



Jason A. Higginbotham
Associate General Counsel

4720 Piedmont Row Drive/PNG 04C
Charlotte, NC 28210

o: 704.731.4015

Jason.Higginbotham@duke-energy.com

OFFICIAL COPY

Aug 26 2022

August 26, 2022

VIA ELECTRONIC FILING

Ms. Shonta A. Dunston
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Reply
Comments
Docket No. M-100, Sub 163**

Dear Ms. Dunston:

Enclosed for filing in the above-referenced docket are Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Reply Comments.

If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Jason Higginbotham". The signature is fluid and cursive, with the first name "Jason" and last name "Higginbotham" clearly legible.

Jason A. Higginbotham

Enclosure

cc: Parties of Record

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Reply Comments, in Docket No. M-100, Sub 163, has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 26th day of August, 2022.



Jason A. Higginbotham
Associate General Counsel
Duke Energy Corporation
4720 Piedmont Row Drive/PNG 04C
Charlotte, NC 28210
Tel 704.731.4015
Jason.Higginbotham@duke-energy.com

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. M-100, SUB 163

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Investigation)	REPLY COMMENTS OF DUKE
Regarding the Ability of North Carolina's)	ENERGY CAROLINAS, LLC
Electricity, Natural Gas, and)	AND DUKE ENERGY
Water/Wastewater Systems to Operate)	PROGRESS, LLC
Reliably During Extreme Cold Weather)	

NOW COME Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively the "Companies" or "Duke Energy") pursuant to the North Carolina Utilities Commission's ("Commission") May 12, 2022 *Order Requesting Comments* ("Order") and hereby submit the following Reply Comments. The Companies also submit additional electronic and paper filing rule amendments for the Commission's consideration in Appendix A to this filing.

BACKGROUND

On June 29, 2022, certain parties to this docket submitted Initial Comments on the question of whether Commission Rules R8-40, R8-40A, and R8-41 (collectively, the "Power Reliability Rules" or "Rules") required revision to ensure that North Carolina's electric public utilities can operate reliably during extreme cold weather.¹

In their Initial Comments, the Companies opined that changes to the Power Reliability Rules were not required based on the information submitted by the utilities regarding their practices for protecting against extreme cold weather. The Companies also

¹ The Companies did not address in their Initial Comments possible changes to the Commission's rules for natural gas and water and wastewater utilities.

suggested that the scope of Project 2021-07, the pending North American Electric Reliability Corporation (“NERC”) proceeding to implement new cold weather-related reliability requirements, would sufficiently address the findings and recommendations from the widespread outages that occurred in February 2021. As a result, the Companies suggested that the Commission consider whether it would benefit from concurrent reporting of any new reporting requirements borne out of the NERC proceeding.

For different reasons, Dominion Energy North Carolina also opined in its Initial Comments that changes to the Rules were not required. The Public Staff’s Initial Comments included several proposed revisions to the Rules.

On July 26, 2022, the Commission issued an order granting a motion filed by Piedmont Natural Gas Company, Inc. for an additional 30 days to file Reply Comments, thereby extending the due date for Reply Comments to August 26, 2022. On August 9, 2022, Public Staff submitted Reply Comments which summarized the Initial Comments of the parties to this docket and reiterated Public Staff’s recommendation that the Power Reliability Rules be revised as proposed in Public Staff’s Initial Comments.

REPLY COMMENTS

As stated in their Initial Comments, the Companies commend the Commission’s initiative in opening this docket and soliciting feedback from the North Carolina utilities. The importance of ensuring system reliability during extreme weather was highlighted during February 2021 and served as a cautionary tale for utilities, system operators, planners, and regulators around the country. The Companies have incorporated several lessons learned from the February 2021 events into their processes and are actively monitoring Project 2021-07.

The Companies appreciate the Public Staff's proposed changes to the Power Reliability Rules that reflect the adoption of computer-based and electronic methods of exchanging information. The Companies also agree with Public Staff's ministerial changes to the Rules to define undefined terms and correct or refine various terminology and formatting issues. Although the Companies continue to believe that substantive revisions to the Power Reliability Rules are not required at this time, given the scope of Project 2021-07, the Companies do not object to Public Staff's proposed revisions provided that certain proposals are clarified or modified as discussed below.

