



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

May 18, 2020

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Docket No. E-7, Sub 1228 – Application Pursuant to G.S. 62-133.2
and Commission Rule R8-55 Relating to Fuel and Fuel-Related
Charge Adjustments for Electric Utilities

Dear Ms. Campbell:

In connection with the above-referenced docket, I transmit herewith for filing
on behalf of the Public Staff the following:

1. Testimony of Dustin R. Metz, Utilities Engineer, Electric Division;
2. Notice of Affidavit; and
3. Affidavit of Jenny X. Li, Staff Accountant, Accounting Division.

By copy of this letter, we are forwarding copies to all parties of record.

Sincerely,

/s/ Dianna W. Downey
Staff Attorney
dianna.downey@psncuc.nc.gov

DWD/cla

Attachments

Executive Director (919) 733-2435	Communications (919) 733-5610	Economic Research (919) 733-2267	Legal (919) 733-6110	Transportation (919) 733-7766
Accounting (919) 733-4279	Consumer Services (919) 733-9277	Electric (919) 733-2267	Natural Gas (919) 733-4326	Water (919) 733-5610

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1228

In the Matter of
Application of Duke Energy Carolinas,)
LLC Pursuant to G.S. 62-133.2 and)
NCUC Rule R8-55 Relating to Fuel and) PUBLIC STAFF – NORTH
Fuel-Related Charge Adjustments for) CAROLINA UTILITIES
Electric Utilities) COMMISSION

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1228

Testimony of Dustin R. Metz

On Behalf of the Public Staff

North Carolina Utilities Commission

May 15, 2020

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE**
2 **RECORD.**

3 A. My name is Dustin R. Metz. My business address is 430 North
4 Salisbury Street, Raleigh, North Carolina.

5 **Q. WHAT IS YOUR POSITION WITH THE PUBLIC STAFF?**

6 A. I am an engineer in the Electric Division of the Public Staff
7 representing the using and consuming public.

8 **Q. WOULD YOU BRIEFLY DISCUSS YOUR EDUCATION AND**
9 **EXPERIENCE?**

10 A. Yes. My education and experience are outlined in detail in
11 Appendix A of my testimony.

1 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
2 **PROCEEDING?**

3 A. The purpose of my testimony is to present the results of the Public
4 Staff's investigation and recommendations regarding the proposed
5 fuel and fuel-related cost factors for the residential, general
6 service/lighting, and industrial customers of Duke Energy Carolinas,
7 LLC (DEC or the Company), as set forth in the Company's
8 February 25, 2020, application and testimony and May 7, 2020
9 supplemental testimony.

10 **Q. WHAT ARE THE TEST AND BILLING PERIODS FOR THIS**
11 **PROCEEDING?**

12 A. For this proceeding, the test period is January 1, 2019, through
13 December 31, 2019, and the billing period is September 1, 2020,
14 through August 31, 2021.

15 **Q. PLEASE DESCRIBE THE SCOPE OF THE PUBLIC STAFF'S**
16 **INVESTIGATION.**

17 A. The Public Staff's investigation included a review of the Company's
18 test period and projected fuel and fuel-related costs and also the
19 following: (1) the Company's application, testimony, and
20 supplemental testimony and responses to Public Staff data
21 requests; (2) documents related to the performance of the
22 Company's baseload power plants, including the specific

1 performance of the Company's nuclear facilities; (3) the Company's
2 purchased power transactions; (4) the cost of renewables and
3 associated fuel prices; and (5) the Company's coal, natural gas,
4 nuclear, and reagent procurement practices and contracts.

5 **Q. PLEASE SUMMARIZE THE RESULTS OF YOUR**
6 **INVESTIGATION AND YOUR RECOMMENDATIONS.**

- 7 • The Company has correctly calculated the proposed fuel and
8 fuel-related cost factors in this proceeding.
- 9 • For the test year, the Company achieved the capacity factor
10 standard in Commission Rule R8-55(k), and calculated the
11 proposed base system average fuel factor for the billing period
12 appropriately.
- 13 • There are impacts to future fuel filings related to the Clemson
14 Combined Heat and Power (Clemson CHP) project that is a
15 contested issue in the pending DEC general rate case in Docket
16 No. E-7, Sub 1214.

