

## THE TRANSFORMATION OF THE ENERGY SECTOR

## UTILITIES

**Worst-case scenario plans in place as Florence bears down**

Kristi E. Swartz, E&amp;E News reporter

Published: Thursday, September 13, 2018



The Red Cross South Carolina has set up 30 shelters in the state ahead of Hurricane Florence. @RedCrossSC/Twitter

Duke Energy Corp. officials said as many as 75 percent of its customers in North and South Carolina could lose electricity during Hurricane Florence, and some should expect to be without power for weeks.

That would be the worst-case scenario should the storm hit Wilmington and then move through all three of North Carolina's major metropolitan areas. Right now, Florence is on more of a westward path after it hits land, which could spare many of those customers.

"The plan we're putting in place is for the worst-case scenario," which means up to 3 million residents and businesses lose electricity, Howard Fowler, Duke's storm director, said during a media briefing yesterday.

Duke has more to worry about than power outages and potential damage to its grid. There is concern that its coal ash ponds could flood, releasing toxic materials into rivers and streams and eventually affecting drinking water.

At least one of Duke's nuclear plants could face hurricane-force winds, as well, which means it must be shut down beforehand per federal safety regulations.

The Mid-Atlantic is bracing for what officials are calling a catastrophic event as Florence bears down on the coast. The storm is expected to hit the Carolina coast tomorrow. It is currently a Category 2 storm but is expected to strengthen again.

As with most storms, Florence has been unpredictable. It was poised first to go directly across North and South Carolina, but models on Tuesday night started showing the storm moving westward into Georgia before fanning out into Tennessee, Kentucky and parts of western North Carolina.

All of the region's electric utilities had been watching Florence for more than a week, but the hurricane's latest shift meant Southern Co.'s Georgia Power Co. and the Tennessee Valley Authority had to take more notice.

Georgia Gov. Nathan Deal (R) declared a state of emergency yesterday. Georgia Power is also keeping all of its crews in the Peach State until it is clear that they are not needed and can go help other electric companies if necessary.

Southern's Alabama Power and Gulf Power continued to send their crews to the Carolinas as their home territories are not likely to be as affected.

Fowler at Duke said more than 9,400 crews are coming to help, with some traveling as far as Texas. That is in addition to 1,700 workers traveling from Duke's Midwestern territory and 1,200 from Duke Energy Florida.

Duke has assembled the largest number of tree, damage and line crews — 20,000 total — in its history, said David Fountain, president of Duke Energy North Carolina.

"We're anxious to get to work," he said.

It's still unclear when that will be. Although Florence's winds combined with the storm's size will pack a strong punch, its sluggish speed and rain will be the largest threat.

### **Coal ash risks**

Florence is crawling to the coast, and forecasters expect it to stall once it gets there. This means much of the Carolinas could flood, and it will take Duke longer to be able to safely assess equipment damage and get to work.

Officials warned that they expect to have a lot of equipment underwater, and any power lines that already are underground will be difficult to get to.

This also means its sister company, Piedmont Natural Gas Co. Inc., has had to prepare for the potential of underwater meters, gas appliances and other equipment, Fountain said.

A chief concern is the 31 coal ash basins at Duke's coal-fired plants in North Carolina. Half of those 14 coal plants are shuttered, but the basins remain.

Fountain said the levels of water in those basins were lowered already as the utility moves through its program to close them. Crews are inspecting the ponds ahead of the storm and will do so again once it passes, he said.

"There's plenty of capacity in those ash basins if we have the type of flooding that we're expected to have here," he said. If there is more water than the basins can handle, then Duke will take steps to minimize coal ash overflowing into nearby rivers, he said.

Duke's bigger concern is rivers and creeks that are likely to flood and flow into cooling water intake ponds that are at those coal plants, Fountain said. Those ponds do not have coal ash or any other toxic chemicals in them, he added.

Officials from Georgia Power and TVA said they will monitor their ash sites but that they are designed to withstand severe weather.

### **Nuclear flooding hazards**

The amount of flooding at the region's nuclear plants is a red flag for the Union of Concerned Scientists, which argues that the high waters put at least two sets of reactors in North Carolina and Virginia in harm's way.

Duke's Brunswick plant near Wilmington and Dominion Virginia Power's Surry plant near Williamsburg are particularly vulnerable in this case, UCS said in a news release yesterday.

"Nuclear plants are safe from flooding if plant operators properly install protective measures and designers accurately forecast flooding hazards," said Edwin Lyman, a senior scientist in the UCS Global Security Program and an expert in nuclear plant design. "Falling short on either requirement would make a nuclear plant more vulnerable to floods, which could lead to a meltdown."

The U.S. Nuclear Regulatory Commission has sent inspectors to reactors in North and South Carolina and Virginia. Reactors have to be shut down roughly two hours before sustained hurricane-force winds are expected to hit the area.

Meteorologists are predicting that Florence's storm surge could be as high as 13 feet, UCS said.

Fountain stressed that Duke's nuclear workers are trained and prepared to secure the reactors during a hurricane.

Georgia Power's nuclear reactors likely won't face hurricane-force winds, but its Vogtle nuclear expansion project is an active construction site. The utility continues to monitor Florence for any potential impact to the site and has plans in place to ensure the site and employees remain safe before, during and after the storm, spokesman Jeff Wilson said.

Flooding is a chief concern across the Tennessee Valley, where TVA operates 49 dams. TVA keeps the water level higher in the summer, but heavier-than-normal rain in the spring and summer also contributed to that, said James Everett, senior manager of TVA's River Forecast Center in Knoxville.

The public power utility, which serves seven states, usually starts to release water in the fall and winter. Florence has accelerated that.

"We're getting a little bit more aggressive on the releases," he said.

The challenge now is that TVA — and everyone else — is getting revised rainfall information roughly every six hours, Everett said. That means it must watch its entire territory and change its water-release strategy if needed.

TVA is sending roughly two-thirds of its construction crews to North Carolina today. It is also sending two helicopters, pilots and a mechanic to Charlotte, where they will ride out the storm in a hangar before helping Duke.

---

Twitter: [@BizWriterKristi](#) | Email: [kswartz@eenews.net](mailto:kswartz@eenews.net)

---

*The essential news for energy & environment professionals*

© 1996-2018 Environment & Energy Publishing, LLC [Privacy and Data Practices Policy](#) [Site Map](#) [Contact Us](#)

---