I. Modifications to Public Staff's Proposed Revisions to the Commission's Power Reliability Rules

The Companies believe that the Commission will benefit most from reporting that provides meaningful information and is responsive to requirements that are sufficiently clear. Revisions to the Commission's Power Reliability Rules will require utilities to update their processes for gathering and preparing information and may require additional resources. To avoid inconsistent interpretations and create consistency with federal reporting requirements, Duke Energy recommends modest modifications to certain of Public Staff's proposed revisions to Commission Rule R8-40. The Companies do not object to Public Staff's remaining proposed revisions to the Rules.

A. Rule R8-40(a) – Definitions

The proposed revisions to Rule R8-40(a) add to the definition of "bulk electric power supply interruption" outages on "any transmission line, transformer, or related facilities" and revise the nominal voltage for all such facilities to 44 kV. The proposed revisions also clarify that "outage refers to anywhere within the public electric utility's or electric membership corporations balancing authority regardless of jurisdiction."

The Companies recommend deleting the proposed addition of “related facilities,” as it could be subject to multiple interpretations and result in overly broad and inconsistent reporting. In light of the proposal to include reporting for outages on transmission lines and transformers, the Companies also recommend increasing the nominal voltage threshold to 100 kV to align with existing NERC reporting requirements and to capture only those outages that occur on bulk electric system facilities. The proposed 44 kV threshold is likely to result in excessive reporting of outages with relatively small impacts and could create significant administrative burdens and inefficiencies.

Additionally, the Companies recommend that the language clarifying the geographic scope of outage reporting be updated to include the specific states to be included. It is the Companies’ assumption that Public Staff’s proposed addition is intended to capture outages that occur in both North Carolina and South Carolina.

B. Rule R8-40(b) – Electronic Reports

The proposed revisions to Rule R8-40(b) include certain ministerial changes and updates to reflect the use of electronic methods for reporting events. The proposed revisions also replace the term “use of electricity” with “load” in section (b)(1), replace the term “bulk electric power supply” with “utility service” in section (b)(3), change “200,000 kW” to “100,000 kW” in section (b)(4), and delete “that are of consequence on a subregional or State basis” in section (b)(5).

The Companies recommend that the proposed deletion in section (b)(5) – “that are of a consequence on a subregional or State basis” – be retained, as the language serves as an important qualifier for reporting obligations and avoids overreporting. As noted, it is the Companies’ position that reporting requirements should provide meaningful

information. The language at issue serves as an important filter that prevents unnecessary reporting on minor occurrences.

C. Rule R8-40: Section (d) – Information to be Reported

The proposed revisions to Rule R8-40(d) include several ministerial and formatting revisions. The revisions also add a new section (d)(7) which, if accepted, would add to an initial report, “a list and description of what other utility electrical service equipment was impacted.” Additionally, the revisions reflect the use of electronic methods to report information and provide for copies of all reports be provided to the Energy Division of the Public Staff.

The Companies have no objection to Public Staff’s proposed revisions to Rule R8-40(d), provided that “electrical service equipment,” which is used for the first time in this section, include a definition. The Companies propose that electrical service equipment be defined to include “any electric generator, transmission line, and transformer operating at a nominal voltage of 100 kV or higher” to align with the equipment identified in section (a) that triggers the reporting obligation.

D. Rule R8-40: Section (e) – Special Investigations and Reports

The proposed revisions to Rule R8-40(e) include updates to reflect the use of electronic methods to file reports if directed by the Commission and telephonic methods, if electronic methods are not available in section (e)(1). The revisions also add a requirement to describe “weather of an unusual nature” preceding the event at issue in section (e)(2)(ii). In addition, there are several ministerial updates to certain terms and language throughout section (e)(2). Finally, the proposed revisions include the addition of the terms “electrical service equipment” and “ancillary electrical service equipment” in section (e)(2)(vi).