17 **Q. DO YOU AGREE WITH THE COMPANY'S DETERMINATION**
18 **AND CALCULATION OF THE PROPOSED BASE SYSTEM**
19 **AVERAGE FUEL FACTOR?**

20 A. I agree with the Company's determination and calculation of the
21 proposed base system average fuel factor, EMF (experience
22 modification factor) and EMF interest for the billing period, except

1 for the impact of the steam revenue associated with the Clemson
2 CHP project on projected fuel rates, as discussed later in my
3 testimony.

4 **Q. DID THE COMPANY MEET THE STANDARDS OF COMMISSION**
5 **RULE R8-55(K) FOR THE TEST YEAR?**

6 A. For the test year, the Company met the standards of Commission
7 Rule R8-55(k) with an actual system-wide nuclear capacity factor
8 that exceeded the NERC (North American Electric Reliability
9 Corporation) weighted average nuclear capacity factor. Additionally,
10 the Company's two-year simple average of its system-wide nuclear
11 capacity factor exceeded the NERC weighted average nuclear
12 capacity factor.

13 **Q. DID THE PUBLIC STAFF REVIEW THE BILLING PERIOD OR**
14 **PROJECTED FUEL AND FUEL-RELATED COSTS AS SET**
15 **FORTH BY THE COMPANY IN THIS FILING?**

16 A. Yes. The projected fuel and reagent costs are reasonable and were
17 calculated appropriately. The projected cost of fuel and fuel-related
18 costs are affected by minor projected fluctuations in nuclear fuel,
19 coal, and natural gas costs. DEC's proposed fuel and fuel-related

1 costs are based on a 94.39% system nuclear capacity factor, which
2 is what the Company anticipates for the billing period.¹

3 **Q. PLEASE PROVIDE THE PROPOSED FUEL AND FUEL-**
4 **RELATED COST FACTORS.**

5 A. Metz Exhibit No. 1 shows the Proposed Fuel and Fuel-Related Cost
6 Factors. The Public Staff recommends approval of the fuel
7 components and total fuel factors (excluding the regulatory fee),
8 shown in Exhibit No. 1, Table 1, effective for the twelve months
9 beginning September 1, 2020.

10 Public Staff witness Li discusses the Public Staff's review of the test
11 period EMF and EMF interest in her affidavit, and I have
12 incorporated her recommendations in Metz Exhibit No. 1.

13 **Q. EARLIER IN YOUR TESTIMONY, YOU DESCRIBE THE**
14 **IMPLICATIONS OF THE CLEMSON CHP PROJECT ON FUTURE**
15 **FILINGS. PLEASE DISCUSS.**

16 A. Prior to the Company filing its application in this docket, I filed
17 supplemental testimony in DEC's pending general rate case
18 regarding the Clemson CHP project. In my rate case supplemental
19 testimony on this matter, I recommended that the Clemson CHP

¹ The Company's actual system nuclear capacity factor for the test year was 97.1%. In comparison, the most recent North American Electric Reliability Council (NERC) five-year average weighted for the size and type of reactors in DEC's nuclear fleet was 91.6% during the test period.

1 project be removed from North Carolina retail rate base. The
2 Company sells process steam to Clemson University from the
3 Clemson CHP, and the revenues received from the steam sales will
4 be an offset to fuel costs in DEC's annual fuel proceedings. Since
5 this issue is still pending before the Commission in the general rate
6 case, the projected billing period revenues from the steam sales are
7 included in this fuel proceeding. However, it is possible that in future
8 annual fuel cases, the steam revenues will need to be adjusted or
9 removed from North Carolina retail cost of service as an offset to
10 fuel-related costs, depending on the Commission's final decision in
11 the Sub 1214 general rate case.

12 **Q. HAVE YOU REVIEWED THE COMPANY'S CALCULATIONS FOR**
13 **THE CLEMSON STEAM SALE REVENUES INCLUDED IN THE**
14 **BILLING PERIOD IN THIS CASE?**

15 A. Yes.

16 **Q. ARE THE STEAM REVENUES IN THIS CASE AN ESTIMATE**
17 **FOR THE BILLING PERIOD?**

18 A. Yes. The actual steam revenues will be trued up in future.

19 **Q. ARE THE COMPANY'S CALCULATIONS FOR THE STEAM**
20 **SALES REVENUES CONSISTENT WITH THE STEAM**
21 **CONTRACT PROVISIONS?**

22 A. Yes.

1 **Q. ARE THE STEAM REVENUES BASED ON THE ACTUAL**
2 **DELIVERED PRICE OF NATURAL GAS TO THE CLEMSON**
3 **CHP?**

4 A. No, they are not. Under the Clemson CHP steam contract, the
5 steam revenues are based on the NYMEX Henry Hub (HH) price of
6 natural gas, along with a tiered multiplier based on the annual
7 amount of steam purchased by Clemson University. I discuss the
8 steam contract in more detail in my supplemental testimony in the
9 rate case.

