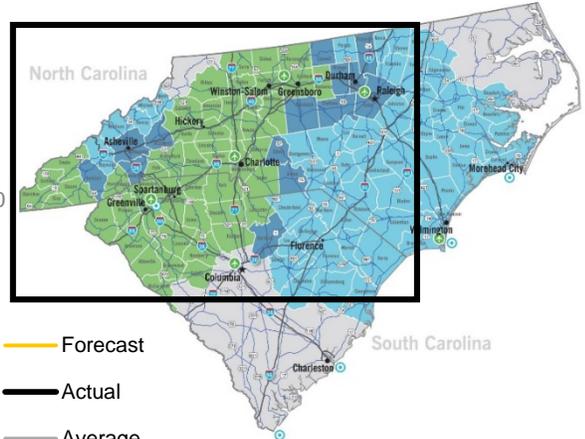
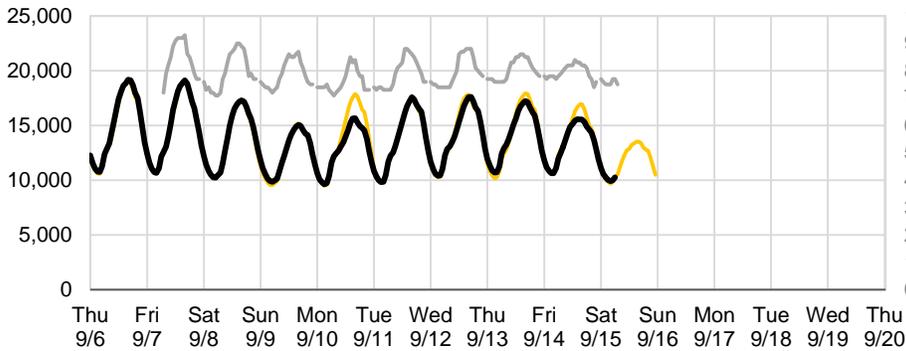
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## DUKE ENERGY CAROLINAS (DUK)

Current electricity load data through hour ending 7 am

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



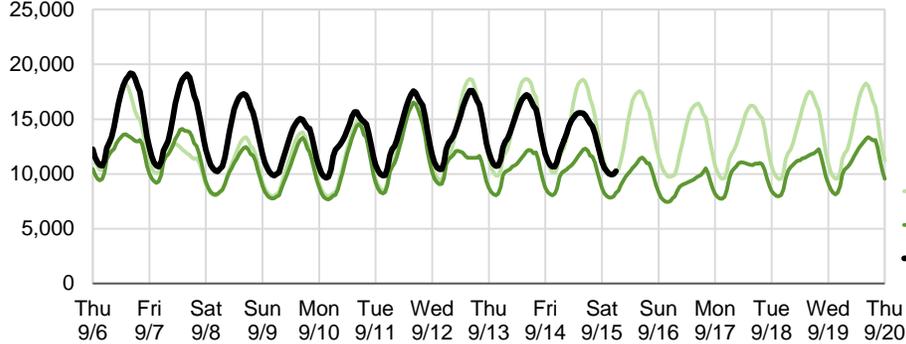
**Service Territory  
Counties Served\***