The Companies observe that the requirement to describe “weather of an unusual nature” may yield various interpretations and could result in inconsistent reporting. As a result, the Companies recommend replacing the word “weather” with “weather that could impact utility service” and moving the resulting phrase to a different part of the sentence so that weather is no longer qualified by the word “unusual.” In addition, the Companies recommend that “ancillary” be deleted from the phrase “ancillary electrical service equipment.” Above, the Companies have proposed a definition for “electrical service equipment” and recommend that their proposed definition apply in section (e).

II. Conclusion

WHEREFORE, Duke Energy Duke Energy Carolinas, LLC and Duke Energy Progress, LLC respectfully request that the Commission take these Reply Comments into consideration.

Respectfully submitted this 26th day of August, 2022.



Jason A. Higginbotham
Associate General Counsel
Duke Energy Corporation
PO Box 1551/NCRH 20
Raleigh, North Carolina 27602
Telephone: (704) 731-4015
Jason.Higginbotham@duke-energy.com

Jack E. Jirak
Deputy General Counsel
Duke Energy Corporation
PO Box 1551/NCRH 20
Raleigh, North Carolina 27602
Telephone: (919) 546-3257
Jack.jirak@duke-energy.com

*Counsel for Duke Energy Carolinas, LLC
and Duke Energy Progress, LLC*

Rule R8-40. REPORT OF IMPENDING EMERGENCIES, LOAD REDUCTIONS AND SERVICE INTERRUPTIONS IN BULK ELECTRIC POWER SUPPLY AND RELATED POWER SUPPLY FACILITIES.

(a) Definitions. — For the purpose of this rule, a bulk electric power supply interruption shall be any interruption or loss of service to customers of any public electric utility, or electric membership corporation engaged in the generation or transmission of electric energy caused by or involving an outage of any electric generation, transmission line, transformer, or related unit or of electric facilities operating at a nominal voltage of 69 44100 kV or higher. In determining the aggregate of loads which are interrupted, any load which is interrupted in accordance with the provisions of contracts permitting interruptions in service shall not be included. For purposes of this rule, outage refers to anywhere within the public electric utility's or electric membership corporation's balancing authority, regardless of jurisdiction whether it occurs in North Carolina or South Carolina.

(b) ~~Telephonic~~ Electronic Reports. — Every public electric utility and electric membership corporation engaged in the generation or transmission of electric energy shall report promptly (Monday ~~—through~~ Friday, during regular work hours) to the Operations Division of the Commission Staff and the Electric Energy Division of the Public Staff of the North Carolina Utilities Commission by telephone electronic method such as email (telephonic means, including text messaging, may be used if other electronic methods are unavailable) any event as described below:

- (1) Any decision to issue a public request for reduction in use of electricity load.
- (2) Any action to reduce firm customer loads by reduction of voltage for reasons of maintaining adequacy of bulk electric power supply.
- (3) Any action to reduce firm customer loads by manual switching, operation of automatic loadshedding devices, or any other means for reasons of maintaining adequacy of bulk electric power supply utility service.
- (4) Any loss in service for 15 minutes or more of bulk electric power supply to aggregate loads in excess of 200100,000 kW.
- (5) Any outage in bulk power supply facilities, accident to system facilities, delays in construction, or substantial delays in making repairs following unscheduled outages ~~that are of consequence on a subregional or State basis~~ that are of consequence on a subregional or State basis, or which may constitute an unusual hazard to the reliability of electric service.

~~(c) Telegraphic or Telephonic Reports. — Every public electric utility and electric membership corporation engaged in the generation or transmission of electric energy shall report any event as described below to the Operations Division of the Commission Staff and Electric Division of the Public Staff of the North Carolina Utilities Commission by telephone or telegram.~~

~~These reports are to be made no later than the beginning of the Commission's next regular work day (Monday — Friday) after the interruption occurred. Events requiring a report are as follows:~~

~~Any loss in service for 15 minutes or more of bulk electric power supply to aggregate loads exceeding the lesser of 100,000 kW or half of the current annual system peak load,~~

~~and not required to be reported under subsection (b). See subsection (d) for information to be reported.~~

(d) Information to Be Reported. — The information supplied in the initial report should include, at a minimum; at least

