

EIA Hurricane Florence Electricity Status Report

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

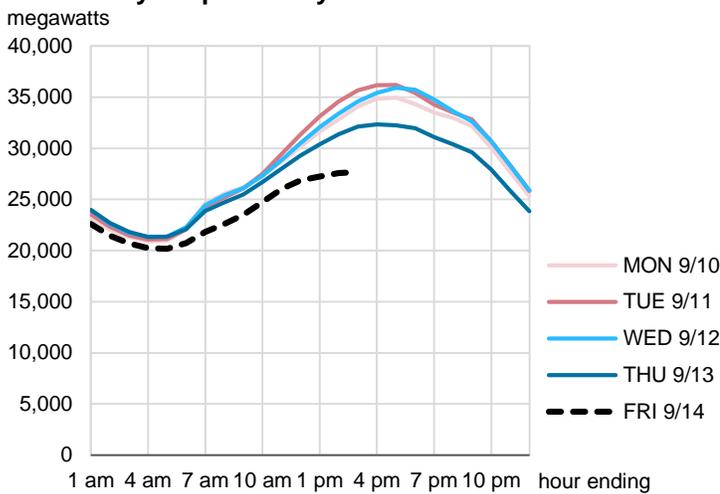


Friday September 14, 2018 – PM Edition

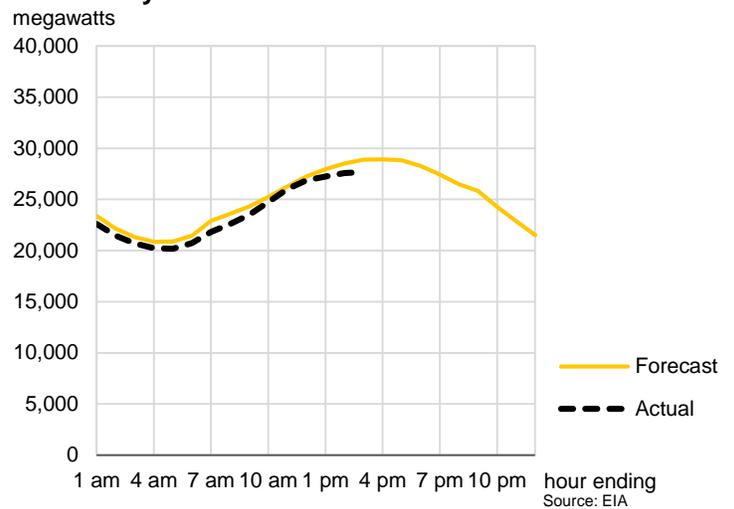
- Weather:** Hurricane Florence was downgraded to a tropical storm, now located 50 miles west of Wilmington, North Carolina and moving westward at 3 miles per hour (mph). Maximum sustained winds are about 70 mph. Heavy rainfall in the region's coastal area is causing catastrophic flooding.
- Electricity:** Electricity loads have decreased substantially in the Duke Energy Progress East (CPLE) balancing authority area over the past two days. The decrease reflects area evacuations and outages. CPLE's peak load today is about half the peak load at the start of the week.
- Generators:** The Brunswick nuclear plant located just south of Wilmington on the North Carolina coast shut down yesterday in preparation for hurricane-force winds.
- Customers:** As of 4:30 p.m., about 664,500 customers in North Carolina and 95,000 customers in South Carolina have reported electricity outages, roughly 13% and 4% of the customers in the states, respectively.

REGIONAL OVERVIEW

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



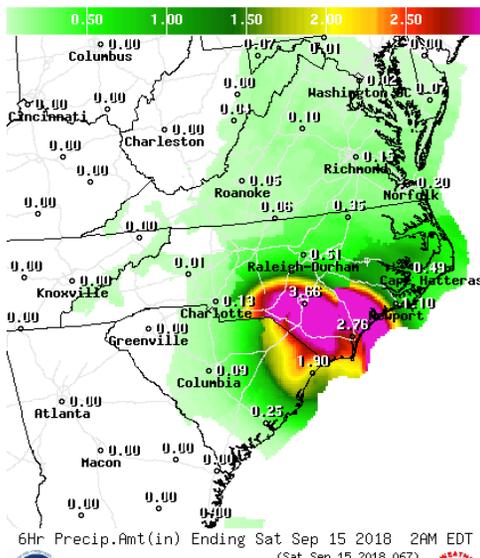
North & South Carolina region electricity load current day actual vs. forecast



WEATHER PROJECTIONS

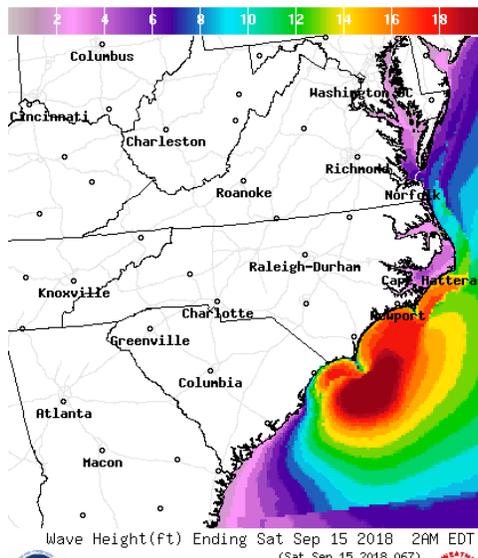
Precipitation

inches
6 hr period ending Sat Sep 15 at 2 am EDT



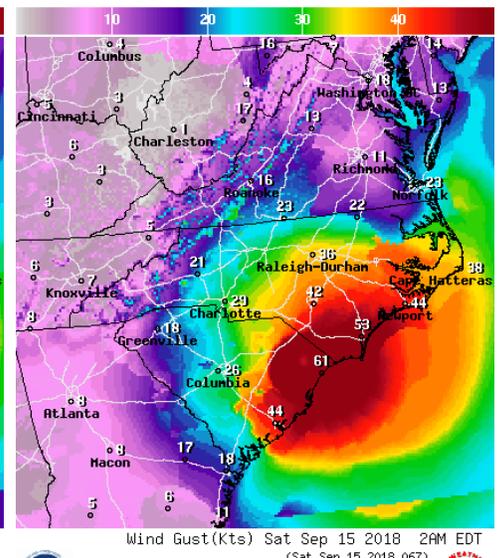
Wave Height

feet
for Sat Sep 15 at 2 am EDT



Wind Speed & Direction

knots (1 knot = 1.15 mph)
for Sat Sep 15 at 2 am EDT



National Digital Forecast Database
19z issuance Graphic created-Sep 14 3:47PM EDT