- Duke Energy Progress
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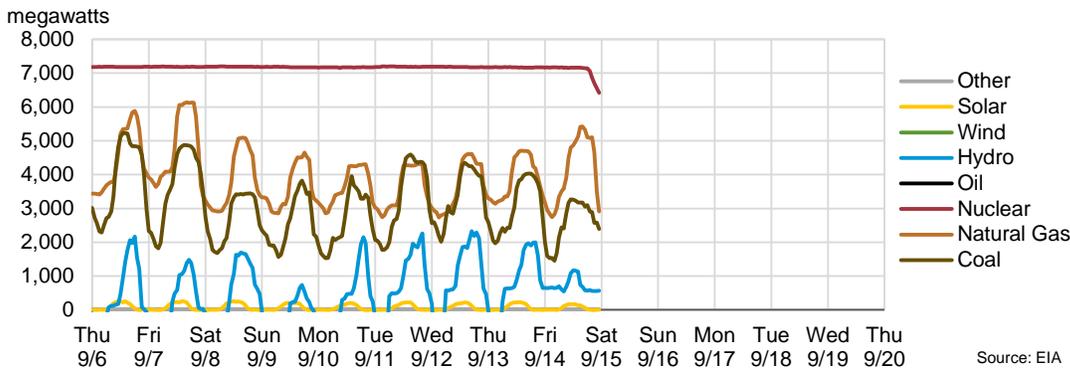
\*Portions may be served by other utilities.

Source: Duke Energy

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



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



**Duke Energy Carolinas (DUK)  
Balancing Authority  
Total Customers**

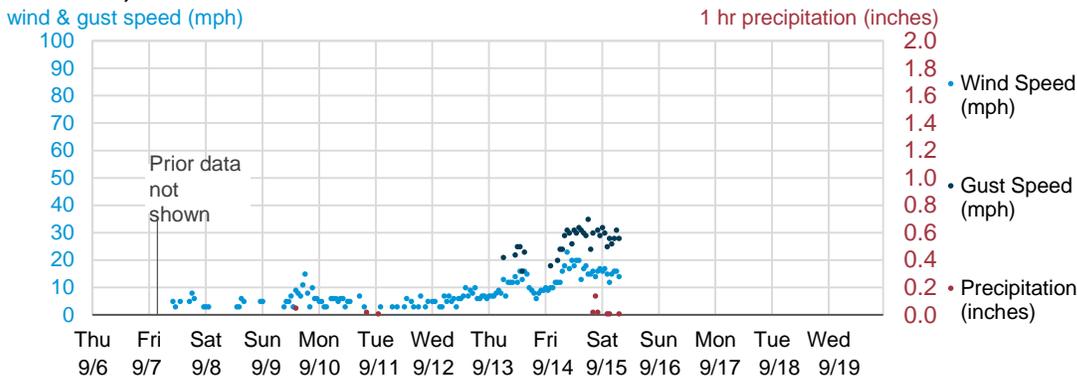
2,639,107 customers, 51% of all customers in North Carolina

940,763 customers, 36% of all customers in South Carolina

394 customers in Georgia

Source: EIA

### Charlotte, North Carolina weather



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## DUKE ENERGY PROGRESS WEST (CPLW)

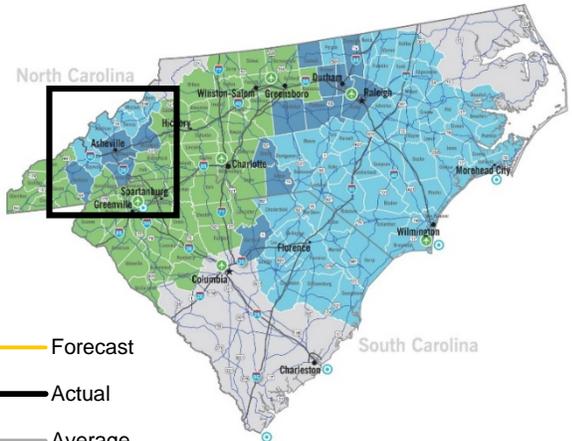
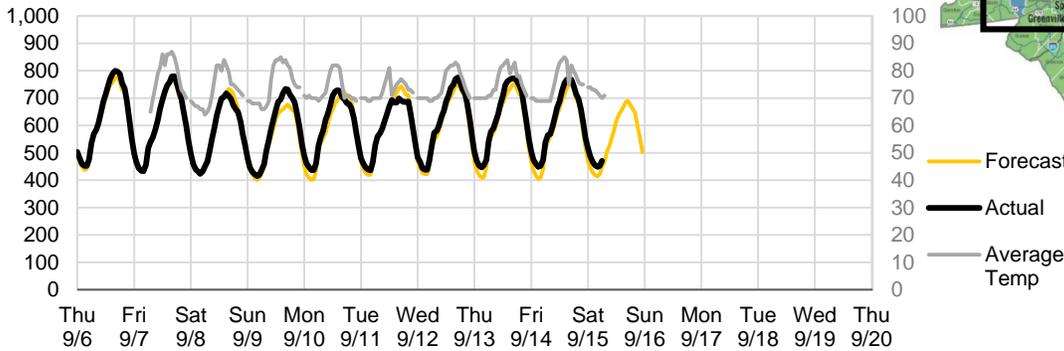
Current electricity load data through hour ending 7 am

