

Meteorology Update 12-21-22 07:13

Weather-related outages are not expected across the Carolinas Service Area through this evening.

Isolated outages are possible across the northern portions of the Mountain Zone late tonight into Thursday morning due to light ice accumulations up to 0.10”.

**Significant power outages are likely on Friday due to wind gusts 45-55 mph across the higher elevations and 35-45 mph elsewhere. Additional details below.**



**Carolinas Weather Outlook**  
**Issued: 12/21/2022 7:11 AM**

Carolinas – West	Wed 12/21	Thu 12/22	Fri 12/23	Sat 12/24
<b>Mountains</b>	Rain and freezing rain, mainly after midnight	AM rain and freezing rain; up to 0.10” ice accumulation across northern NC mountains	Wind gusts 45 to 55 mph	
<b>Triad</b>	Rain likely overnight, mainly after midnight	Rain through early afternoon	Wind gusts 35 to 45 mph	
<b>Central</b>	Rain likely overnight, mainly after midnight	AM rain	Wind gusts 35 to 45 mph	
<b>Upstate</b>	Rain likely overnight	AM rain	Wind gusts 35 to 45 mph	

Carolinas – East	Wed 12/21	Thu 12/22	Fri 12/23	Sat 12/24
<b>Triangle North</b>	Rain likely overnight, mainly after midnight	Rain through mid-afternoon	Wind gusts 35 to 45 mph	
<b>Triangle South</b>	Rain likely overnight, mainly after midnight	Rain through mid-afternoon	Wind gusts 35 to 45 mph	
<b>Coastal</b>	AM rain likely. Rain likely after midnight	Rain through late afternoon	Wind gusts 35 to 45 mph	
<b>Pee Dee</b>	AM rain likely. Rain likely after midnight	AM rain	Wind gusts 35 to 45 mph	

	No Threat		Marginal Threat		Moderate Threat		Significant Threat		Major Threat
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\*To see a comprehensive map of the Duke Energy Carolinas Distribution Zones, click [here](#).

\*\* For customer outage projection terminology, click [here](#).

**3-Day Carolinas Weather Forecast**

**Today:** Mostly sunny across the western/central Carolinas. Considerable cloudiness across the eastern Carolinas with rain likely this morning across northeastern SC and southeastern NC. Highs in the middle 40s west, upper 40s east. Northeast wind 5 to 10 mph.

**Tonight:** Cloudy. Chance of rain in the evening then rain likely after midnight. Areas of freezing rain likely across northwestern NC after midnight. Lows in the middle and upper 30s west, lower and middle 40s east. Northeast wind 5 to 10 mph.

**Thursday:** Cloudy with rain likely. Highs in the upper 30s and lower 40s west, middle and upper 40s east, except 50s and 60s near the coast. North wind 5 to 10 mph.

**Friday:** Sunny, windy and very cold. Temperatures at daybreak in the 30s west, 40s east. Afternoon temperatures in the lower and middle 20s west, upper 20s and lower 30s east. West wind 15 to 25 mph, gusting to 45 mph. Minimum wind chills Friday afternoon into Friday night in the single digits, except sub-zero in the mountains/foothills.

### **Weather Discussion**

Weather-related outages are not expected across the Carolinas Service Area through this evening. Isolated outages are possible across the northern portions of the Mountain Zone late tonight into Thursday morning due to light ice accumulations up to 0.10". Significant power outages are likely on Friday due to wind gusts 45-55 mph across the higher elevations and 35-45 mph elsewhere.

Cold high pressure will extend from the Mid-Atlantic to the Carolinas through early tonight. A storm system off the Southeast US coast will then move north across the eastern Carolinas Thursday and up the Mid-Atlantic coast Thursday night. An arctic cold front will approach from the west Thursday night and blast across the region early Friday.

For today, mostly sunny skies along and northwest of I-85 with partly to mostly cloudy skies to the southeast. Light rain is likely across northeastern SC and southeastern NC this morning. Otherwise, mainly dry but could see a few light rain showers across southern sections mid/late afternoon. Highs in the middle 40s west, upper 40s east.

Precipitation spreads into the region tonight, 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 freezing rain across northern half of the Mountain Zone late tonight 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.**

Cloudy with rain tomorrow. Mainly in the morning for the Carolinas-West region, but lasting through mid/late afternoon for the Carolinas-East region. For Carolinas-West, temps will climb very slowly through the day, only reaching the upper 30s and lower 40s by late afternoon. For Carolinas-East, expecting highs only in the mid/upper 40s across interior sections, though coastal locations will be much milder (50s and 60s). Dry conditions on Thursday night. Temperatures nearly steady in the upper 30s to middle 40s.

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. Minimum wind chills Friday afternoon/night will be sub-zero in the mountains/foothills and the single digits to lower teens elsewhere.

**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.**

East of the mountains/foothills, it looks like the strongest wind gusts will occur with the frontal passage, but then gusty conditions will persist through the remainder of the day. With this in mind, the greatest risk of wind gusts 40-45 mph will occur along and northwest of I-85 2am-7am, between I-85 and I-95 6am-10am and east of I-95 9am-1pm. Cannot rule out a few gusts up to 50 mph for locations southeast of I-85. Once this threat of peak wind gusts passes, wind gusts are expected to be generally 30-40 mph through the afternoon hours.

### **EXTENDED 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 12-21-2022 0713 am

The main story for the holiday weekend is the arctic air mass that will prevail across the eastern US. Temperatures will be 15 to 25 degrees below normal; coldest on Saturday with slight moderation Sunday and Monday. Dry conditions are expected each day.

Saturday will be sunny with low temps in the low-mid teens west, mid-upper teens east followed by high temps in upper 20s to middle 30s. Sunday will be slightly warmer, starting in the mid-upper teens followed by highs in the 30s. Monday will start out in the upper teens and reach the upper 30s to middle 40s.

Temperatures will continue to gradually moderate through the week, returning to seasonal levels on Thursday and slightly above seasonal levels on Friday. The 11-15 day period looks seasonably warm with temperatures averaging 10 to 12 degrees above normal.

\*For Duke zone temperature forecasts, click [here](#). For satellite, radar and lightning graphics, click [here](#).