National Digital Forecast Database
20z issuance Graphic created-Sep 14 4:31PM EDT

National Digital Forecast Database
20z issuance Graphic created-Sep 14 4:47PM EDT

Source: NOAA

Send questions or comments about this report to infoelectric@eia.gov.

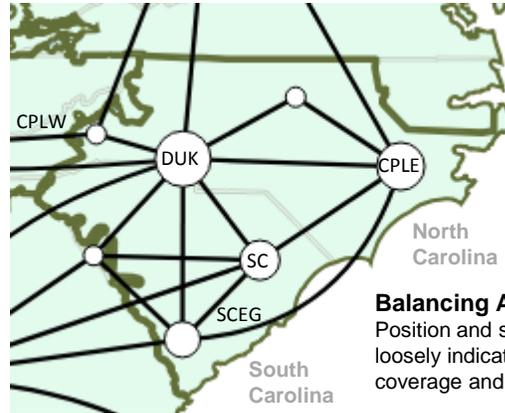
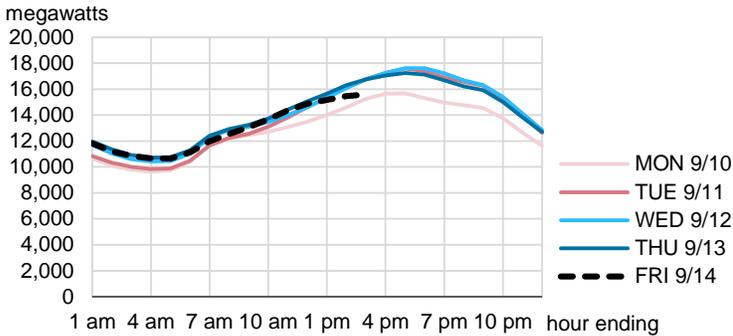
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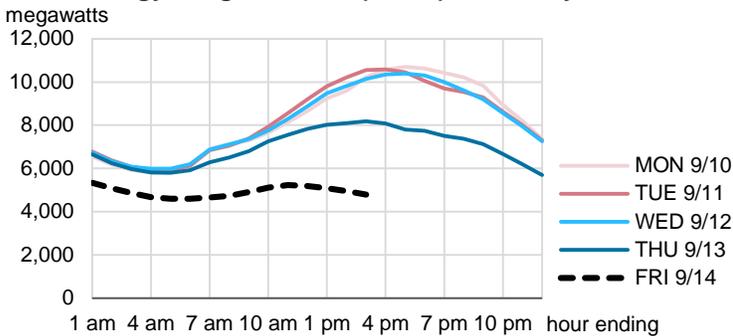


BALANCING AUTHORITY OVERVIEW

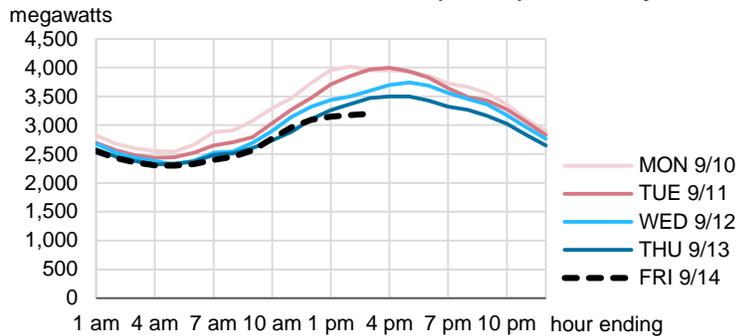
Duke Energy Carolinas (DUK) electricity load



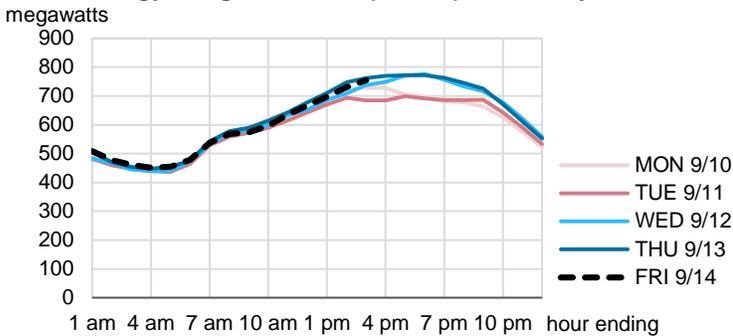
Duke Energy Progress East (CPLE) electricity load



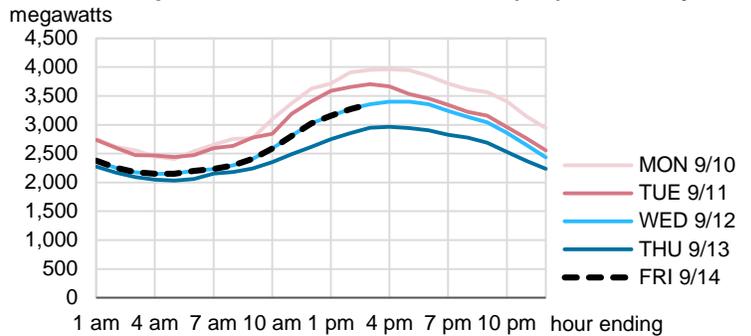
South Carolina Electric & Gas Co (SCEG) electricity load