### Duke Energy Progress West (CPLW) Electricity load, actual vs. forecast

megawatts

### Asheville, North Carolina Hourly average temperature

degrees Fahrenheit



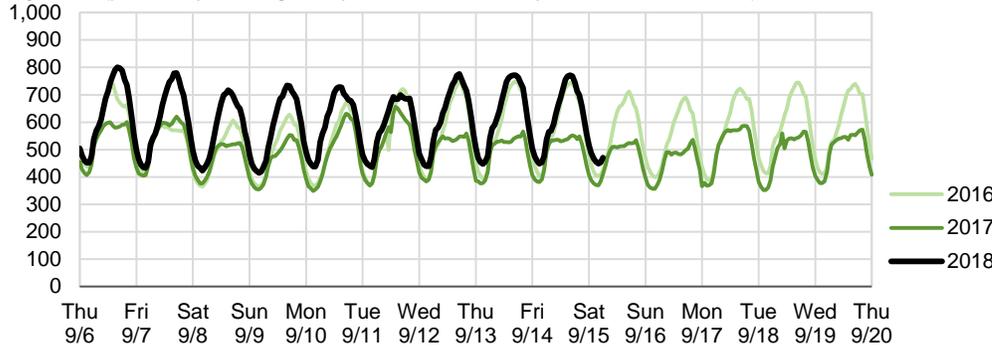
**Service Territory**  
Counties Served\*

- 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

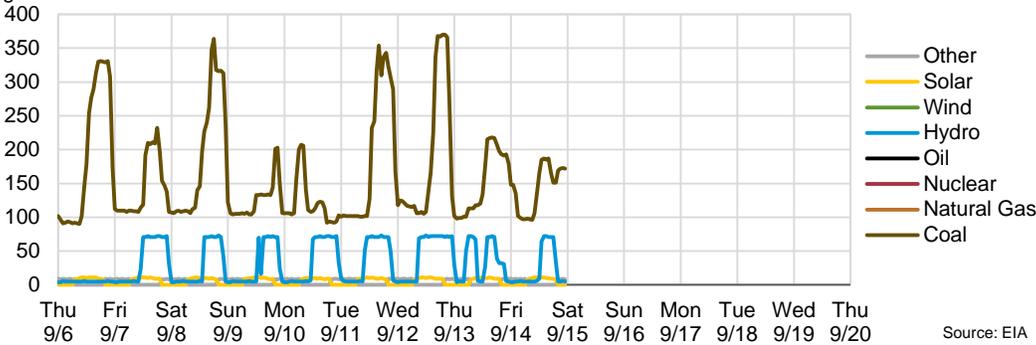
### Duke Energy Progress West (CPLW) electricity load, 2018 vs. past two years

