

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1282

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)
Application of Duke Energy Carolinas, LLC) **REBUTTAL TESTIMONY OF**
Pursuant to G.S. 62-133.2 and NCUC Rule) **JEFFREY FLANAGAN**
R8-55 Relating to Fuel and Fuel-Related) **DUKE ENERGY CAROLINAS, LLC**
Charge Adjustments for Electric Utilities)

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION**
2 **WITH THE COMPANY.**

3 A. My name is Jeffrey Flanagan and my business address is 8320 East Highway 150,
4 Terrell, North Carolina. I am employed by Duke Energy and am the General
5 Manager III of the Carolinas Dispatchable Generation - West Zone including
6 Marshall, Allen, Asheville, and W.S. Lee stations.

7 **Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN SUPPORT OF**
8 **THE COMPANY'S APPLICATION IN THIS DOCKET?**

9 A. Yes.

10 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

11 A. The purpose of my rebuttal testimony is to: (1) respond to Public Staff Witness
12 Evan Lawrence's testimony that certain outages that occurred at Duke Energy
13 Carolina, LLC's ("DEC" or the "Company") Belews Creek Steam Station Unit
14 2 and W.S. Lee Combined Cycle Plant during the test-period were preventable;
15 (2) Witness Lawrence's suggestion that the Company has not been responsive
16 to Public Staff's Fossil-Hydro Semi-Annual Data Request; and (3) Mr.
17 Lawrence's request to keep the above-mentioned outages, and corresponding
18 replacement power costs, open beyond the test-period.

19 **Q. WAS THE COMPANY'S MANAGEMENT OF ITS FOSSIL FLEET**
20 **DURING THE TEST-PERIOD PRUDENT?**

21 A. Yes, the Company's management of its fossil fleet during the test-period was
22 reasonable and prudent, as demonstrated by its longstanding history of
23 executing outages in a prudent manner, following prescribed processes and
24 operating experience to maintain its fleet reliably for DEC's customers.

1 **Q. WHAT IS THE STANDARD OF REVIEW FOR DETERMINING THE**
2 **PRUDENCE OF THE COMPANY’S MANAGEMENT OF ITS FLEET?**

3 A. While I am not an attorney, it is my understanding that the Commission has
4 determined that the appropriate standard for prudence turns on the question
5 whether management decisions were made in a reasonable manner and at an
6 appropriate time on the basis of what was known or reasonably should have been
7 known at the time.¹ The Commission further determined that “this standard is one
8 of reasonableness that must be based on a contemporaneous view of the action or
9 decision under question. Perfection is not required. Hindsight analysis -- the
10 judging of events based on subsequent developments -- is not permitted.”²
11 Contrary to witness Lawrence’s testimony, the question in fuel cases is not
12 whether an outage was or was not “preventable” but instead whether the
13 Company’s decisions in connection with such outage were prudent.

14 **Q. THE PUBLIC STAFF ASSERTS THAT CERTAIN OUTAGES,**
15 **IDENTIFIED BELOW, WERE PREVENTABLE EQUIPMENT**
16 **FAILURES. DO YOU AGREE WITH THAT ASSERTION?**

17 A. No. The Public Staff reviewed post-outage documentation to make their
18 determination that these outages were preventable. Hindsight information, i.e.,
19 post-outage documentation, does not give an accurate view of whether an outage
20 was preventable. None of the outages discussed later in this testimony presented
21 pre-outage indicators that there were problems that would have caused forced
22 outages and required immediate attention. Witness Lawrence has failed to offer

¹ North Carolina Utilities Commission *Order Approving Fuel Charge Adjustment* at 24, Docket No. E-7, Sub 1163 (August 20, 2018)

² *Id.*

1 evidence sufficient to establish that management decisions concerning pre-outage
2 activities were unreasonable given what was known at the time. Therefore, the
3 Public Staff’s assertions that these outages were preventable are unfounded.

4 **Q. DO YOU AGREE WITH WITNESS LAWRENCE’S CONTENTION**
5 **THAT THE BELEWS CREEK UNIT 2 OUTAGE EXTENSION THAT**
6 **BEGAN ON APRIL 22, 2022, “WAS PREVENTABLE AND LIKELY**
7 **CAUSED BECAUSE SOMEONE WORKING ON THE TURBINE DID**
8 **NOT FOLLOW PROPER PROCEDURES?**

9 A. No, I do not believe that the Belews Creek Unit 2 outage extension that began
10 on April 22, 2022, was preventable. By way of background, the March 17th
11 planned outage was scheduled to perform boiler maintenance, technology
12 updates, and turbine valve work. Part of the planned scope also included a
13 routine borescope inspection of the intermediate pressure (IP) turbine to inspect
14 general condition and look for any issues that may need to be addressed in
15 future planned maintenance. [BEGIN CONFIDENTIAL] [REDACTED]
16 [REDACTED] [END
17 CONFIDENTIAL] routine borescope inspection performed on April 1, 2022
18 during the planned outage.

