

**PUBLIC STAFF OF THE
NORTH CAROLINA
UTILITIES COMMISSION**

August 24, 2022

VIA ELECTRONIC SUBMISSION ONLY

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

Re: Docket No. E-2, Sub 1292 – Application of Duke Energy Progress, LLC,
Pursuant to N.C. Gen. Stat. 62-133.2 and Commission Rule R8-55 Relating to
Fuel and Fuel-Related Charge Adjustments for Electric Utilities

Dear Ms. Dunston:

I hope this finds you doing well. In connection with the above-referenced docket, I transmit herewith for filing on behalf of the Public Staff the following:

1. Notice of Affidavit of Fenge Zhang, Financial Analyst III, Accounting Division;
2. Affidavit of Fenge Zhang, Financial Analyst III, Accounting Division;
3. Notice of Affidavit of Dustin Metz, Engineer, Energy Division; and
4. Affidavit of Dustin Metz, Engineer, Energy Division.

By copy of this letter, I am serving same on all parties of record by electronic delivery.

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Consumer Services
(919) 733-9277

Economic Research
(919) 733-2267

Energy
(919) 733-2267

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(919) 733-6110

Transportation
(919) 733-7766

Water/Telephone
(919) 733-5610

Ms. A. Shonta Dunston, Chief Clerk
August 24, 2022
Page 2 of 2

Thank you for your attention. Please let me know if you would like additional information or to discuss this matter further.

With kind regards,

/s/ William Freeman, by electronic filing
William S. F. Freeman
William E. H. Creech
Staff Attorneys

Attachments as described

cc via email w/ attachments:
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**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1292

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

NOW COMES THE PUBLIC STAFF of the 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:

Fenge Zhang, Financial Analyst III, Accounting Division
Public Staff of the 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 September 14, 2022, pursuant to N.C.G.S. § 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.G.S. § 62-68.

THEREFORE, the Public Staff moves that the Affidavit of Fenge Zhang be admitted into evidence in the absence of notice pursuant to N.C.G.S. § 62-68.

Respectfully submitted this the 24th day of August, 2022.

PUBLIC STAFF

Christopher J. Ayers
Executive Director

Lucy E. Edmondson
Chief Counsel

/s/ William Freeman, by electronic filing
William S. F. Freeman
email: William.Freeman@psncuc.nc.gov
William E. H. Creech
email: Zeke.Creech@psncuc.nc.gov
Staff Attorneys

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

CERTIFICATE OF SERVICE

I certify that I have caused to be served a copy of the foregoing on all the parties of record on the date set forth below in the manner set forth below on the person(s) set forth below and in accordance with the applicable jurisprudence, especially Commission Rule R1-39.

Served on August 24, 2022, via email electronic delivery by agreement of the receiving party, upon those persons identified in the Commission's online docket's service list as follows:

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/s/ William Freeman, by electronic filing
William S. F. Freeman
Staff Attorney

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1292

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

STATE OF NORTH CAROLINA)
)
COUNTY OF WAKE)

I, Fenge Zhang, first being duly sworn, do depose and say:

I am a Financial Analyst III in the Accounting Division of the Public Staff of the 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 Progress, LLC (DEP 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. DEP's test year in this fuel proceeding is the twelve months ended March 31, 2022.

In its application filed on June 14, 2022, DEP proposed EMF increment riders in cents per kilowatt-hour (¢ per kWh), excluding the North Carolina

regulatory fee, for each North Carolina retail customer class, as shown in the table below:

Rate Class	EMF
Residential	0.489 ¢ per kWh
Small General Service	0.371 ¢ per kWh
Medium General Service	0.540 ¢ per kWh
Large General Service	0.756 ¢ per kWh
Lighting	0.776 ¢ per kWh

On August 12, 2022, DEP filed the Supplemental Testimony of Dana M. Harrington with Revised Harrington Exhibits and supporting workpapers. Witness Harrington's supplemental testimony and revised exhibits reflect the impact of three updates to numbers presented in witness Harrington's direct exhibits and workpapers. A summary of those updates is as follows:

- (1) An update to the EMF increments and decrements to incorporate the fuel and fuel-related cost recovery balances for April through June 2022, pursuant to Commission Rule R8-55(d)(3). The reported underrecovery included in the update, although included in this proceeding, would be reviewed as part of next year's fuel and fuel-related cost proceeding;

(2) A correction to customer growth adjustment to remove a customer from the customer growth calculation due to a discovery that one South Carolina Medium General Service customer that had a name change was not a new customer; and

(3) An update to fuel and fuel-related costs to reflect a reduction in cost as a result of the 2.5% purchased power test described in subsections (4), (5), (6), (10) and (11) of N.C. Gen. Stat. § 62-133.2(a1) and § 62-133.2(a2).

