

Meteorology Update 12/22/22 0713 am

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

Significant power outages are likely late tonight through Friday due to wind gusts 45-55 mph across the higher elevations and 35-50 mph elsewhere. Additional storm details below.

Weather-related outages are not expected Saturday – Tuesday.

Weekend of December 23-26, 2022	
On-Call Meteorologist:	
Cell #:	
Forecast updates will be sent only on an as-needed basis during weekends	
Please contact the on-call meteorologist directly for weather support	
For additional help, email	




Carolinas Weather Outlook

Issued: 12/22/2022 7:05 AM

Carolinas – West	Thu 12/22	Fri 12/23	Sat 12/24	Sun 12/25
Mountains	AM rain and freezing rain; up to 0.10" ice accumulation across northern NC mountains; wind gusts up to 45 mph after midnight	Wind gusts 45 to 55 mph	Wind chills -10F to -20F in the morning	
Triad	Rain through early afternoon; wind gusts up to 45 mph after midnight	Wind gusts 35 to 40 mph	Wind chills around -5F in the morning	

Central	AM rain; wind gusts up to 45 mph after midnight	Wind gusts 35 to 40 mph	Wind chills around 0F in the morning	
Upstate	AM rain; wind gusts up to 45 after midnight	Wind gusts 30 to 35 mph	Wind chills around 0F in the morning	

Carolinas – East	Thu 12/22	Fri 12/23	Sat 12/24	Sun 12/25
Triangle North	Rain through mid-afternoon; wind gusts up to 45 mph after midnight	Wind gusts up to 50 mph in the morning, then gusts 35 to 45 mph	Wind chills around -5F in the morning	
Triangle South	Rain through mid-afternoon; wind gusts up to 45 mph after midnight	Wind gusts up to 50 mph in the morning, then gusts 35 to 40 mph	Wind chills around 0F in the morning	
Coastal	Rain through late afternoon; wind gusts up to 40 mph after midnight	Wind gusts up to 50 mph in the morning, then gusts 35 to 40 mph	Wind chills around 5F in the morning	
Pee Dee	AM rain; wind gusts up to 45 mph after midnight, strongest across Upper PeeDee	Wind gusts up to 50 mph in the morning, then gusts 35 to 40 mph	Wind chills around 5F in the morning	

	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: 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.

Tonight: Cloudy and becoming windy after midnight. Temperatures rising from the upper 30s and lower 40s in the evening to the middle and upper 40s after midnight. Southwest wind 5 to 10 mph in the evening, then increasing to 15 to 25 mph with gusts to 45 mph after midnight.

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 30 mph, gusting to 50 mph.

Saturday: Sunny and very cold. Lows in the lower and middle teens. Highs in the upper 20s to middle 30s. West wind 10 to 15 mph.

Weather Discussion

Weather-related outages are not expected across the Carolinas Service Area through this evening. Significant power outages are likely late tonight through Friday due to wind gusts 45-55 mph across the higher elevations and 35-50 mph elsewhere. Additional storm details below. Weather-related outages are not expected Saturday – Tuesday.

Low pressure will track northward across the eastern Carolinas and southeastern VA today while chilly high pressure will otherwise remain across the interior Carolinas and Mid-Atlantic. Meanwhile, a strong cold front will approach from the west then blast across the region Friday morning, followed by an arctic air mass for the weekend.

For today, the Carolinas-West region will be cloudy with rain likely in the morning and exiting east of the area by early afternoon. Temperatures will be nearly steady in the mid-upper 30s this morning, then warm into the lower 40s this afternoon once the rain departs. Still expecting some light freezing rain across far northwestern sections of NC, but ice accumulations will be generally less than 0.10". The Carolinas-East region will be cloudy with rain likely through mid-afternoon and exiting to the northeast by early evening. The main challenge today will be how far inland the warmer air at the coast penetrates. Our forecast continues to favor the colder model solutions that keep Raleigh in the 40s. But there is a risk that we see 50s reach Raleigh this afternoon before dropping back into the 40s this evening.

