Jan 27 2023

Duke Energy Carolinas, LLC and Duke Energy Progress, LLC DOCKET NO. M-100, SUB 163 Public Staff Data Request No. 2 – Questions on Winter Storm Elliott Attachment: WSE PS DR 2-6a Weather 12-20-2022

Weather-related outages are not expected across the Carolinas Service Area through Wednesday afternoon.

There will likely be some light freezing rain across the northern half of the Mountain Zone Wednesday night into Thursday morning. Ice accumulations look to be generally 0.10" or less with highest totals to the northeast of the Asheville area. This should not result in outages due to ice accumulation on trees and power lines, but isolated outages may still occur due to slippery roadways.

Very strong and gusty winds are expected in association with a cold front passage on Friday morning. Model guidance continues to indicate wind gusts of 45 to 55 mph across the higher elevations and wind gusts of 35 to 45 mph elsewhere. Significant power outages are likely, beginning prior to daybreak on Friday and continuing through the afternoon hours. Temperatures will be falling throughout the day, from 40s and 50s early Friday morning to 20s and 30s in the afternoon. By early evening, most locations along and west of I-95 will be sub-freezing with wind chills in the teens to lower 20s.

Very cold temperatures are forecast for Saturday morning. Lows are forecast to be in the middle teens across Carolinas-West and upper teens and lower 20s across Carolinas-East.

Carolinas Weather Outlook Issued: 12/20/2022 7:26 AM

Carolinas – West	Tue 12/20	Wed 12/21	Thu 12/22	Fri 12/23
Mountains		Rain and/or freezing rain overnight	AM rain and/or freezing rain; up to 0.10" ice accumulation across northern NC mountains	Wind gusts 45 to 55 mph
Triad		Rain likely overnight, mainly after midnight	Rain through early afternoon	Wind gusts 35 to 45 mph
Central		Rain likely overnight, mainly after midnight	AM rain	Wind gusts 35 to 45 mph
Upstate		Rain likely overnight	AM rain	Wind gusts 35 to 45 mph

Carolinas – East	Tue 12/20	Wed 12/21	Thu 12/22	Fri 12/23
Triangle North		Rain likely overnight, mainly after midnight	Rain through mid- afternoon	Wind gusts 35 to 45 mph
Triangle South		Rain likely overnight, mainly after midnight	Rain through mid- afternoon	Wind gusts 35 to 45 mph
Coastal		Rain likely overnight, mainly after midnight	Rain through late afternoon	Wind gusts 35 to 45 mph
Pee Dee		Rain likely overnight, mainly after midnight	AM rain	Wind gusts 35 to 45 mph
No Threat	Marginal Threat	Moderate Threat	Significant Threat	Major Threat

\*To see a comprehensive map of the Duke Energy Carolinas Distribution Zones, click <u>here</u>.

\*\* For customer outage projection terminology, click <u>here</u>.

**3-Day Carolinas Weather Forecast** 

## Duke Energy Carolinas, LLC and Duke Energy Progress, LLC DOCKET NO. M-100, SUB 163

Public Staff Data Request No. 2 – Questions on Winter Storm Elliott

Attachment: WSE PS DR 2-6a Weather 12-20-2022

*Today:* Considerable cloudiness. Highs in the lower and middle 40s west, middle and upper 40s east. Northeast wind around 5 mph.

*Tonight:* Mostly cloudy in the evening, then decreasing cloudiness after midnight. Lows in the upper 20s to middle 30s. Northeast wind around 5 mph.

*Wednesday:* Mostly sunny, except for partly to mostly cloudy along and east of I-95. Becoming cloudy in the evening with rain likely overnight. Highs in the middle 40s west, upper40s and lower 50s east. Northeast wind 5 to 10 mph.

*Thursday:* Rain in the morning, exiting west-to-east through the afternoon. Lows from the middle 30s west to lower 40s east. Highs in the middle and upper 40s west to middle and upper 50s east. North wind 5 to 10 mph.

## Weather Discussion

Weather-related outages are not expected across the Carolinas Service Area through Wednesday afternoon. Isolated outages are possible across the northern portions of the Mountain Zone Wednesday night into Thursday morning due to light ice accumulations.

Chilly high pressure will build across the Mid-Atlantic and Carolinas today and linger through Wednesday. A storm system will track along the Gulf Coast today, spreading clouds into the Carolinas but any precipitation will remain south of the area. This storm system will re-organize/strengthen near the Southeast US coast late Wednesday and tracks northward through the eastern Carolinas on Thursday.

Mainly dry conditions will prevail through Wednesday afternoon. Precipitation spreads into the region on Wednesday night, mainly after midnight and continues through Thursday morning before exiting the region west-to-east through the afternoon. This will be primarily a rain event for the Carolinas, though temperatures will be cold enough across the northern NC mountains to support a period of freezing rain. **There will likely be some light freezing rain across northern half of the Mountain Zone Wednesday night into Thursday morning. Ice accumulations look to be generally 0.10" or less with highest totals to the northeast of the Asheville area. This should not result in outages due to ice accumulation on trees and power lines, but isolated outages may still occur due to slippery roadways.** 

## EXTENDED FORECAST

A powerful cold front will move quickly across the region early Friday, producing very strong and gusty winds followed by an arctic air mass for the holiday weekend. Temperatures will be falling through the day, with the Carolinas-West region dropping into the upper 20s by mid-afternoon and the Carolinas-East region by early evening. The expected winds will result in much colder wind chills.

## Very strong and gusty winds are expected in association with this cold front passage on Friday morning. Model guidance continues to indicate wind gusts of 45 to 55 mph across the higher elevations and wind gusts of 35 to 45 mph elsewhere. Significant power outages are likely, beginning prior to daybreak on Friday and continuing through the afternoon hours.

Very cold conditions are forecast for Saturday – Monday. Morning lows will be in the teens each day. High temps will be in the upper 20s to middle 30s on Saturday and Sunday then middle 30s to lower 40s on Monday. The middle of next week will be slightly warmer but still below normal; lows in the 20s and highs in the 40s.

\*For Duke zone temperature forecasts, click <u>here</u>. For satellite, radar and lightning graphics, click <u>here</u>.



Duke Energy Carolinas, LLC and Duke Energy Progress, LLC DOCKET NO. M-100, SUB 163 Public Staff Data Request No. 2 – Questions on Winter Storm Elliott Attachment: WSE PS DR 2-6a Weather 12-20-2022



3