In witness Harrington's Revised Exhibits filed on August 12, 2022, DEP's proposed revised underrecovery of fuel for each of the North Carolina retail customer classes is as follows:

Residential	\$108,941,580
Small General Service	\$ 8,781,456
Medium General Service	\$ 61,349,694
Large General Service	\$ 73,664,346
Lighting	\$ 2,671,637

The revised riders were calculated by dividing the fuel and fuel-related cost underrecoveries by DEP's normalized test year North Carolina retail sales of 16,792,596 megawatt-hours (MWh) for the residential class, 1,956,415 MWh for the small general service class, 10,468,785 MWh for the medium general service class, 8,202,098 MWh for the large general service class, and 320,322 MWh for the lighting class.

Revised Harrington Exhibit 1 sets forth the Company's revised proposed EMF increment riders in cents per kWh, excluding the North Carolina regulatory fee, for each North Carolina retail customer class, as shown in the table below:

Rate Class	EMF
Residential	0.649 ¢ per kWh
Small General Service	0.449 ¢ per kWh
Medium General Service	0.586 ¢ per kWh
Large General Service	0.898 ¢ per kWh
Lighting	0.834 ¢ per kWh

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, 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 for 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 DEP's EMF increment rates for each customer class be based on net fuel and fuel-related cost underrecoveries of \$108,941,580 for the residential class, \$8,781,456 for the small general service class, \$61,349,694 for the medium general service class, \$73,664,346 for the large general service class, and \$2,671,637 for the lighting class, and normalized North Carolina retail sales of 16,792,596 MWh for the residential class, 1,956,415 MWh for the small general service class, 10,468,785 MWh for the medium general service class, 8,202,098 MWh for the large general service class, and 320,322 MWh for the lighting class. These amounts produce the EMF increment rates for each North Carolina retail customer class (excluding the North Carolina regulatory fee) set forth in the table below:

Rate Class	EMF
Residential	0.649 ¢ per kWh
Small General Service	0.449 ¢ per kWh
Medium General Service	0.586 ¢ per kWh
Large General Service	0.898 ¢ per kWh
Lighting	0.834 ¢ 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.

Fenge Zhang
Fenge Zhang

Sworn to and subscribed before me
this the 24th day of August, 2022.

Joanne M. Berubé
Joanne M. Bérubé
Notary Public for the State of North Carolina
My Commission Expires: December 17, 2022

Joanne M. Berube
NOTARY PUBLIC
WAKE COUNTY, N.C.
My Commission Expires 12-17-2022.

QUALIFICATIONS AND EXPERIENCE

FENGE ZHANG

I graduated from North Carolina State University with a Bachelor of Science degree and a Master's degree in Accounting. I am a Certified Public Accountant. I am a Financial Analyst III with the Public Staff of North Carolina Utilities Commission.

As a Financial Analyst III with the Accounting Division of the Public Staff, I am responsible for the performance, supervision, and management of the following activities: (1) the examination and analysis of testimony, exhibits, books and records, and other data presented by utilities and other parties who are subject to 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.

I was first employed by the Public Staff in March 2012. Then in 2016, I was began employment with the Commission until I returned to Public Staff employment in May 2022. Throughout this time, I have been involved in audit and review of various topics related to the regulated telephone, water, sewer, electric and natural gas industries, including the most recent general rate cases for Carolina Water Service, Inc. of North Carolina in 2021 and Aqua North Carolina, Inc. in 2019. I have also filed and assisted with the Demand Side Management

and Energy Efficiency riders, electric fuel rider cases, gas annual reviews, and lead lag studies.

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1292

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

NOW COMES THE PUBLIC STAFF of the 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:

Dustin R. Metz, Engineer, Energy Division
Public Staff of the 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 September 14, 2022, pursuant to N.C.G.S. § 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.G.S. § 62-68.

THEREFORE, the Public Staff moves that the Affidavit of Dustin R. Metz be admitted into evidence in the absence of notice pursuant to N.C.G.S. § 62-68.

Respectfully submitted this the 24th day of August, 2022.

PUBLIC STAFF

Christopher J. Ayers
Executive Director

Lucy E. Edmondson
Chief Counsel

/s/ William Freeman, by electronic filing
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William E. H. Creech
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Staff Attorneys

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CERTIFICATE OF SERVICE

I certify that I have caused to be served a copy of the foregoing on all the parties of record on the date set forth below in the manner set forth below on the person(s) set forth below and in accordance with the applicable jurisprudence, especially Commission Rule R1-39.