Duke Energy Progress West (CPLW) electricity load

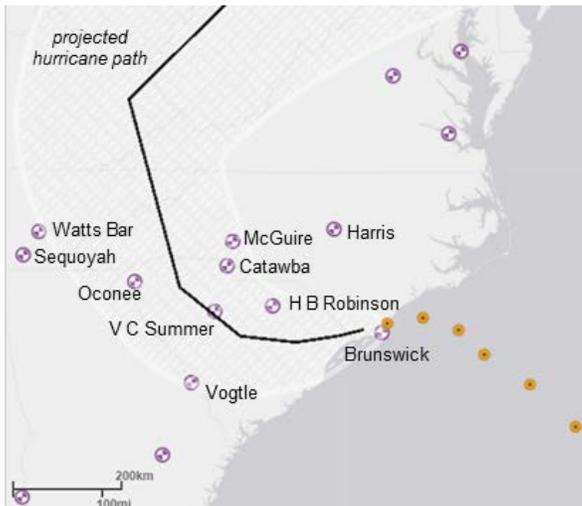


Santee Cooper/SC Public Service Auth. (SC) electricity load



Source: EIA

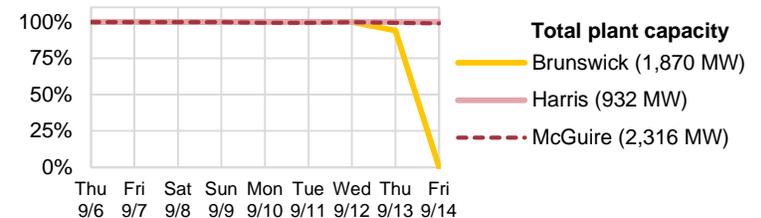
NUCLEAR PLANTS & AVAILABILITY



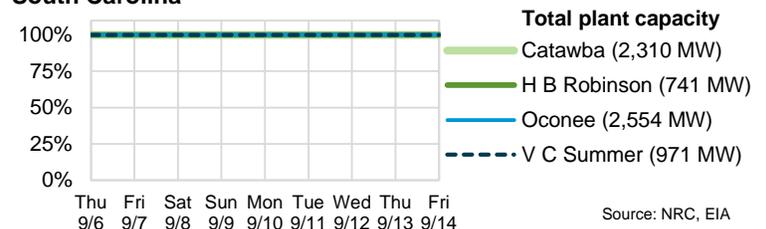
Daily snapshot of nuclear plant availability

percent of total plant capacity

North Carolina



South Carolina



Source: NRC, EIA

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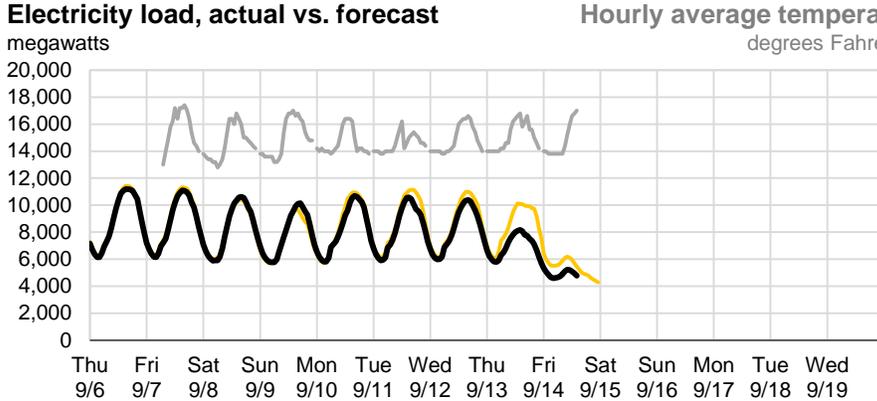
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DUKE ENERGY PROGRESS EAST (CPLE)

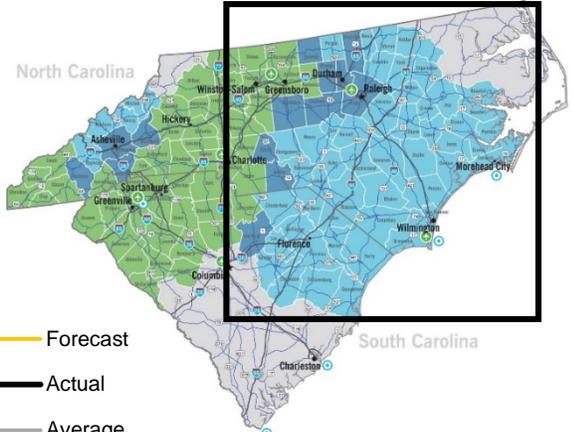
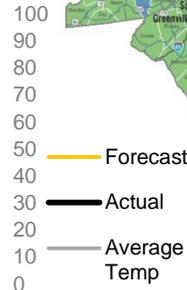
Current electricity load data through hour ending 3 pm