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



### Duke Energy Progress West (CPLW) net generation by energy source

megawatts



**Duke Energy Progress East (CPLE) & Duke Energy Progress West (CPLE) Balancing Authorities' Combined Total Customers**

2,302,785 customers, 44% of all customers in North Carolina

179,577 customers, 7% of all customers in South Carolina

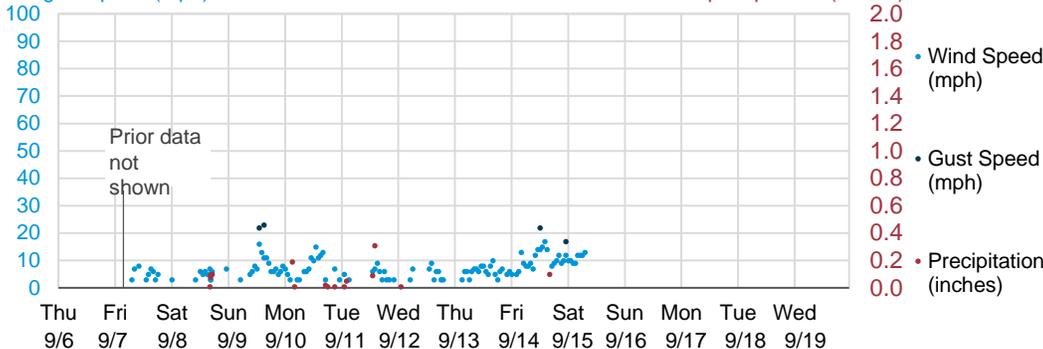
1,017 customers in Tennessee

Source: EIA

### Asheville, North Carolina weather

wind & gust speed (mph)

1 hr precipitation (inches)



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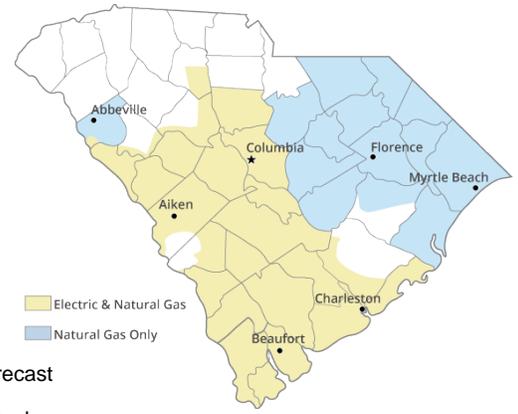
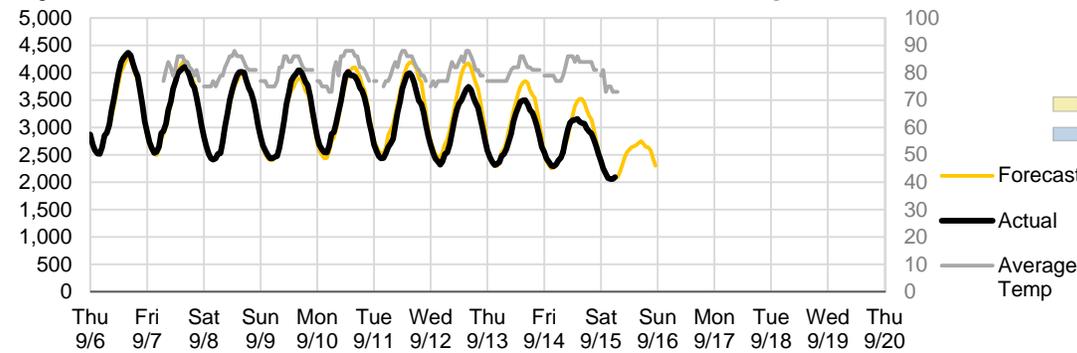
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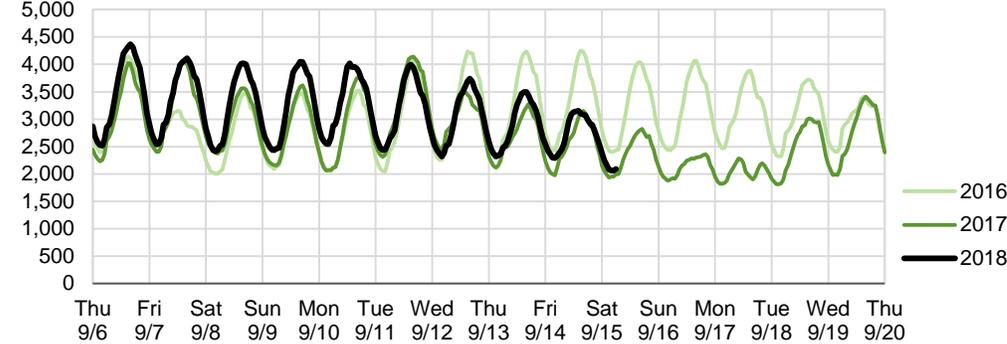
## SOUTH CAROLINA ELECTRIC & GAS (SCEG)

