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 12-22-2022 0830 am

Carolinas Meteorology Update 12/22/22 08:30

No changes to the Carolinas Resource Model Run at this time. Use the mid-level numbers for planning purposes.

Still expecting a 1-2 hour period of "peak" wind gusts in the morning, followed by slightly weaker but still windy/gusty conditions in the afternoon.

Temperatures will be falling through the day on Friday and will be accompanied by dangerous wind chills in the afternoon and overnight. For the mountains and foothills, minimum wind chills will be -10F to - 20F. To the east, minimum wind chills look to be -5F to 5F.

The model guidance has trended slightly faster since yesterday, so expecting peak winds to arrive in the western Carolinas closer to midnight tonight.

Also, some of the model guidance is showing a possibility of some wind gusts around 50 mph in the vicinity of the I-95 corridor around daybreak on Friday.

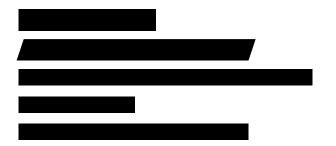
From this morning's weather outlook:

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.

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.

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