

October 18, 2018

VIA ELECTRONIC FILING

Ms. M. Lynn Jarvis, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Progress, LLC and Public Staff's Joint Proposed Order
Docket No. E-2, Sub 1173**

Dear Ms. Jarvis:

Attached for filing in the above-referenced docket is the Joint Proposed Order, which is being submitted on behalf of both Duke Energy Progress, LLC and the Public Staff. An electronic copy is also being sent to briefs@ncuc.net.

If you have any questions, please let me know.

Sincerely,

Electronically submitted
s/ Dwight W. Allen

Enclosure

cc: Parties of Record

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1173

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
)	
Application of Duke Energy Progress, LLC Pursuant to G.S. 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments for Electric Utilities)	JOINT PROPOSED ORDER OF DUKE ENERGY PROGRESS, LLC AND THE PUBLIC STAFF

HEARD: Tuesday, September 18, 2018, at 9:30 a.m. in the Commission Hearing Room, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding
Commissioner ToNola D. Brown-Bland
Commissioner Jerry C. Dockham
Commissioner James G. Patterson
Commissioner Lyons Gray
Commissioner Daniel G. Clodfelter
Commissioner Charlotte A. Mitchell

APPEARANCES:

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For the Using and Consuming Public:

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BY THE COMMISSION: On June 20, 2018, Duke Energy Progress, LLC (“Duke Energy Progress,” “DEP,” or the “Company”), filed an application pursuant to N.C. Gen. Stat. § 62-133.2 and Commission Rule R8-55 regarding fuel and fuel-related cost adjustments for electric utilities, along with the testimony and exhibits of Kendra A. Ward, Eric S. Grant, Joseph A. Miller, Jr., Kelvin Henderson, and Kenneth D. Church.

Petitions to intervene were filed by the North Carolina Sustainable Energy Association (“NCSEA”) on June 28, 2018, by Carolina Industrial Group for Fair Utility Rates II (“CIGFUR”) on July 3, 2018, and by Carolina Utility Customers Association, Inc. (“CUCA”) on July 19, 2018. The Commission granted NCSEA’s petition to intervene on June 29, 2018, CIGFUR’s petition to intervene on July 6, 2018, and CUCA’s petition to intervene on July 24, 2018.

On July 2, 2018, the Commission entered an *Order Scheduling Hearing, Requiring Filing of Testimony, Establishing Discovery Guidelines, and Requiring Public Notice*. That order provided that direct testimony of intervenors should be filed on September 4, 2018, that rebuttal testimony should be filed on September 12, 2018, and that a hearing on this matter would be held on September 18, 2018.

The intervention of the Public Staff is recognized pursuant to N.C. Gen. Stat. § 62-15(d) and Commission Rule R1-19(e). On September 13, 2018, DEP filed affidavits of publication indicating that public notice had been provided in accordance with the Commission's procedural order issued on July 2, 2018. On August 29, 2018, the Public Staff filed the affidavit of Jenny X. Li and the affidavit of Dustin R. Metz, in accordance with N.C. Gen. Stat. § 62-68. On September 10, 2018, DEP filed a motion requesting that DEP witnesses Kendra A. Ward, Eric Grant, Kenneth D. Church, Kelvin Henderson and Joseph A. Miller, Jr., be excused from appearance at the evidentiary hearing, representing that all parties to the proceeding had agreed to waive cross-examination of the witnesses. On September 12, 2018, the Commission granted the motion, excusing DEP witnesses Ward, Grant, Miller, Henderson, and Church from appearing at the evidentiary hearing.

The case came on for hearing as scheduled on September 18, 2018. The application, prefiled direct testimony and exhibits of DEP's witnesses and the prefiled affidavits of the Public Staff's witnesses were received into evidence. No other party presented witnesses, and no public witnesses appeared at the hearing. The Public Staff and DEP filed a joint proposed order on October 18, 2018.

Based upon the Company's verified application, the testimony, affidavits, and exhibits received into evidence at the hearing, the affidavits of the Public Staff and the record as a whole, the Commission makes the following:

FINDINGS OF FACT

1. Duke Energy Progress is a duly organized corporation existing under the laws of the State of North Carolina, is engaged in the business of developing, generating, transmitting, distributing, and selling electric power to the public in North Carolina, and is subject to the jurisdiction of the Commission as a public utility. Duke Energy Progress is lawfully before this Commission based upon its application filed pursuant to N.C. Gen. Stat. § 62-133.2.