Current electricity load data through hour ending 7 am

### South Carolina Electric & Gas Co (SCEG) Electricity load, actual vs. forecast



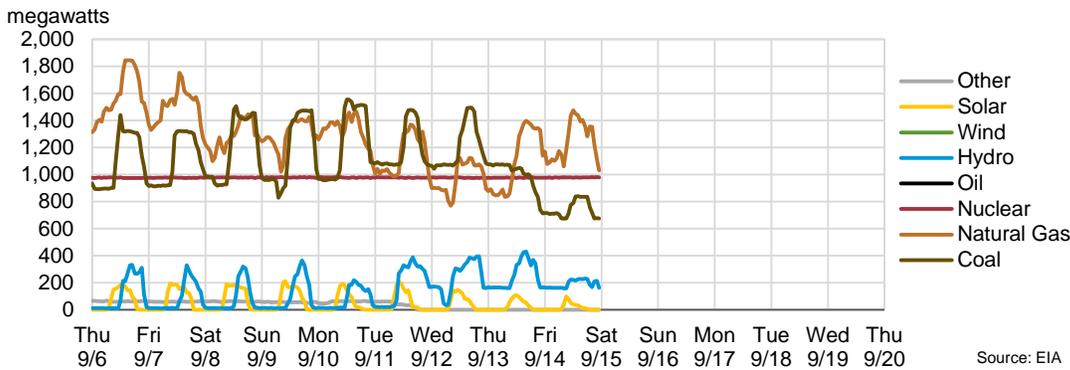
### South Carolina Electric & Gas Co (SCEG) electricity load, 2018 vs. past two years



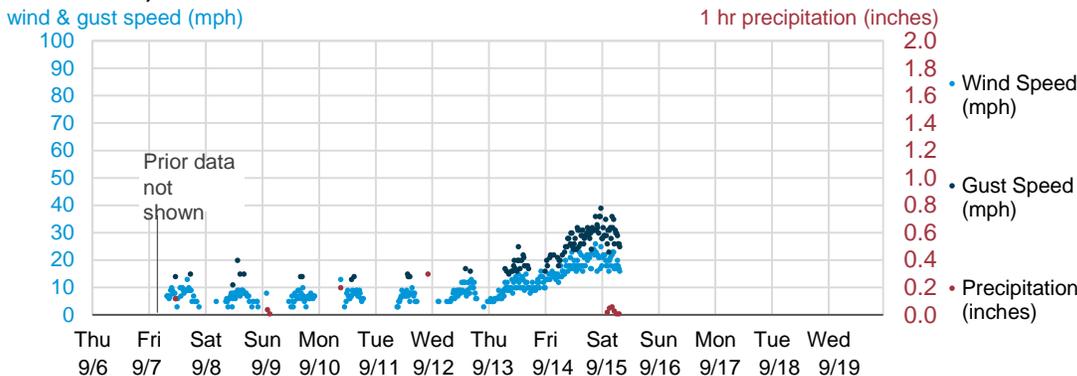
**South Carolina Electric & Gas (SCEG) Balancing Authority Total Customers**  
746,512 customers, 28% of all customers in South Carolina

Source: EIA

### South Carolina Electric & Gas Co (SCEG) net generation by energy source



### Charleston, South Carolina weather



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## SANTEE COOPER/SC PUBLIC SERVICE AUTHORITY (SC)