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



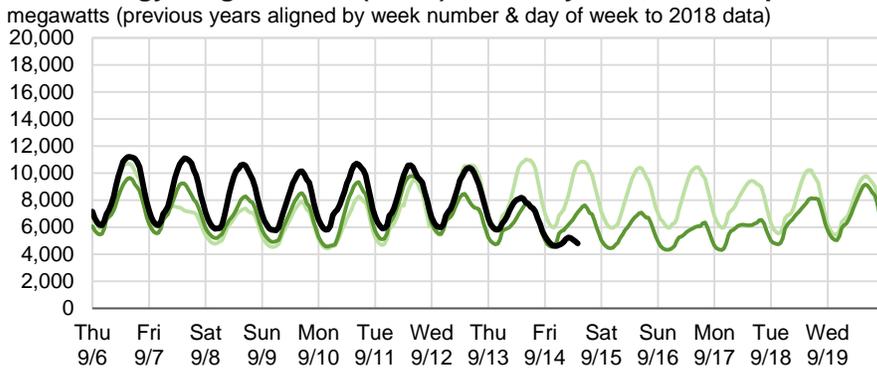
Wilmington, North Carolina Hourly average temperature

degrees Fahrenheit

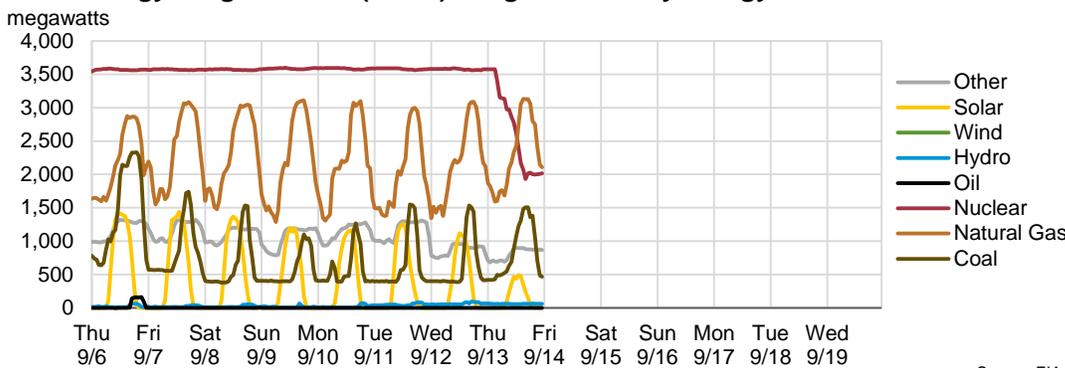


Source: Duke Energy

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



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

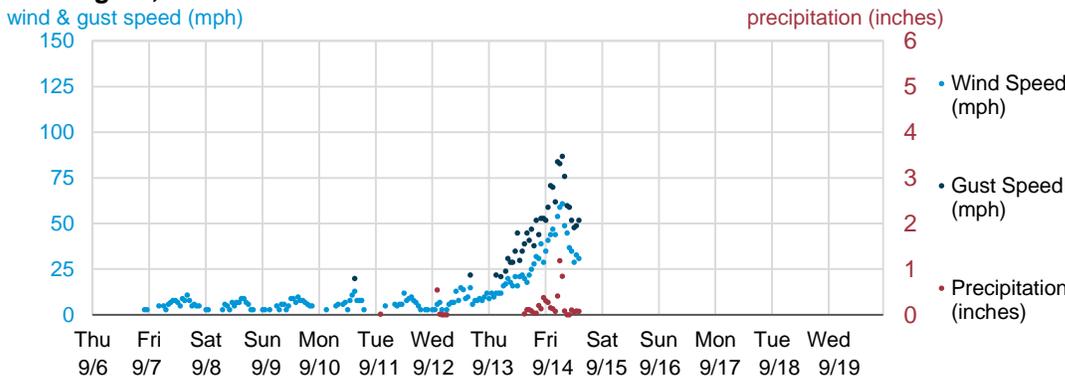


Source: EIA

Duke Energy Progress East (CPLE) & Duke Energy Progress West (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

Wilmington, North Carolina weather



Source: NOAA

EIA Hurricane Florence Electricity Status Report

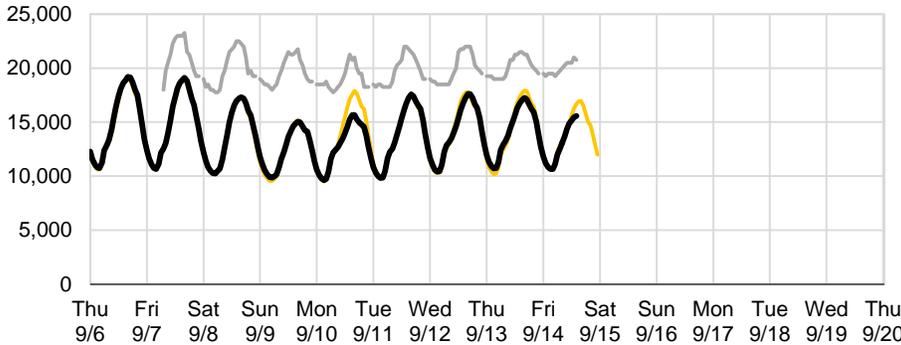
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DUKE ENERGY CAROLINAS (DUK)

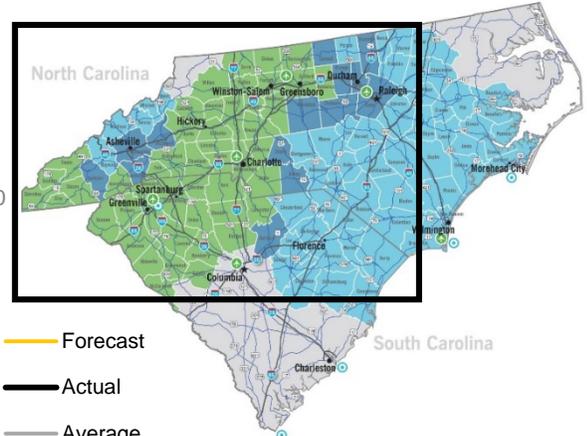
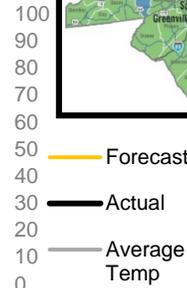
Current electricity load data through hour ending 3 pm

