Duke Energy Carolinas, LLC and Duke Energy Progress, LLC DOCKET NO. M-100, SUB 163
Public Staff Date Request No. 2 – Questions on Winter Storm Elliott Attachment: WSE PS DR 2-6a Weather 12-20-22 0838 am

Meteorology Email 12/20/2022 08:38

Very strong and gusty winds are expected on Friday in association with a strong cold front sweeping across the region during the morning hours. 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. Daytime high temps will only be in the upper 20s and lower 30s for Carolinas-West and low-mid 30s for Carolinas East. Sunday morning will feature low temps in the middle and upper teens areawide.

Attached is the Carolinas Resource Model Run based on this forecast, using peak wind gusts of 45 mph for the non-mountainous locations and 45 to 55 mph for the higher terrain.

The recommendation is to <u>use the mid-level numbers for planning purposes</u>, but the risk is on the slightly higher side of the mid-level values (assuming these peak wind gusts verify). The thinking is that we haven't had a widespread gusty wind event like this in quite awhile and the "first one" tends to lead to slightly higher event/outage numbers.

We will continue to monitor the model guidance and make adjustment to the forecast and resource run as-needed.