Skies will be mostly cloudy tonight. System average temps are forecast to be in the lower 40s at 7pm and gradually rise overnight, reaching the upper 40s by 4am. The cold front will sweep across the Carolinas-West region between 4am and 7am. Our forecast has temperatures dropping from the upper 40s to lower 30s during that period. The front will sweep across the Carolinas-East region between 7am and 12am. Our forecast has the temperatures dropping from around 50 degrees to lower 30s during that period. By late afternoon, temperatures are forecast to be in the lower and middle 20s across Carolinas-West and mid-upper 20s across Carolinas-East.

Significant power outages are likely across the Carolinas Service Area tonight through Friday due to very strong and gusty winds in association with this cold front passage. The overnight model guidance has trended slightly faster with the timing of the front, so the peak wind gusts are now expected arrive a couple of hours sooner than previously anticipated. It now looks like we will see gusts up to 45 mph across Upstate SC and western NC beginning closer to midnight tonight. By 4am, expecting wind gusts up to 45 mph along the I-85 corridor and gusts up to 40 mph as far east as the I-95 corridor. At 7am, the peak gusts will have exited the I-85 corridor but will be moving through the I-95 corridor. Some of the model guidance suggests we could see wind gusts up to 50 mph (and possibly even a bit higher) across the Triangle North/South zones, western portions of Coastal Zone and Lower Pee Dee Zone right around daybreak. Then, the peak wind gusts move off the coast by 10am. Once the peak wind gusts sweep across the region, look for wind gusts generally 35-40 mph through the afternoon hours.

The Mountain Zone will remain very windy/gusty throughout the day. Look for wind gusts at or greater than 45 mph beginning around midnight tonight and persisting through late Friday evening. Peak wind gusts >50 mph are most likely to occur between daybreak and mid-afternoon.

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 12-22-2022 0713 am

The combination of the arctic air mass and the strong winds will result in very cold wind chills across the region Friday afternoon through Saturday morning. For the higher elevations, minimum wind chills will be -10F to -20F. To the east, minimum wind chills will be -5F to +5F.

EXTENDED FORECAST

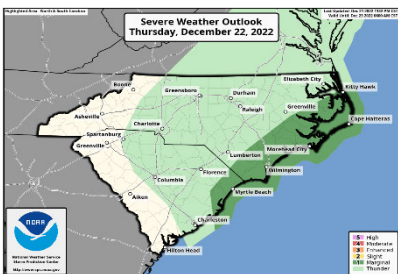
The main story for the holiday weekend is the arctic air mass that will prevail across the eastern US. Temperatures will be 15 to 25 degrees below normal; coldest on Saturday with slight moderation Sunday and Monday. Dry conditions are expected each day.

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 lower 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 middle 30s to lower 40s.

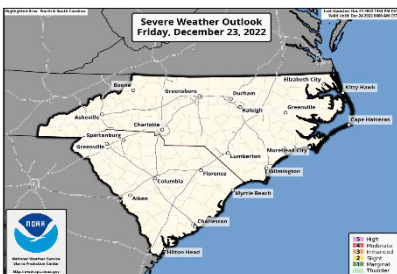
Temperatures will continue to gradually moderate through the week, returning to seasonal levels on Thursday and slightly above seasonal levels on Friday. The 11-15 day period looks seasonably warm with temperatures averaging 10 to 12 degrees above normal.

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

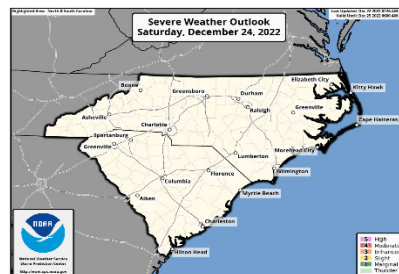
SPC Outlook Day 1



SPC Outlook Day 2



SPC Outlook Day 3



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