2. The test period for purposes of this proceeding is the 12 months ended March 31, 2018 ("test period").

3. In its application and testimony in this proceeding, DEP requested a total increase of \$226 million to its North Carolina retail revenue requirement associated with fuel and fuel-related costs, excluding the regulatory fee. The fuel and fuel-related cost factors requested by DEP included Experience Modification Factor ("EMF") riders to take into account fuel and fuel-related cost under-recoveries experienced during the test period of \$224. This includes the deferred under-recovered balance of \$42 million carried forward from the prior year's filing in Docket No. E-2, Sub 1146.

4. The Company's baseload plants were generally managed prudently and efficiently during the test period so as to minimize fuel and fuel-related costs.

5. The Company's fuel and reagent procurement and power purchasing practices during the test period were reasonable and prudent.

6. The test period per book system sales are 62,453,151 megawatt-hours (“MWh”). The test period per book system generation (net of auxiliary use and joint owner generation) and purchased power is 70,851,204 MWh and is categorized as follows:

<u>Net Generation Type</u>	<u>MWh</u>
Coal	9,240,778
Natural Gas, Oil and Biomass	22,933,359
Nuclear	29,666,537
Hydro – Conventional	587,221
Solar	247,821
Purchased Power – subject to economic dispatch or curtailment	3,549,071
Other Purchased Power	<u>4,626,417</u>
Total Net Generation (may not add to sum due to rounding)	70,851,204

7. The appropriate nuclear capacity factor for use in this proceeding is 94.1%.

8. The North Carolina retail test period sales, adjusted for customer growth and weather, for use in calculating the EMF are 37,259,304 MWh. The adjusted North Carolina retail customer class MWh sales are as follows:

<u>N.C. Retail Customer Class</u>	<u>Adjusted MWh Sales</u>
Residential	15,621,843
Small General Service	1,891,451
Medium General Service	11,038,646
Large General Service	8,346,128
Lighting	<u>361,235</u>
Total (may not add to sum due to rounding)	37,259,304

9. The projected billing period (December 2018-November 2019) sales for use in this proceeding are 62,133,368 MWh on a system basis and 37,659,805 MWh on a North Carolina retail basis. The projected billing period North Carolina retail customer class MWh sales are as follows:

<u>N.C. Retail Customer Class</u>	<u>Projected MWh Sales</u>
Residential	15,956,916
Small General Service	1,795,996
Medium General Service	10,351,641
Large General Service	9,176,034
Lighting	<u>379,219</u>
Total (may not add to sum due to rounding)	37,659,805

10. The projected billing period system generation and purchased power for use in this proceeding in accordance with projected billing period system sales is 68,667,857 MWh and is categorized as follows:

<u>Generation Type</u>	<u>MWh</u>
Coal	5,721,568
Gas Combustion Turbine (“CT”) and Combined Cycle (“CC”)	22,506,145
Nuclear	29,210,311
Hydro	606,686
Solar	304,154
Purchased Power	<u>10,318,993</u>
Total (may not add to sum due to rounding)	68,667,857

11. The appropriate fuel and fuel-related prices and expenses for use in this proceeding to determine projected system fuel expense are as follows:

- A. The coal fuel price is \$33.54/MWh.
- B. The gas CT and CC fuel price is \$29.04/MWh.
- C. The appropriate expense for ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions (collectively, “Reagents”) is \$14.989.402.
- D. The total nuclear fuel price (including Joint Owners generation) is \$6.72/MWh.

- E. The total system purchased power cost (including the impact of Joint Dispatch Agreement (“JDA”) Savings Shared and the impact of House Bill 589, N.C. Sess. L. 2017-192, is \$529,383,055.
- F. System fuel expense recovered through intersystem sales is \$105,350,249.
12. The projected fuel and fuel-related costs for the North Carolina retail jurisdiction for use in this proceeding are \$844,290,141.
13. The Company’s appropriate North Carolina retail jurisdictional fuel and fuel-related expense under-collection for purposes of the EMF was \$224,334,099, consisting of under-recoveries of \$89,796,902; \$6,865,500; \$37,833,573; \$86,641,717 and \$3,196,403, for the Residential, Small General Service, Medium General Service, Large General Service, and Lighting classes, respectively. These amounts include the deferred under-recovered balance from the prior year as follows: \$21,282,684; \$1,023,834; \$17,750,323 and \$1,807,912 for the Residential, Small General Service, Large General Service, and Lighting classes, respectively.
14. The increase in customer class fuel and fuel-related cost factors from the amounts approved in Docket No. E-2, Sub 1146 should be allocated among the rate classes on a uniform percentage basis, using the uniform bill adjustment methodology that was approved by the Commission in that docket.
15. The appropriate prospective fuel and fuel-related cost factors for this proceeding for each of DEP’s rate classes, excluding the regulatory fee, are as follows: 2.311¢/kilowatt-hour (“kWh”) for the Residential class; 2.556¢/kWh for the Small