19 [REDACTED] [BEGIN CONFIDENTIAL] [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED] [END CONFIDENTIAL]. The scope of
23 work to disassemble and reassemble the IP turbine extended the outage end date
24 from April 22, 2022 to May 8, 2022 (16 days).

1 The Company believes that the [BEGIN CONFIDENTIAL] [REDACTED]
2 [REDACTED]
3 [REDACTED] [END CONFIDENTIAL] (FME) prevention during
4 turbine maintenance work. [BEGIN CONFIDENTIAL] [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED] [END CONFIDENTIAL]

8 It is believed that the [BEGIN CONFIDENTIAL] [REDACTED]
9 [REDACTED]
10 [REDACTED] [END CONFIDENTIAL] Turbine inspection during the 2018 turbine
11 outage by error while performing final inspection prior to reassembly. There
12 were no operational problems or other indicators of the foreign material in the
13 IP turbine prior to discovery from the borescope inspection in the 2022 planned
14 outage.

15 In conclusion, Mr. Lawrence has presented no evidence to identify
16 specific imprudent actions or inactions but has simply made the conclusory
17 allegation that the outage was “preventable” (which is not the Commission’s
18 prudence standard) and was “likely caused” by someone “not follow[ing]
19 proper procedures.” This is an insufficient basis for disallowance.

20 **Q. DO YOU AGREE WITH MR. LAWRENCE’S ASSERTION THAT THE**
21 **BELEWS CREEK UNIT 2 OUTAGE THAT BEGAN ON AUGUST 31,**
22 **2022, WAS PREVENTABLE?**

23 A. No, I do not agree. A review of the events that led up to this outage show the
24 Company responded and took prudent actions. In 2018 Fall Unit 2 outage the low

1 pressure (LP) turbine crossovers were sent offsite to a specialty vendor for
2 expansion joint replacement. The crossovers are shipped to the vendor fully
3 assembled and return fully assembled. The turbine was reassembled, and no
4 problems were noted until September 4, 2019 [BEGIN CONFIDENTIAL]

5 [REDACTED]
6 [REDACTED]
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED] [END

13 CONFIDENTIAL]. The crossover presented no other abnormal indications until
14 returning to service after a brief outage on August 31, 2022 [BEGIN
15 CONFIDENTIAL]
16 [REDACTED] [END CONFIDENTIAL]

17 Throughout the events [BEGIN CONFIDENTIAL]
18 [REDACTED] [END CONFIDENTIAL] the Company consulted with subject
19 matter experts and took the recommended steps. [BEGIN
20 CONFIDENTIAL]
21 [REDACTED]
22 [REDACTED] [END CONFIDENTIAL], was the design and associated margin fully
23 understood. [BEGIN CONFIDENTIAL]
24 [REDACTED]

1 [REDACTED]
2 [REDACTED]
3 [REDACTED]

4 [REDACTED] **[END CONFIDENTIAL]** This was not apparent or preventable at the
5 time decisions were made on the actions to take.

6 **Q. DO YOU AGREE WITH MR. LAWRENCE’S CONCLUSION THAT**
7 **THE W.S. LEE OUTAGE THAT BEGAN ON DECEMBER 11, 2022,**
8 **WAS PREVENTABLE?**

9 **A.** No, I do not agree. **[BEGIN CONFIDENTIAL]** [REDACTED]
10 [REDACTED] **[END**
11 **CONFIDENTIAL]**. There were no indications of a problem with the **[BEGIN**
12 **CONFIDENTIAL]** [REDACTED]
13 [REDACTED]
14 [REDACTED]

15 [REDACTED] **[END CONFIDENTIAL]** There is nothing the Company did
16 to cause this and no indications that could have been acted on to prevent it. This
17 was not a preventable event.

18 **Q. PLEASE COMMENT GENERALLY ON WITNESS LAWRENCE’S**
19 **RECOMMENDATION TO DEFER COMMISSION DETERMINATION**
20 **ON OUTAGES THAT OCCURRED IN THE TEST-PERIOD.**

21 **A** The Company emphatically disagrees with witness Lawrence’s
22 recommendation to defer consideration of outages that occurred in the test
23 period to the next fuel case proceeding. First, this recommendation is
24 inconsistent the fuel cost recovery construct in North Carolina and introduces

1 uncertainty and delay to a process that is designed to be predictable and timely.
2 Second, the reasons given to justify the deferred consideration are insufficient.