Current electricity load data through hour ending 7 am

### Santee Cooper (SC)

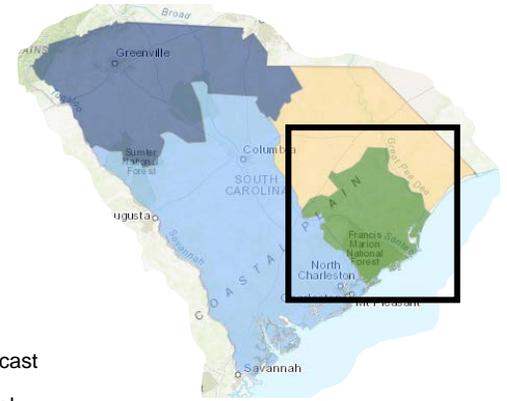
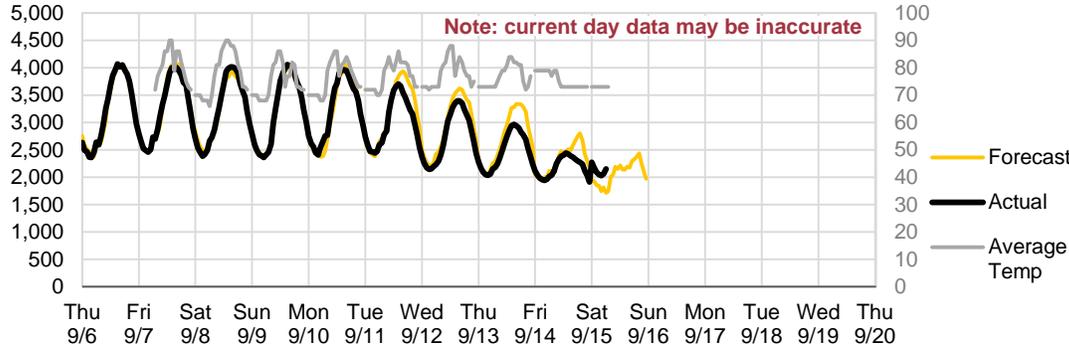
#### Electricity load, actual vs. forecast