General Service class; 2.477¢/kWh for the Medium General Service class; 1.757¢/kWh for the Large General Service class; and 2.251¢/kWh for the Lighting class.

16. The appropriate EMFs established in this proceeding, excluding the regulatory fee, are as follows: 0.575¢/kWh for the Residential class; 0.363¢/kWh for the Small General Service class; 0.343¢/kWh for the Medium General Service class; 1.038¢/kWh for the Large General Service class; and 0.885¢/kWh for the Lighting class.

17. The total net fuel and fuel-related cost factors for this proceeding for each of DEP's rate classes, excluding the regulatory fee, are as follows: 2.886¢/kWh for the Residential class; 2.919¢/kWh for the Small General Service class; 2.820¢/kWh for the Medium General Service class; 2.795¢/kWh for the Large General Service class; and 3.136¢/kWh for the Lighting class.

18. In this proceeding, DEP included a rate to recover a revenue deficiency related to a fuel EMF that expired and was removed from billed rates on November 30, 2017, but was inadvertently included in the calculation of the compliance rates filed effective March 16, 2018. The following rates by class will be in effect for a 12-month period expiring on and after November 30, 2019: 0.022¢/kWh for the Residential class; 0.052¢/kWh for the Small General Service class; 0.068¢/kWh for the Medium General Service class; 0.002¢/kWh for the Large General Service class; and (0.046)¢/kWh for the Lighting class.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 1

This finding of fact is essentially informational, procedural, and jurisdictional in nature and is uncontroverted.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 2

N.C. Gen. Stat. § 62-133.2(c) sets out the verified, annualized information that each electric utility is required to furnish to the Commission in an annual fuel and fuel-related cost adjustment proceeding for a historical 12-month test period. Commission Rule R8-55(b) prescribes the 12 months ending March 31 as the test period for DEP. The Company's filing in this proceeding was based on the 12 months ended March 31, 2018.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 3

The evidence for this finding of fact is contained in the Application, the direct testimony of Company witness Ward and the entire record in this proceeding. This finding is not contested by any party.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

The evidence for this finding of fact is contained in the testimony of Company witnesses Henderson and Miller and the affidavit of Public Staff affiant Metz.

Commission Rule R8-55(d)(1) provides that capacity factors for nuclear production facilities will be normalized based generally on the national average for nuclear production facilities as reflected in the most recent North American Electric Reliability Corporation ("NERC") Generating Availability Report, adjusted to reflect the unique, inherent characteristics of the utility facilities and any unusual events. Company witness Henderson testified that DEP's nuclear fleet consists of three generating stations and a total of four units. He testified that the Company's four nuclear units operated at a system average capacity factor of 95.67% during the test period. This capacity factor, as well as the Company's 2-year average capacity factor of 94.66%, exceeded the five-year industry weighted average capacity factor of 90.03% for the period 2012-2016 for

average comparable units on a capacity-rated basis, as reported by NERC in its latest Generating Unit Statistical Brochure.

Company witness Miller testified concerning the performance of DEP's fossil/hydro assets. He stated that the Company's generating units operated efficiently and reliably during the test period. He explained that several key measures are used to evaluate operational performance, depending on the generator type: (1) equivalent availability factor ("EAF"), which refers to the percentage of a given time period a facility was available to operate at full power, if needed (EAF is not affected by the manner in which the unit is dispatched or by the system demands; it is impacted, however, by planned and unplanned (*i.e.*, forced) outage time); (2) net capacity factor ("NCF"), which measures the generation that a facility actually produces against the amount of generation that theoretically could be produced in a given time period, based upon its maximum dependable capacity (NCF *is* affected by the dispatch of the unit to serve customer needs); (3) equivalent forced outage rate ("EFOR"), which represents the percentage of unit failure (unplanned outage hours and equivalent unplanned derated hours); a low EFOR represents fewer unplanned outage and derated hours, which equates to a higher reliability measure; and (4) starting reliability, which represents the percentage of successful starts.