3 **Q. DID THE COMPANY PROVIDE THE REQUISITE SEMI-ANNUAL**
4 **OUTAGE INFORMATION TO THE PUBLIC STAFF FOR**
5 **TEST-PERIOD 2022?**

6 A. Yes. As background, the semi-annual provision of outage information is in itself
7 an accommodation agreed to by the Company that provides Public Staff with
8 information outside and in advance of the cadence of the actual fuel cost
9 proceedings. In this particular case, the Company did in fact provide all of
10 responsive information for the outages in question. Witness Lawrence identifies
11 a vague and unspecified “concern” that the documents provide by the Company
12 “do not satisfy the intent of this agreement as understood by the Public Staff.” The
13 Company believes that it did provide all required information and moreover,
14 Public Staff has had ample time to issue further discovery or engage the Company
15 if it believed more information was needed. The Company is certainly willing to
16 discuss whether any changes are needed to this particular agreement but any
17 difference of opinion on this matter is an insufficient basis to defer outages that
18 occurred in this test period from this case to the next.

19 For all outages, the Company has provided any available outage reports.
20 Consistent with past practice, the Company provides the requested outage
21 reports, if the Company has created one. Where the Company has not created
22 an outage report, the Company indicates as such and instead provides a
23 summary of the outage. It should be noted that both DEC and DEP responded
24 to the exact same semi-annual data request, in the same manner, for completed

1 outages for calendar years 2020 through 2022. There have been no objections
2 to the data provided over the past three years until now.

3 Once again, Public Staff should not be permitted to hold over any
4 test-period outages or corresponding replacement power costs. Public Staff has
5 had numerous opportunities to raise its concern and subsequently revise its own
6 data request, considering the number of years the semi-annual request has been
7 in place. As the Company has indicated on many occasions, the Company is
8 available to meet (and will make every reasonable effort to accommodate Public
9 Staff's schedule) to discuss the Company's outage process and documentation
10 it now seeks to receive as part of its semi-annual data request going forward.

11 Certainly, the Public Staff is not limited to the semi-annual data request.
12 The Commission issued a scheduling order in this Docket wherein the
13 Commission establishes the discovery period. Separate and apart from the semi-
14 annual data request or in response thereto, the Public Staff could have issued
15 discovery for additional outage documentation, explanation, and further
16 clarification to complete its investigation of test -period outages, and in fact,
17 Public Staff did issue substantial discovery regarding test-period outages, as
18 further detailed below.

19 **Q. SHOULD THE PUBLIC STAFF BE ALLOWED TO KEEP ITS**
20 **INVESTIGATION OF OUTAGES OPEN BEYOND THE TEST PERIOD?**

21 A. No. Company maintains that it was responsive to the semi-annual outage request
22 and subsequent- discovery, as the Public Staff was provided all outage information
23 it asked for within the discovery period. Public Staff propounded extensive outage
24 discovery including a request for *outage report, root cause analysis, contributory*

1 *cause analysis, internal memos, vendor OEM findings or other like/similar*
2 *documentation that provides context to the underpinnings of the outage/event* for
3 eleven outages between Belews Creek and W.S. Lee. The Company provided
4 requested documentation and detailed narratives. More specifically, during the
5 discovery period for this fuel case, the Company provided the following
6 information regarding outages to the Public Staff:

7 Public Staff Data Request (“PSDR”) **Set No. 7**, served on DEC 3/27; DEC
8 responded on 4/7. Initial information on 11 outages at Belews Creek and W.S.
9 Lee.

10 **PSDR Set No. 8**, served on DEC 3/27; DEC responded on 4/6. Standard outage
11 information on all DEC outages for the test-period.

12 **PSDR Set No. 21**, served on DEC 4/20; DEC responded on 4/27. Detailed
13 information on the Belews Creek 2 outage that began on 4/22/22.

14 **PSDR Set No. 22**, served on DEC 4/21; DEC responded on 4/28. Detailed
15 information on the Belews Creek 2 outage that began on 5/8/22.

16 **PSDR Set No. 23**, served on DEC 4/24; DEC responded on 5/1. Detailed
17 information on the Belews Creek 2 outage that began on 8/31/22.

18 There is no basis for the Public Staff to keep outages open beyond the test-period
19 when the Company has responded to all requests presented. All test-period
20 outages should be considered reviewed and complete at the end of this proceeding.