- (1) ~~the~~ The approximate territory affected by the interruption; ~~;~~
- (2) ~~the~~ The time of occurrence; ~~;~~
- (3) ~~the~~ The duration, or an appraisal of the likely duration; ~~;~~
- (4) ~~if~~ If service is still interrupted, an estimate of the number of customers and amount of load involved; ~~;~~ and
- (5) ~~whether~~ Whether any known critical services were interrupted, such as hospitals, pumping stations, traffic control systems, etc.; ~~were interrupted;~~
- (6) To the extent known or suspected, the report ~~desirably~~ will include a description of the initial incident resulting in the interruption; and
- (7) A list and description of what other utility electrical service equipment, which includes any electric generator, transmission line, and transformer operating at a nominal voltage of 100 kV or higher, that was impacted.

The Commission or its representative may require further reports during or after the period of interruption and restoration of service, such reports to be made by telephone ~~an electronic method such as email (telephonic means may be used if other electronic methods are unavailable); telegraph or letter, as required.~~ Such further reports shall also be provided to the Energy Division of the Public Staff.

(e) Special Investigations and Reports.

(1) If so directed by the Commission, an entity experiencing a condition, as described in subsections (b) ~~and (c)~~, shall submit a full report of the circumstances surrounding such occurrence and the conclusions the entity has drawn therefrom. The report shall be filed at such time subsequent to the submittal of the initial report by an electronic method such as email (telephonic means may be used if other electronic methods are unavailable) ~~telephone or telegraph as may be directed by the Commission.~~

(2) The report shall be prepared in such detail as may be appropriate to the severity and complexity of the incident experienced and should include an account understandable to the informed layman in addition to the following technical and other information:

- (i) The cause or causes of the incident clearly described, including the manner in which it was initiated.
- (ii) A description of any operating conditions or weather of an unusual nature or weather that could impact utility service preceding the initiation of the incident.
- (iii) If the incident was an interruption and geographically widespread, an enumeration of the sequence of events contributing to its spread.
- (iv) An account of the measures taken which prevented further spreading in the loss of service, e.g., manual or automatic load shedding, unit isolation,

or system sectionalization. These actions and all chronicled events should be ~~come part of~~ keyed to a record of the ~~coincident frequencies which interruptions that have~~ occurred in the utility's service area.

(v) A description of the measures taken to restore service with ~~particular an~~ evaluation of the availability of ~~start up power and~~ native generation or imports, and the ease or difficulty of restoration.

(vi) A statement of the capacity of the ~~transmission lines~~ electrical service equipment, as defined in section (d), into the area of load interruption, the generating capacity in operation in the area at the beginning of the disturbance, and the actual loading on the generating units and, where available, the loading on the ~~lines~~ ancillary electrical service equipment at that time. When actual loadings are not available, estimate the ~~line loadings~~ electrical service equipment loading at the time to the extent possible.

(vii) A summary description of any equipment damage and the status of its repair.

(viii) A description of the impact of any load reduction or interruption on people and industries in the affected area, ~~including a copy of materials in the printed news media indicative of the impact~~.

(ix) Information on the steps taken, being taken, or planned by the utility, to prevent recurrence of conditions of a similar nature, to ease problems of service restoration, and to minimize impacts on the public and the customers of any future ~~conditions~~ outages of a similar nature.

(NCUC Docket No. E-100, Sub 8, 12/30/70; NCUC Docket No. M-100, Sub 75, 10/27/77; NCUC Docket No. M-100, Sub 140, 12/03/13.)

Rule R8-40. REPORT OF IMPENDING EMERGENCIES, LOAD REDUCTIONS AND SERVICE INTERRUPTIONS IN BULK ELECTRIC POWER SUPPLY AND RELATED POWER SUPPLY FACILITIES.

(a) Definitions. — For the purpose of this rule, a bulk electric power supply interruption shall be any interruption or loss of service to customers of any public electric utility, or electric membership corporation engaged in the generation or transmission of electric energy caused by or involving an outage of any electric generation, transmission line, transformer operating at a nominal voltage of 100 kV or higher. In determining the aggregate of loads which are interrupted, any load which is interrupted in accordance with the provisions of contracts permitting interruptions in service shall not be included. For purposes of this rule, outage refers to anywhere within the public electric utility's or electric membership corporation's balancing authority, regardless of whether it occurs in North Carolina or South Carolina.