10 **Q. WHAT CHANGES TO THE STEAM SALES REVENUES ARE**
11 **YOU PROPOSING IN THIS PROCEEDING?**

12 A. I am not proposing any changes at this time. However, depending
13 on the Commission's determination in the pending general rate case
14 regarding whether the cost of Clemson CHP Project should be
15 included in North Carolina retail rates, there may be required
16 adjustments in future annual fuel rider proceedings.

17 **Q. PLEASE EXPLAIN WHAT FUTURE ADJUSTMENTS YOU**
18 **BELIEVE MAY BE APPROPRIATE DEPENDING ON HOW THE**
19 **COMMISSION TREATS THE CLEMSON CHP PROJECT IN THE**
20 **PENDING GENERAL RATE CASE.**

21 A. If the Commission finds that the capital costs of the Clemson CHP
22 Project are reasonable and prudent and should be recovered from

1 North Carolina retail customers, a full allocable portion of the
2 associated fuel costs and steam revenues would flow through the
3 annual fuel rider. If, however, the Commission excludes the capital
4 costs of the Clemson CHP project from recovery, the associated
5 steam revenues should be removed from the annual fuel rider,
6 beginning with the EMF in the next fuel proceeding.

7 It is also possible that the Commission's ruling in the rate case
8 addresses the reasonableness and prudence of the capital costs,
9 but not the steam revenue from the steam sale contract. In that
10 case, in the next fuel proceeding, the Public Staff would likely
11 challenge the amount of steam revenue in the steam sale contract
12 and recommend that revenues be imputed to cover the full capital
13 costs of the Clemson CHP project.

14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

15 A. Yes, this concludes my testimony.

QUALIFICATIONS AND EXPERIENCE

DUSTIN R. METZ

Through the Commonwealth of Virginia Board of Contractors, I hold a current Tradesman License certification of Journeyman and Master within the electrical trade, awarded in 2008 and 2009 respectively. I graduated from Central Virginia Community College, receiving Associate of Applied Science degrees in Electronics and Electrical Technology (Magna Cum Laude) in 2011 and 2012 respectively, and an Associate of Arts in Science in General Studies (Cum Laude) in 2013. I graduated from Old Dominion University in 2014, earning a Bachelor of Science degree in Engineering Technology with a major in Electrical Engineering and a minor in Engineering Management.

I have over twelve years of combined experience in engineering, electromechanical system design, troubleshooting, repair, installation, commissioning of electrical and electronic control systems in industrial and commercial nuclear facilities, project planning and management, and general construction experience. My general construction experience includes six years of employment with Framatome, where I provided onsite technical support, craft oversight, and engineer design change packages, as well as participated in root cause analysis teams at commercial nuclear power plants, including plants owned by both Duke and Dominion and an

additional six years of employment with an industrial and commercial construction company, where I provided field fabrication and installation of electrical components that ranged from low voltage controls to medium voltage equipment, project planning and coordination with multiple work groups, craft oversight, and safety inspections.

I joined the Public Staff in the fall of 2015. Since that time, I have worked on general rate cases, fuel cases, applications for certificates of public convenience and necessity, service and power quality, customer complaints, North American Electric Reliability Corporation (NERC) Reliability Standards, nuclear decommissioning, National Electric Safety Code (NESC) Subcommittee 3 (Electric Supply Stations), avoided costs and PURPA, interconnection procedures, integrated resource planning, and power plant performance evaluations. I have also participated in multiple technical working groups and been involved in other aspects of utility regulation.