Witness Miller presented the following chart, which shows operational results, categorized by generator type, as well as results from the most recently published NERC Generating Unit Statistical Brochure for the period 2012 through 2016:

<i>Generator Type</i>	Measure	Review Period	2012-2016	Nbr of Units
		DEP Operational Results	NERC Average	
<i>Coal-Fired Test Period</i>	EAF	78.0%	82.0%	446
	NCF	29.6%	58.3%	
	EFOR	8.0%	7.6%	
<i>Coal-Fired Summer Peak</i>	EAF	90.5%	n/a	n/a
<i>Total CC Average</i>	EAF	85.2%	84.8%	301
	NCF	78.0%	53.0%	
	EFOR	0.69%	5.5%	
<i>Total CT Average</i>	EAF	79.4%	87.6%	826
	SR	98.2%	98.1%	
<i>Hydro</i>	EAF	95.8%	81.1%	1,120

Company witness Miller also testified that the Company, like other utilities across the United States, has experienced a change in the dispatch order for each type of generating facility due to continued favorable economics resulting from the lower pricing of natural gas. Gas-fired facilities provided 69% of the DEP fossil/hydro generation during the test period.

The Commission further concludes that DEP generally managed its baseload plants prudently and efficiently to minimize fuel and fuel-related costs.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 5

Commission Rule R8-52(b) requires each electric utility to file a Fuel Procurement Practices Report at least once every 10 years and each time the utility's fuel procurement practices change. The Company's revised fuel procurement practices were filed with the Commission in Docket No. E-100, Sub 47A in 2008, and were in effect throughout the 12 months ending March 31, 2018. In addition, the Company files monthly reports of its fuel and fuel-related costs pursuant to Commission Rule R8-52(a).

Further evidence for this finding of fact is contained in the testimony of Company witnesses Ward, Grant, Miller, and Church.

Company witness Ward testified that DEP's fuel procurement strategies that mitigate volatility in supply costs are a key factor in DEP's ability to maintain lower fuel and fuel-related rates. Other key factors include DEP's diverse generating portfolio mix of nuclear, coal, natural gas, and hydro; lower natural gas and coal prices; the capacity factors of its nuclear fleet; the combination of DEP's and DEC's respective skills in procuring, transporting, managing and blending fuels and procuring reagents; the increased and broader purchasing ability of the combined companies; and the joint dispatch of DEP's and DEC's generation resources.

Company witness Grant described DEP's fossil fuel procurement practices, set forth in Grant Exhibit 1. Those practices include computing near and long-term consumption forecasts, determining and designing inventory targets, inviting proposals from all qualified suppliers, awarding contracts based on the lowest evaluated offer, monitoring delivered coal volume and quality against contract commitments, and conducting short-term and spot purchases to supplement term supply.

According to witness Grant, the Company's average delivered coal cost per ton increased approximately 1%, from \$80.26 per ton in the prior test period to \$80.82 per ton in the test period. The Company's transportation costs increased approximately 5%, from \$28.03 per ton in the prior test period to \$29.42 per ton in the test period.

Witness Grant stated that DEP's current coal burn projection for the billing period is 2.3 million tons compared to 3.9 million tons consumed during the test period. DEP's billing period projections for coal generation may be impacted due to changes from, but

not limited to, the following factors: delivered natural gas prices versus the average delivered cost of coal, volatile power prices, and electric demand. Combining coal and transportation costs, DEP projects average delivered coal costs of approximately \$81.65 per ton for the billing period compared to \$80.82 per ton in the test period.

According to witness Grant, DEP continues to maintain a comprehensive coal and natural gas procurement strategy that has proven successful over the years in limiting average annual fuel price changes while actively managing the dynamic demands of its fossil fuel generation fleet in a reliable and cost-effective manner.

Witness Grant further testified that DEP's current natural gas burn projection for the billing period is approximately 171.8 million MMBtu, which is an increase from the 169.4 million MMBtu consumed during the test period. The current average forward Henry Hub price for the billing period is \$2.81 per MMBtu, compared to \$3.03 per MMBtu in the test period. Witness Grant also testified that the Company's average price of gas purchased for the test period was \$4.68 per MMBtu, compared to \$4.00 per MMBtu in the prior test period, representing an increase of approximately 17%.