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



Charlotte, North Carolina Hourly average temperature

degrees Fahrenheit



Service Territory Counties Served*

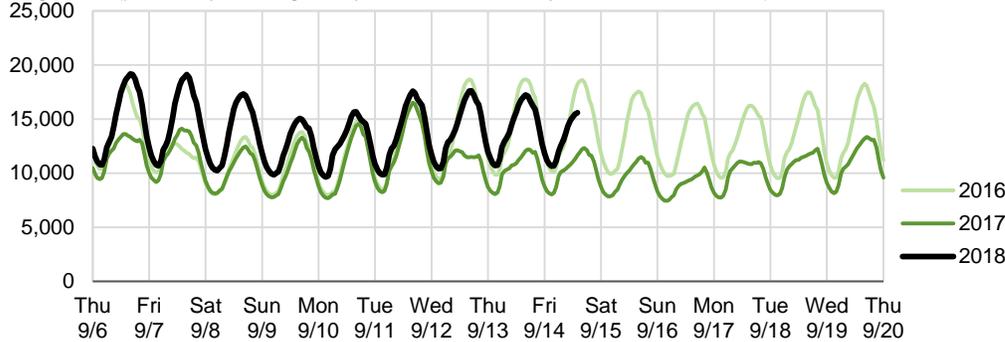
- Duke Energy Progress
- Duke Energy Carolinas
- Overlapping Territory
- Shipping Port
- Major Airport
- Interstate Highways
- State Highways

*Portions may be served by other utilities.

Source: Duke Energy

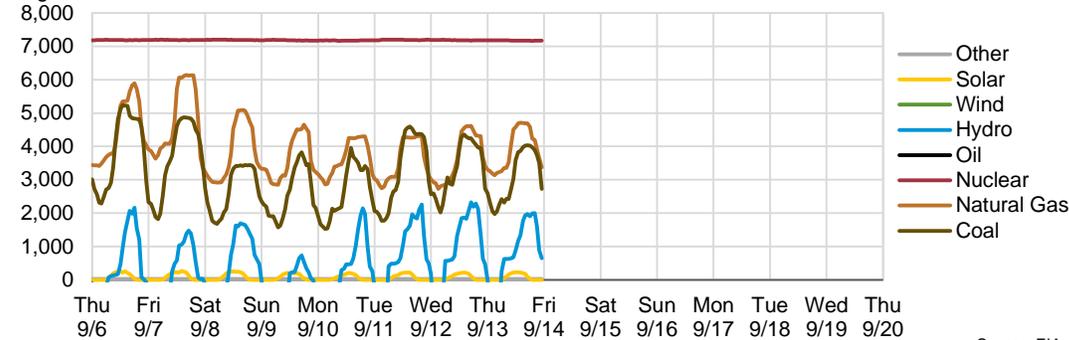
Duke Energy Carolinas (DUK) electricity load, 2018 vs. past two years

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



Duke Energy Carolinas (DUK) net generation by energy source

megawatts



Source: EIA

Duke Energy Carolinas (DUK) Balancing Authority Total Customers

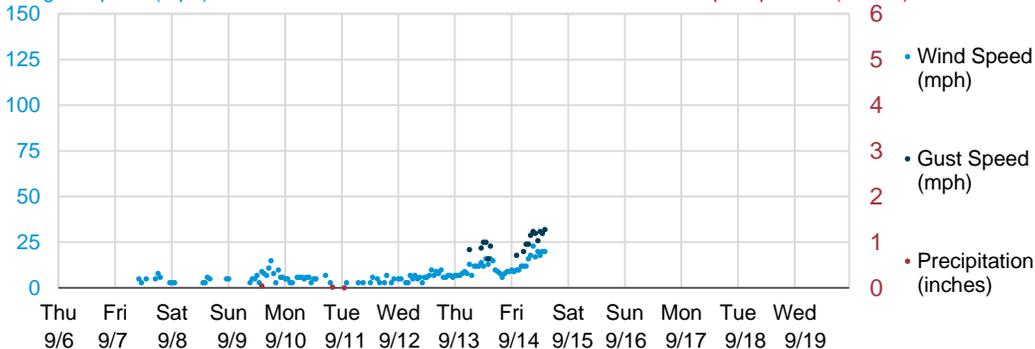
2,639,107 customers, 51% of all customers in North Carolina
940,763 customers, 36% of all customers in South Carolina
394 customers in Georgia

Source: EIA

Charlotte, North Carolina weather

wind & gust speed (mph)

precipitation (inches)



Source: NOAA

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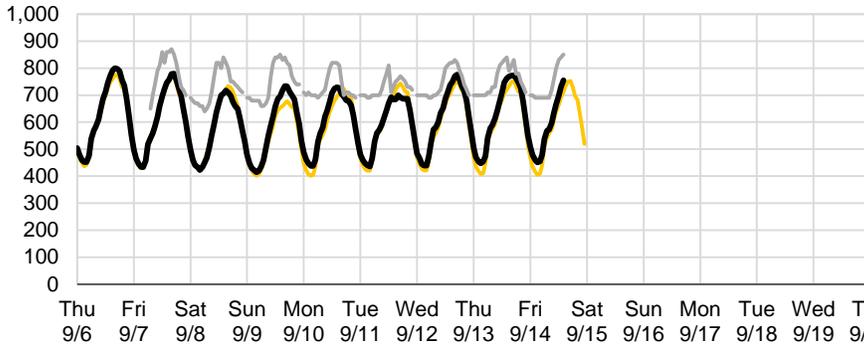
DUKE ENERGY PROGRESS WEST (CPLW)

Current electricity load data through hour ending 3 pm

Duke Energy Progress West (CPLW)