(b) Electronic Reports. — Every public electric utility and electric membership corporation engaged in the generation or transmission of electric energy shall report promptly (Monday through Friday, during regular work hours) to the Operations Division of the Commission Staff and the Energy Division of the Public Staff of the North Carolina Utilities Commission by electronic method such as email (telephonic means, including text messaging, may be used if other electronic methods are unavailable) any event as described below:

- (1) Any decision to issue a public request for reduction in load.
- (2) Any action to reduce firm customer loads by reduction of voltage for reasons of maintaining adequacy of bulk electric power supply.
- (3) Any action to reduce firm customer loads by manual switching, operation of automatic loadshedding devices, or any other means for reasons of maintaining adequacy of utility service.
- (4) Any loss in service for 15 minutes or more of bulk electric power supply to aggregate loads in excess of 100,000 kW.
- (5) Any outage in bulk power supply facilities, accident to system facilities, delays in construction, or substantial delays in making repairs following unscheduled outages that are of consequence on a subregional or State basis, or which may constitute an unusual hazard to the reliability of electric service.

(d) Information to Be Reported. — The information supplied in the initial report should include, at a minimum:

- (1) The approximate territory affected by the interruption;
- (2) The time of occurrence;
- (3) The duration, or an appraisal of the likely duration;
- (4) If service is still interrupted, an estimate of the number of customers and amount of load involved;

- (5) Whether any known critical services were interrupted, such as hospitals, pumping stations, traffic control systems, etc.;
- (6) To the extent known or suspected, the report will include a description of the initial incident resulting in the interruption; and
- (7) A list and description of what other utility electrical service equipment, which includes any electric generator, transmission line, and transformer operating at a nominal voltage of 100 kV or higher, that was impacted.

The Commission or its representative may require further reports during or after the period of interruption and restoration of service, such reports to be made by an electronic method such as email (telephonic means may be used if other electronic methods are unavailable). Such further reports shall also be provided to the Energy Division of the Public Staff.

(e) Special Investigations and Reports.

- (1) If so directed by the Commission, an entity experiencing a condition, as described in subsections (b), shall submit a full report of the circumstances surrounding such occurrence and the conclusions the entity has drawn therefrom. The report shall be filed at such time subsequent to the submittal of the initial report by an electronic method such as email (telephonic means may be used if other electronic methods are unavailable).
- (2) The report shall be prepared in such detail as may be appropriate to the severity and complexity of the incident experienced and should include an account understandable to the informed layman in addition to the following technical and other information:
 - (i) The cause or causes of the incident clearly described, including the manner in which it was initiated.
 - (ii) A description of any operating conditions of an unusual nature or weather that could impact utility service preceding the initiation of the incident.
 - (iii) If the incident was an interruption and geographically widespread, an enumeration of the sequence of events contributing to its spread.
 - (iv) An account of the measures taken which prevented further spreading in the loss of service, e.g., manual or automatic load shedding, unit isolation, or system sectionalization. These actions and all chronicled events should become part of a record of the interruptions that have occurred in the utility's service area.
 - (v) A description of the measures taken to restore service with an evaluation of the availability of native generation or imports, and the ease or difficulty of restoration.
 - (vi) A statement of the capacity of the electrical service equipment, as defined in section (d), into the area of load interruption, the generating capacity in operation in the area at the beginning of the disturbance, and the actual loading on the generating units and, where available, the loading on the electrical service equipment at that time. When actual loadings are

not available, estimate the electrical service equipment loading at the time to the extent possible.

(vii) A summary description of any equipment damage and the status of its repair.

(viii) A description of the impact of any load reduction or interruption on people and industries in the affected area.

(ix) Information on the steps taken, being taken, or planned by the utility, to prevent recurrence of conditions of a similar nature, to ease problems of service restoration, and to minimize impacts on the public and the customers of any future outages of a similar nature.

(NCUC Docket No. E-100, Sub 8, 12/30/70; NCUC Docket No. M-100, Sub 75, 10/27/77; NCUC Docket No. M-100, Sub 140, 12/03/13.)