N.C. Gen. Stat. § 62-133.2(a1)(3) permits DEP to recover the cost of "ammonia, lime, limestone, urea, dibasic acid, sorbents, and catalysts consumed in reducing or treating emissions." Company witness Miller testified that the Company's fossil/hydro/solar generation portfolio consists of 9,268 MWs of generating capacity, 3,544 MWs of which is coal-fired generation across three generating stations and a total of seven units. These units are equipped with emission control equipment, including selective catalytic reduction ("SCR") equipment for removing nitrogen oxides ("NOx"), flue gas desulfurization ("FGD" or "scrubber") equipment for removing sulfur dioxide

("SO₂"), and low NO_x burners. This inventory of coal-fired assets with emission control equipment enhances DEP's ability to maintain current environmental compliance and concurrently utilize coal with increased sulfur content, thereby providing flexibility for DEP to procure the most cost-effective options for fuel supply.

Company witness Miller further testified that overall, the type and quantity of chemicals used to reduce emissions at the plants vary depending on the generation output of the unit, the chemical constituents in the fuel burned, and/or the level of emissions reduction required.

Company witness Church testified that DEP's nuclear fuel procurement practices involve computing near and long-term consumption forecasts, establishing nuclear system inventory levels, projecting required annual fuel purchases, requesting proposals from qualified suppliers, negotiating a portfolio of long-term contracts from diverse sources of supply, and monitoring deliveries against contract commitments. Witness Church explained that for uranium concentrates, conversion and enrichment services, long-term contracts are used extensively in the industry to cover forward requirements and ensure security of supply. He also stated that, throughout the industry, the initial delivery under new long-term contracts commonly occurs several years after contract execution. For this reason, DEP relies extensively on long-term contracts to cover the largest portion of its forward requirements. By staggering long-term contracts over time for these components of the nuclear fuel cycle, DEP's purchases within a given year consist of a blend of contract prices negotiated at many different periods in the markets, which has the effect of smoothing out the Company's exposure to price volatility. He further stated that diversifying fuel suppliers reduces DEP's exposure to possible

disruptions from any single source of supply. Due to the technical complexities of changing fabrication services suppliers, DEP generally sources these services to a single domestic supplier on a plant-by-plant basis using multi-year contracts.

N.C. Gen. Stat. §§ 62-133.2(a1)(4), (5), (6), and (7) permit the recovery of the cost of non-capacity power purchases subject to economic dispatch or economic curtailment; capacity costs of power purchases associated with qualifying facilities subject to economic dispatch; certain costs associated with power purchases from renewable energy facilities; and the fuel costs of other power purchases. Company witness Grant testified that DEP and DEC utilize the same process to ensure that the assets of the Companies are reliably and economically available to serve their respective customers. To that end, both companies consider numerous factors such as the latest forecasted fuel prices, transportation rates, planned maintenance and refueling outages at the generating units, estimated forced outages at generating units based on historical trends, generating unit performance parameters, and expected market conditions associated with power purchases and off-system sales opportunities in order to determine the most economic and reliable means of serving their customers.

No party presented testimony contesting the Company's fuel and reagent procurement and power purchasing practices. Based upon the fuel procurement practices report, the evidence in the record, and the absence of any testimony to the contrary, the Commission concludes that these practices were reasonable and prudent during the test period.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 6

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Ward.

According to the exhibits sponsored by Company witness Ward, the test period per book system sales were 62,453,151 MWh, and test period per book system generation and purchased power amounted to 70,851,204 MWh (net of auxiliary use and joint owner generation). The test period per book system generation and purchased power are categorized as follows (Ward Exhibit 7):

<u>Net Generation Type</u>	<u>MWh</u>
Coal	9,240,778
Natural Gas, Oil and Biomass	22,933,359
Nuclear	29,666,537
Hydro – Conventional	587,221
Solar	247,821
Purchased Power – subject to economic dispatch or curtailment	3,549,071
Other Purchased Power	<u>4,626,417</u>
Total Net Generation (may not add to sum due to rounding)	70,851,204

The evidence presented regarding the operation and performance of the Company's generation facilities is discussed in the Evidence and Conclusions for Finding of Fact No. 4.