Electricity load, actual vs. forecast

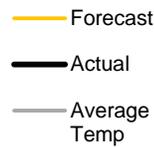
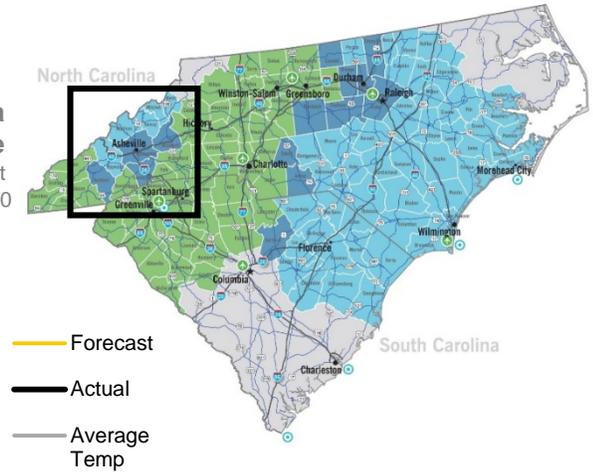
megawatts



Asheville, North Carolina

Hourly average temperature

degrees Fahrenheit



Service Territory
Counties Served*

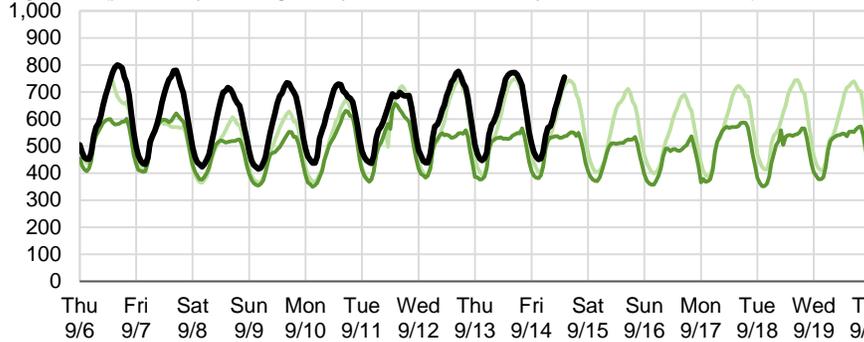
- Duke Energy Progress
- Duke Energy Carolinas
- Overlapping Territory
- Shipping Port
- Major Airport
- Interstate Highways
- State Highways

*Portions may be served by other utilities.

Source: Duke Energy

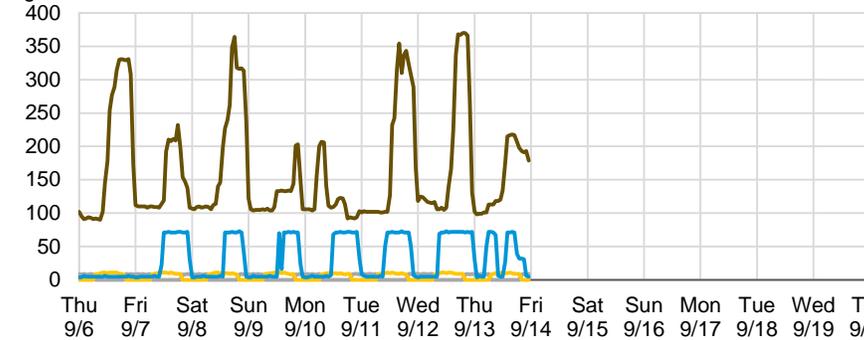
Duke Energy Progress West (CPLW) electricity load, 2018 vs. past two years

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



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

megawatts



Source: EIA

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

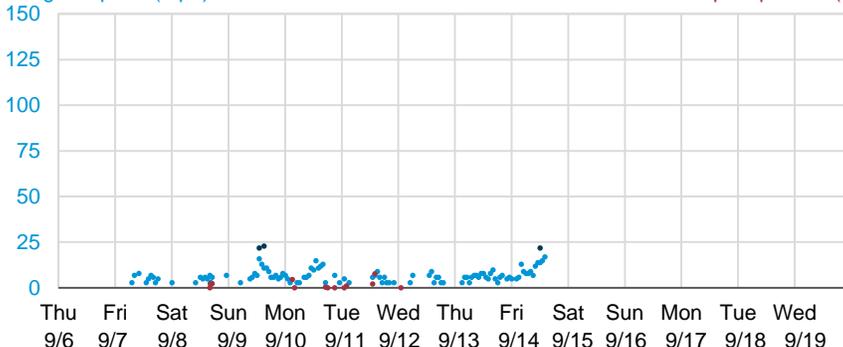
1,017 customers in Tennessee

Source: EIA

Asheville, North Carolina weather

wind & gust speed (mph)

precipitation (inches)



Source: NOAA

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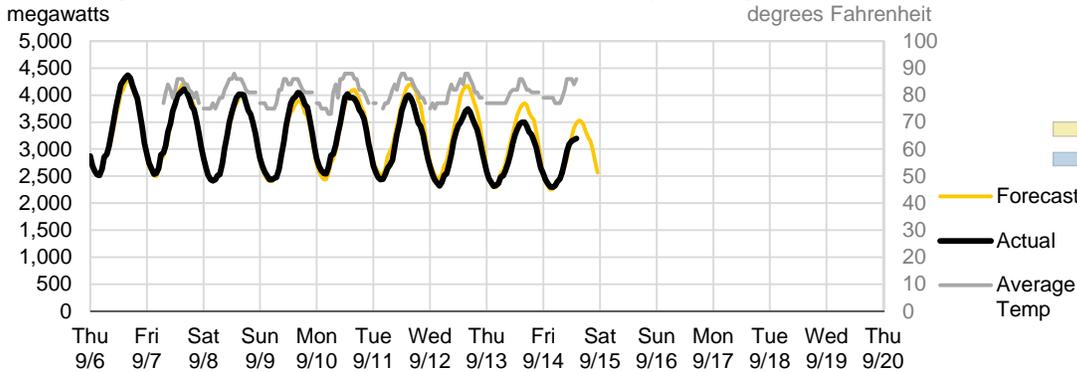
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SOUTH CAROLINA ELECTRIC & GAS (SCEG)