megawatts

### Myrtle Beach, South Carolina

#### Hourly average temperature

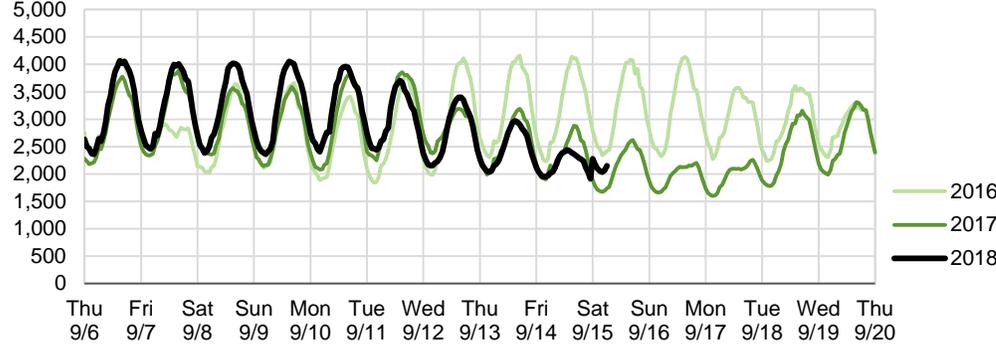
degrees Fahrenheit



Source: SCEMD

### Santee Cooper (SC) electricity load, 2018 vs. past two years

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



### Santee Cooper (SC)

#### Balancing Authority

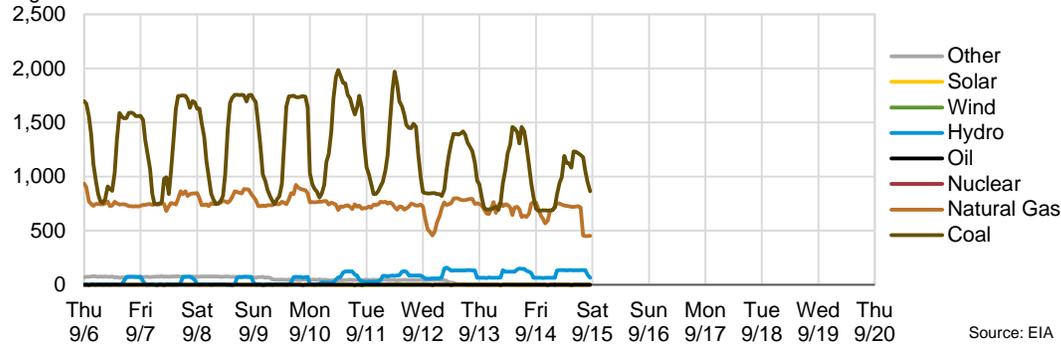
#### Total Customers

766,021 customers, 29% of all customers in South Carolina

Source: EIA

### Santee Cooper (SC) net generation by energy source

megawatts

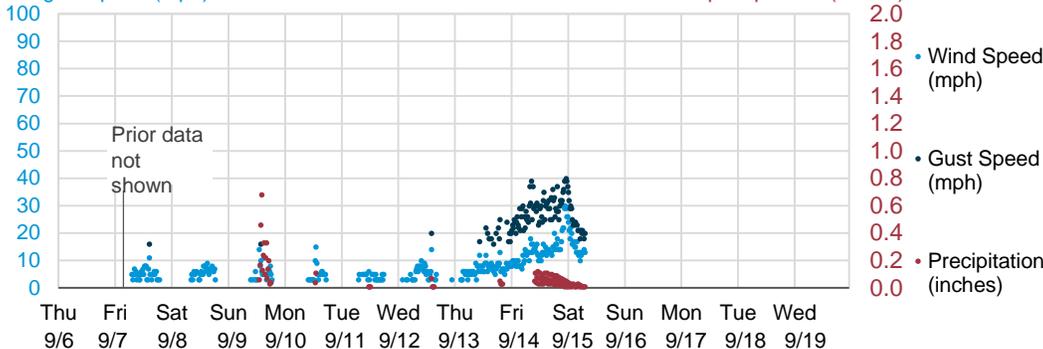


Source: EIA

### Myrtle Beach, South Carolina 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) 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.

Balancing authorities 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 Duke Energy Progress East (CPL) balancing authority in North Carolina is responsible for balancing the grid in an area that extends beyond the Duke utility service territory.

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:

- Duke Energy Carolinas (DUK): [website](#), [Excel file](#) (includes generation by energy source)
- Duke Energy Progress East (CPL): [website](#), [Excel file](#) (includes generation by energy source)
- Duke Energy Progress West (CPLW): [website](#), [Excel file](#) (includes generation by energy source)
- Santee Cooper/South Carolina Public Service Authority (SC): [website](#), [Excel file](#) (includes generation by energy source)
- South Carolina Electric & Gas Company (SCEG): [website](#), [Excel file](#) (includes generation by energy source)
- **Weather data:** NOAA data for the cities and locations listed below:
  - Wilmington, NC: [Wilmington International Airport](#)
  - Morehead City, NC: [Cherry Point Marine Corps Air Station](#)
  - Charlotte, NC: [Gastonia Municipal Airport](#)
  - Asheville, NC: [Asheville Regional Airport](#)
  - Charleston, SC: [Charleston Executive Airport](#)
  - Myrtle Beach, SC: [Conway Horry County Airport](#)
- **Nuclear plant outages:** Nuclear Regulatory Commission daily status reports, 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:** [poweroutage.us](#), utility websites, and the [North Carolina Public Utility Commission](#). 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.