EXHIBIT 1

**Proposed Fuel and Fuel-Related Cost Factors in cents per kWh
effective September 1, 2020
(excludes regulatory fee)**

**TABLE 1 – Company PROPOSED Fuel and Fuel-Related Cost Factors
(¢ per kWh)**

Rate Class	Base & Prospective	EMF	EMF Interest	Total Fuel Factor
Residential	1.6027	0.0364	0	1.6391
General Service/Lighting	1.7583	0.0666	0	1.8249
Industrial	1.6652	0.2658	0	1.9310

For comparison, Table 2 below provides the existing fuel and fuel-related cost factors (excluding the regulatory fee) approved in Docket No. E-7, Sub 1190:

TABLE 2 – EXISTING Fuel and Fuel-Related Cost Factors (¢ per kWh)

Rate Class	Base & Prospective	EMF	EMF Interest	Total Fuel Factor
Residential	1.8126	0.1375	0	1.9501
General Service/Lighting	1.9561	0.0927	0	2.0488
Industrial	1.8934	0.2089	0	2.1023

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1228

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application of Duke Energy Carolinas, LLC)
Pursuant to N.C.G.S. § 62-133.2 and)
Commission Rule R8-55 Relating to Fuel) NOTICE OF AFFIDAVIT
and Fuel-Related Charge Adjustments for)
Electric Utilities)

NOW COMES THE PUBLIC STAFF - North Carolina Utilities Commission,
by and through its Executive Director, Christopher J. Ayers, as constituted by
N.C. Gen. Stat. § 62-15, and gives notice that the Affidavit of:

Jenny X. Li, Staff Accountant, Accounting Division
Public Staff - North Carolina Utilities Commission
430 North Salisbury Street - Dobbs Building
4326 Mail Service Center
Raleigh, North Carolina 27699-4300

will be used in evidence at the hearing in this docket scheduled for June 9, 2020,
pursuant to N.C. Gen. Stat. § 62-68. The affiant will not be called to testify orally
and will not be subject to cross-examination unless an opposing party or the
Commission demands the right of cross-examination by notice mailed or delivered
to the proponent at least five days prior to the hearing, pursuant to N.C. Gen. Stat.
§ 62-68.

THEREFORE, the Public Staff moves that the Affidavit of Jenny X. Li be
admitted into evidence in the absence of notice pursuant to N.C. Gen. Stat. § 62-68.

Respectfully submitted this the 18th day of May, 2020.

PUBLIC STAFF
Christopher J. Ayers
Executive Director

David T. Drooz
Chief Counsel

Electronically submitted
/s/ Dianna W. Downey
Staff Attorney
dianna.downey@psncuc.nc.gov

430 North Salisbury Street - Dobbs Building
4326 Mail Service Center
Raleigh, North Carolina 27699-4300
Telephone: (919) 733-6110

CERTIFICATE OF SERVICE

I certify I have this day served a copy of the foregoing Notice of Affidavit and Affidavit on each of the parties of record in this proceeding or their attorneys of record by causing a copy to be deposited in the United States Mail, postage prepaid, properly addressed to each or by electronic delivery upon agreement from the parties.

This the 18th day of May, 2020.

Electronically submitted
/s/ Dianna W. Downey
Staff Attorney

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1228

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application of Duke Energy Carolinas, LLC)	<u>AFFIDAVIT</u>
Pursuant to N.C.G.S. § 62-133.2 and)	<u>OF</u>
Commission Rule R8-55 Relating to Fuel and)	<u>JENNY X. LI</u>
Fuel-Related Charge Adjustments for Electric)	
Utilities)	

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, Jenny X. Li, first being duly sworn, do depose and say:

I am a Staff Accountant with the Electric Section of the Accounting Division of the Public Staff - North Carolina Utilities Commission. A summary of my education and experience is attached to this affidavit as Appendix A.

The purpose of my affidavit is to present the results of the Public Staff's investigation of the Experience Modification Factor (EMF) riders proposed by Duke Energy Carolinas, LLC (DEC or the Company) in this proceeding. The EMF riders are utilized to "true-up," by customer class, the recovery of fuel and fuel-related costs incurred during the test year. DEC's test year in this fuel proceeding is the twelve months ended December 31, 2019.

In its application, filed on February 26, 2020, DEC proposed EMF increment riders in cents per kilowatt-hour (kWh), excluding the North Carolina regulatory fee, for each North Carolina retail customer class, as follows:

Residential	0.1574 cents per kWh
General Service/Lighting	0.1510 cents per kWh
Industrial	0.3067 cents per kWh

On May 7, 2020, DEC filed the Supplemental Testimony of Kimberly D. McGee with Revised McGee Exhibits and supporting workpapers. Witness McGee’s supplemental testimony and revised exhibits reflect the impact of two updates to numbers presented in witness McGee’s direct exhibits and workpapers.