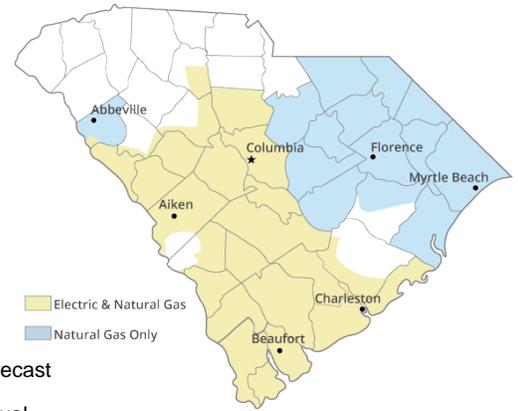
Current electricity load data through hour ending 3 pm

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



Charleston, South Carolina Hourly average temperature

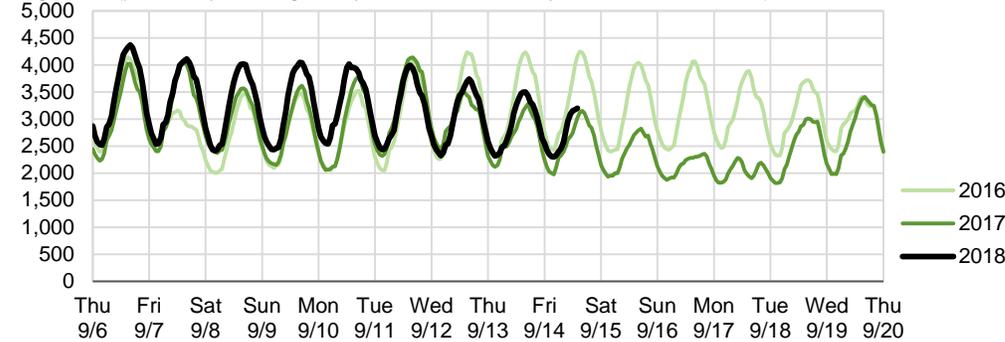
degrees Fahrenheit



Source: SCEG

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

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

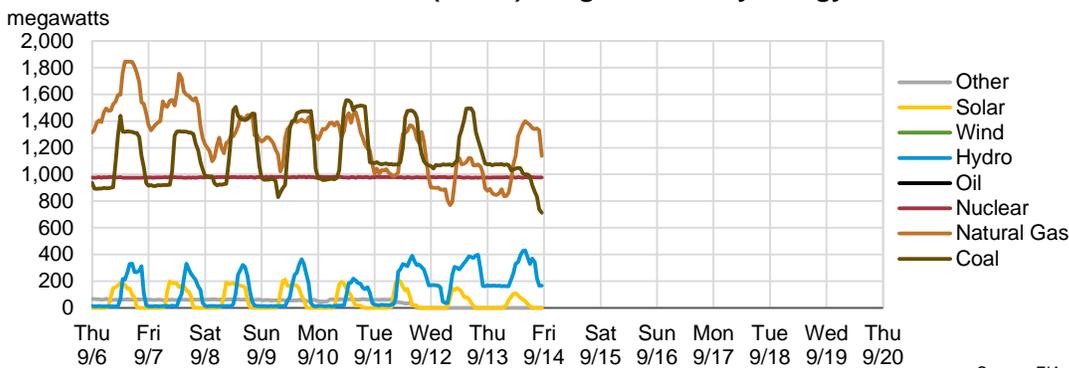


South Carolina Electric & Gas (SCEG) Balancing Authority Total Customers

746,512 customers, 28% of all customers in South Carolina

Source: EIA

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

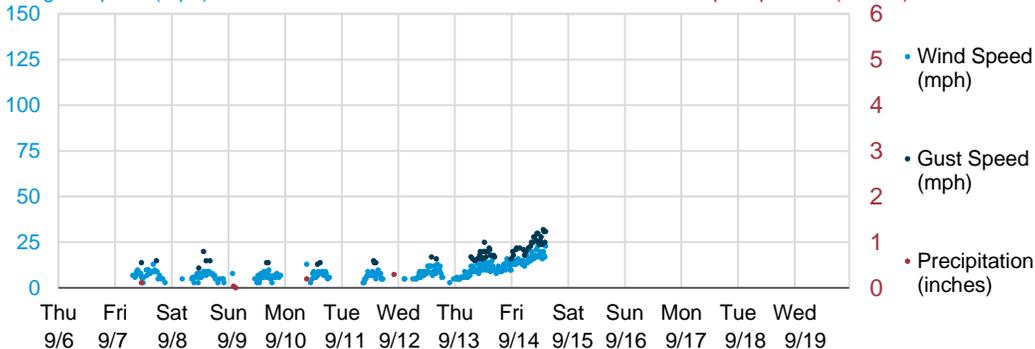


Source: EIA

Charleston, South Carolina weather

wind & gust speed (mph)

precipitation (inches)



Source: NOAA

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Santee Cooper/SC Public Service Authority (SC)