21 Accordingly, the Company’s position is that Public Staff should not be allowed to
22 extend its investigation.

1 **Q. DID THE COMPANY PROVIDE ALL REQUESTED INFORMATION**
2 **TO THE PUBLIC STAFF AND MADE ITSELF AVAILABLE FOR**
3 **FOLLOW UP CONVERSATIONS FOR ISSUES?**

4 A. Yes. The Company provided all requested information, as listed above in the
5 testimony, and made itself available for follow up discussions as requested. As
6 Mr. Lawrence states in his testimony on page 16, the Company had to reschedule
7 the April 14, 2023, phone call. The Company requested to reschedule that call
8 because a key subject matter expert was unavailable, in response to such request,
9 the Public Staff stated that they were “just too busy” to meet. The Public Staff did
10 not indicate that April 14, 2023, was the only time Public Staff would be available
11 to meet, nor did it provide alternative dates or times. The Company would suggest
12 that in lieu of a meeting, the Public Staff issued the additional discovery, which
13 again the Company responded to further explain the facts and circumstances
14 regarding test period outages in question.

15 **Q. WHAT OTHER REASONS WERE PROVIDED BY WITNESS**
16 **LAWRENCE FOR THE DEFERRAL OF CONSIDERATION?**

17 A Witness Lawrence also refers to the ongoing investigation in Docket M-100 Sub
18 163 and the fact that one of the outages in question extended outside of the test
19 period.

20 **Q. PLEASE COMMENT ON THESE ADDITIONAL REASONS.**

21 A. While it is true that the Commission’s cold weather investigation in Docket M-
22 100 Sub 163 remains open, that fact in itself does not alter the fuel recovery
23 construct in North Carolina, nor has the Commission provided any indication in
24 Docket M-100 Sub 163 that any further investigation in that docket obviates or

1 alters the scope of the annual fuel cost proceedings. Furthermore, while one of the
2 outages did extend beyond the test period, the Company does not agree that this
3 fact justifies deferral of consideration. The outage commenced in the test period,
4 and the full replacement power cost have been determined and Public Staff has
5 had a full opportunity to investigate the causes of that particular outage.

6 **Q. PLEASE SUMMARIZE YOUR TESTIMONY REGARDING THE**
7 **PROVISION OF OUTAGE INFORMATION AND PUBLIC STAFF'S**
8 **DISCOVERY OPPORTUNITIES.**

9 A. The Company has been fully responsive to all data requests and has made itself
10 available to Public Staff to answer any outstanding questions, including through
11 in-person meetings regarding outages occurring in the test period. The fuel cost
12 recovery construct in North Carolina establishes a timely process for the
13 consideration of fuel costs and it is the responsibility of Public Staff and
14 intervenors to conduct any necessary audit within the time parameters established
15 under law as administered by this Commission. Absent any unusual
16 circumstances or the agreement of the Company, it is not appropriate to defer
17 consideration of outages occurring in the test period to a future case. Such a
18 deferral is harmful to the Company and undermines the intended certainty of the
19 process. Public Staff's vague concerns regarding information provided and
20 meeting schedules are an insufficient basis to warrant departure from the well-
21 established practices on these issues.

22 **Q. IS THERE ANYTHING ELSE YOU WOULD LIKE TO ADD**
23 **CONCERNING THE COMPANY'S EXECUTION AND REPORTING**
24 **OF OUTAGES?**

1 A. Yes. Public Staff's findings rely heavily on outage documentation, which by
2 design is hindsight-based and self-critical in nature and are intended to identify
3 every direct and contributing cause of an incident, along with all potential avenues
4 for improvement. The reports are not designed to assess whether the actions of
5 management were reasonable and prudent given what was known at the time,
6 which is exactly what Public Staff is doing. As the Commission has determined,
7 hindsight analysis is not permitted when assessing prudence. Outside of hindsight
8 analysis, no evidence has been presented which supports Mr. Lawrence's claim
9 that these outages were preventable-i.e., the Company's actions or inactions were
10 imprudent. No evidence has been presented which supports leaving any
11 test-period outages open for further scrutiny after this case is litigated. The Public
12 Staff's hindsight conclusions are not reason enough to leave these outages, or any
13 outages, open beyond the test period. Regarding the Company's outage reporting,
14 we have provided all requested outage information to Public Staff, consistent with
15 recent practice, and provided extensive documentation and detailed responses to
16 all discovery issued in this proceeding.

17 Finally, overall, DEC has a long history of operating its fleet prudently to
18 provide safe and reliable service for the benefit of DEC's customers. We continue
19 to improve our processes and believe strongly in using lessons learned to improve
20 our operations going forward.

21 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

22 A. Yes, it does.