They are as follows:

- (1) To update the EMF increment to incorporate the fuel and fuel-related cost recovery balance for January through March 2020, pursuant to Commission Rule R8-55(d)(3). The reported over-recovery included in the update, although included in this proceeding, would be reviewed as part of next year’s fuel and fuel-related cost proceeding; and,
- (2) To include a revised projected net(gain)/loss on the sale of steam which is included in estimated system fuel and fuel-related costs for the billing period.

Revised McGee Exhibit 1 included in witness McGee’s supplemental testimony sets forth the Company’s revised proposed EMF increment riders in cents per kilowatt-hour (kWh), excluding the North Carolina regulatory fee, for each North Carolina retail customer class, as follows:

Residential	0.0364 cents per kWh
General Service/Lighting	0.0666 cents per kWh

Industrial 0.2658 cents per kWh

In witness McGee's Revised Exhibits filed on May 7, 2020, DEC's proposed revised under-recovery of fuel for each of the North Carolina retail customer classes is as follows:

Residential	\$ 8,172,161
General Service/Lighting	\$15,770,030
Industrial	\$33,198,354

The revised riders were calculated by dividing the fuel cost under-recoveries by DEC's normalized test year N.C. retail sales of 22,444,481 megawatt-hours (MWh) for the residential class, 23,688,550 MWh for the general service/lighting class, and 12,489,508 MWh for the industrial class.

The Public Staff's investigation included procedures intended to evaluate whether the Company properly determined its per books fuel and fuel-related costs and revenues during the test period. These procedures included a review of the Company's filing, prior Commission orders, the Monthly Fuel Reports filed by the Company with the Commission, and other Company data provided to the Public Staff. The Public Staff also reviewed certain specific types of expenditures impacting the Company's test year fuel and fuel-related costs, including reagents (limestone, ammonia, urea, etc.), renewable energy, and purchased power, as well as reviews of source documentation of fuel and fuel-related costs for certain selected Company generation resources. Performing the Public Staff's investigation required the review of numerous responses to written and verbal data requests, and several telephone conferences with Company representatives.

As a result of the Public Staff's investigation, I am recommending that DEC's EMF riders for each customer class be based on net fuel and fuel-related cost under-recoveries of \$8,172,161 for the residential class, \$15,770,030 for the general service/lighting class, and \$33,198,354 for the industrial class, and normalized North Carolina retail sales of 22,444,481 MWh for the residential class, 23,688,550 MWh for the general service/lighting class, and 12,489,508 MWh for the industrial class, as proposed by the Company. These amounts produce EMF increment riders for each North Carolina retail customer class as follows, excluding the regulatory fee:

Residential	0.0364 cents per kWh
General Service/Lighting	0.0666 cents per kWh
Industrial	0.2658 cents per kWh

I have provided these amounts to Public Staff witness Dustin Metz for incorporation into his recommended final fuel factor.

This completes my affidavit.

Jenny Li

Jenny X. Li

Sworn to and subscribed before me
this the 15th day of May, 2020.

Shannon Desouza
Notary Public



My Commission Expires: 1.5.2025

Jenny X. Li

I graduated from North Carolina State University with a Bachelor of Science degree in Accounting.

I joined the Public Staff Accounting Division in August 2016 as a Staff Accountant. I am responsible for the performance of the following activities: (1) the examination and analysis of testimony, exhibits, books and records, and other data presented by utilities and other parties under the jurisdiction of the Commission or involved in Commission proceedings; and (2) the preparation and presentation to the Commission of testimony, exhibits, and other documents in those proceedings.

Since joining the Public Staff, I have filed affidavits in Duke Energy Carolinas, LLC (DEC) fuel rider, Duke Energy Progress, LLC (DEP) fuel rider, Dominion Energy North Carolina REPS rider. I have also assisted on several electric cases and performed reviews in Duke Energy Carolinas, LLC (DEC), Duke Energy Progress, LLC (DEP) rate cases. I have also performed reviews of DEC's Existing DSM Program Rider and BPM/NFPTP Rider; Western Carolina University's PPA Rider and New River Light and Power Company's PPA Factor.

Prior to joining the Public Staff, I was employed by MDU Enterprises Inc. and Neusoft America Inc. My duties there varied from examining various financial statements to supervising accounting and assisting external audits.