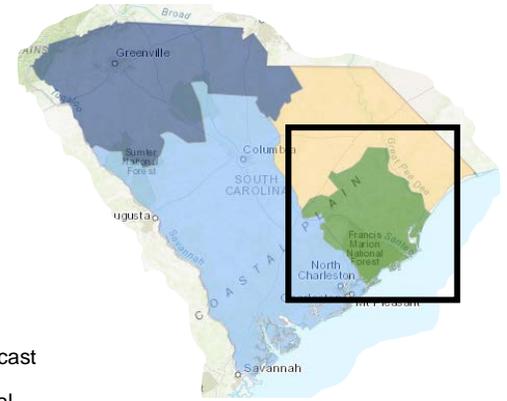
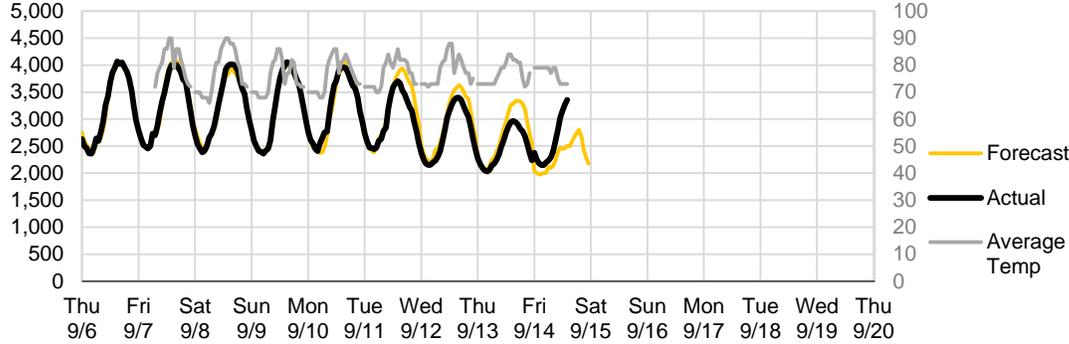
Current electricity load data through hour ending 3 pm

Santee Cooper (SC)

Electricity load, actual vs. forecast
megawatts

Myrtle Beach, South Carolina

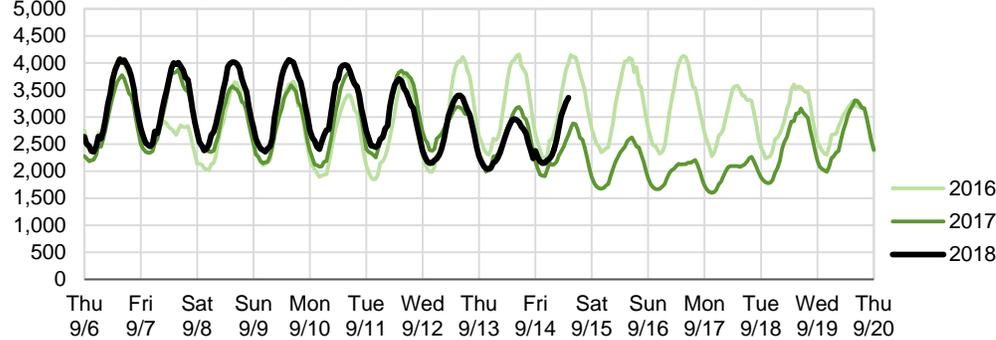
Hourly average temperature
degrees Fahrenheit



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)



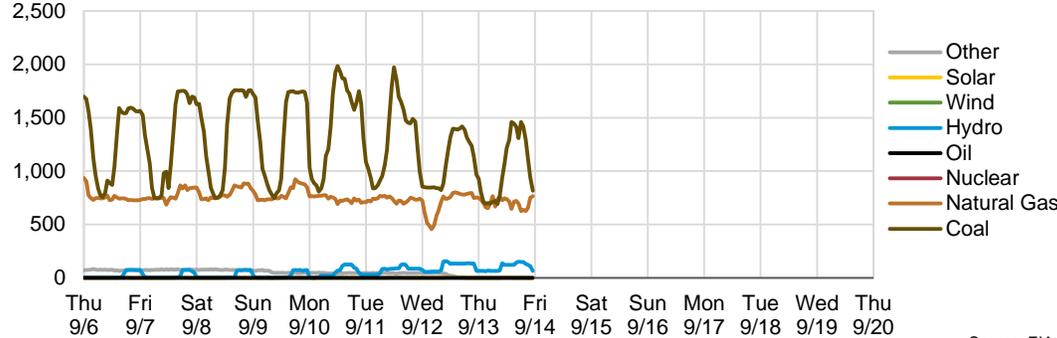
Source: EIA

Santee Cooper (SC) Balancing Authority Total Customers

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

Santee Cooper (SC) net generation by energy source

megawatts

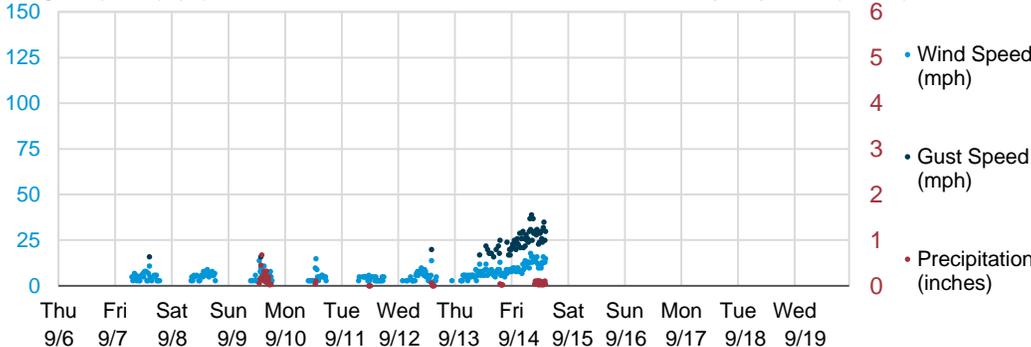


Source: EIA

Myrtle Beach, South Carolina weather

wind & gust speed (mph)

precipitation (inches)



Source: NOAA

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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](#)
 - 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.