Served on August 24, 2022, via email electronic delivery by agreement of the receiving party, upon those persons identified in the Commission's online docket's service list as follows:

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/s/ William Freeman, by electronic filing
William S. F. Freeman
Staff Attorney

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1292

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	AFFIDAVIT
Application of Duke Energy Progress, LLC,)	OF
Pursuant to G.S. 62-133.2 and NCUC Rule)	DUSTIN R. METZ
R8-55 Relating to Fuel and Fuel-Related)	
Charge Adjustments for Electric Utilities)	

STATE OF NORTH CAROLINA)
)
 COUNTY OF WAKE)

PERSONALLY APPEARED BEFORE ME the undersigned Dustin R. Metz, who is known to me, who being first being duly sworn or affirmed, deposes and states the following under oath:

I am an engineer with the Energy Division of the Public Staff of the North Carolina Utilities Commission. A summary of my education and experience is attached to this affidavit as Appendix A.

The purpose of this affidavit is to present the Public Staff's recommendations regarding the proposed fuel and fuel-related cost factors for the residential, small general service, medium general service, large general service, and lighting customers of Duke Energy Progress, LLC (DEP or the Company), as set forth in the Company's June 14, 2022, application and testimony, and August 12, 2022 supplemental testimony and revised exhibits. I have reviewed DEP's application, its prefiled testimony and exhibits, fuel-related costs, test period baseload power plant performance reports, the current coal,

natural gas, and nuclear fuel markets, and various documents related to test year power plant outages and purchased power costs. I have also reviewed the affidavit of Public Staff witness Fenge Zhang.

For this proceeding, the test period is April 1, 2021, through March 31, 2022, and the billing period is December 1, 2022, through November 30, 2023.

Of particular concern to the Public Staff in its investigation of the test year fuel costs was the significant under-recovery that took place during the test year. After reviewing discovery and discussing the issue with DEP employees and the recent trends in commodity prices, the Public Staff is satisfied that the 2022 test year fuel costs were reasonable and prudently incurred.

I believe the projected fuel and reagent prices set forth in the testimony of Company witnesses were calculated appropriately for purposes of this proceeding. DEP's proposed fuel and fuel-related costs are based on a 94.05% system nuclear capacity factor.¹ Based on my investigation, I have determined that the projected fuel and fuel-related costs set forth in DEP's testimony, and the prospective components of the total fuel factor, have been calculated in accordance with the requirements of N.C. Gen. Stat. § 62-133.2. Eight months of next year's test period will have passed before the billing period in this case begins, which creates a high potential of continued under-recovery if commodity prices remain at their current elevated levels.

¹ The Company's actual system nuclear capacity factor for the test year was 93.99%. In comparison, the 2016-2020 North American Electric Reliability Council (NERC) five-year average weighted for the size and type of reactors in DEP's nuclear fleet was 93.49%. The Company's projection for the billing period is slightly higher than the NERC five-year weighted average but is not unreasonable given historic performance and no major unit outages.

Public Staff witness Zhang describes the Public Staff's review of the test period Experience Modification Factor in her affidavit, and I have incorporated her recommendations in Table 1 below.

The Public Staff recommends approval of the fuel components and total fuel factors (excluding the regulatory fee) shown in Table 1:

TABLE 1 – Total Proposed Fuel and Fuel-Related Cost Factors (¢ per kWh)

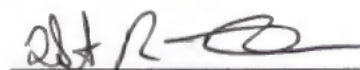
Rate Class	Base & Prospective	EMF and EMF Interest	Total Fuel Factor
Residential	2.808	0.649	3.457
Small General Service	3.097	0.449	3.546
Medium General Service	2.580	0.586	3.166
Large General Service	2.138	0.898	3.036
Lighting	3.376	0.834	4.210

For comparison, Table 2 below provides the existing fuel and fuel-related cost factors (excluding the regulatory fee) approved in Docket No. E-2, Sub 1272:

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

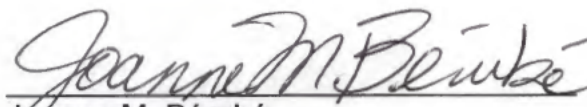
Rate Class	Base & Prospective	EMF	Total Fuel Factor
Residential	2.126	0.245	2.371
Small General Service	2.111	0.186	2.297
Medium General Service	2.169	0.235	2.404
Large General Service	2.019	0.508	2.527
Lighting	1.682	0.336	2.018

This completes my affidavit.



 Dustin R. Metz

Sworn to and subscribed before me this the 24th day of August, 2022.



 Joanne M. Bérubé
 Notary Public for the State of North Carolina
 My Commission Expires: December 17, 2022

Joanne M. Berube NOTARY PUBLIC WAKE COUNTY, N.C. My Commission Expires 12-17-2022.

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 completed engineering graduate course work in 2019 and 2020 at North Carolina State University.

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. I also worked for six years for 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 both electric and natural gas matters including general rate cases, fuel cases, annual gas cost reviews, 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.