No party contested witness Ward's exhibits setting forth per books system sales, generation by fuel type, and purchased power. Therefore, based on the evidence presented and noting the absence of evidence presented to the contrary, the Commission concludes that the per books levels of test period system sales of 62,453,151 MWh and system generation and purchased power of 70,851,204 MWh are reasonable and appropriate for use in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 7

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Henderson and the affidavit of Public Staff affiant Metz.

Commission Rule R8-55(d)(1) provides that capacity factors for nuclear production facilities will be normalized based generally on the national average for nuclear production facilities as reflected in the most recent NERC Generating Availability Report, adjusted to reflect the unique, inherent characteristics of the utility's facilities and any unusual events. The Company proposed using a 94.1% capacity factor in this proceeding based on the operational history of the Company's nuclear units, and the number of planned outage days scheduled during the 2018-2019 billing period. This proposed capacity factor exceeds the five-year industry weighted average capacity factor of 90.0% for the period 2012-2016 for average comparable units on a capacity-rated basis, as reported by NERC in its latest Generating Availability Report. Public Staff affiant Metz did not dispute the Company's proposed use of a 94.1% capacity factor.

Based upon the requirements of Commission Rule R8-55(d)(1), the historical and reasonably expected performance of the DEP system, and the fact that the Public Staff did not dispute the Company's proposed capacity factor, the Commission concludes that the 94.1% nuclear capacity factor, and its associated generation of 29,210,311 MWh, are reasonable and appropriate for determining the appropriate fuel and fuel-related costs in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 8-10

The evidence supporting these findings of fact is contained in the testimony and exhibits of Company witness Ward.

On her Exhibit 4, Company witness Ward set forth the test year per books North Carolina retail sales, adjusted for weather and customer growth, of 37,259,304 MWh, comprised of Residential class sales of 15,621,843 MWh, Small General Service sales of 1,891,451 MWh, Medium General Service sales of 11,038,646 MWh, Large General Service sales 8,346,128 MWh, and Lighting class sales of 361,235 MWh.

Witness Ward used projected billing period system sales, generation, and purchased power to calculate the proposed prospective component of the fuel and fuel-related cost rate. The projected system sales level used, as set forth on Ward Exhibit 2, Schedule 1, is 62,133,368 MWh. The projected level of generation and purchased power used was 68,667,857 MWh (calculated using the 94.1% capacity factor found reasonable and appropriate above), and was broken down by witness Ward as follows, as set forth on that same schedule:

<u>Generation Type</u>	<u>MWh</u>
Coal	5,721,568
Gas Combustion Turbine and Combined Cycle	22,506,145
Nuclear	29,210,311
Hydro	606,686
Solar	304,154
Purchased Power	<u>10,318,993</u>
Total (may not add to sum due to rounding)	68,667,857

As part of her Workpaper 7, Company witness Ward also presented an estimate of the projected billing period North Carolina retail Residential, Small General Service, Medium General Service, Large General Service, and Lighting MWh sales. The Company estimates billing period North Carolina retail MWh sales to be as follows:

<u>N.C. Retail Customer Class</u>	<u>Projected MWh Sales</u>
Residential	15,956,916
Small General Service	1,795,996

Medium General Service	10,351,641
Large General Service	9,176,034
Lighting	<u>379,219</u>
Total (may not add to sum due to rounding)	37,659,805

These class totals were used in Ward Exhibit 2, Schedule 1, in calculating the total fuel and fuel-related cost factors by customer class.

Based on the evidence presented by the Company, the Public Staff's acceptance of the amounts presented by the Company, and the absence of evidence presented to the contrary, the Commission concludes that the projected North Carolina retail levels of sales set forth in the Company's exhibits (normalized for customer growth and weather), as well as the projected levels of generation and purchased power, are reasonable and appropriate for use in this proceeding.

EVIDENCE AND CONCLUSION FOR FINDING OF FACT NO. 11

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witnesses Ward and Grant and the affidavit of Public Staff affiant Metz.

In her Exhibit 2, Schedule 1, Company witness Ward recommended the fuel and fuel-related prices and expenses. The total adjusted system fuel and fuel-related expense, based in part on the use of these amounts, is utilized to calculate the prospective fuel and fuel-related cost factors recommended by the Company and the Public Staff.

In his affidavit, Public Staff affiant Metz stated that, based on his investigation, the projected fuel and fuel-related costs (including reagents) set forth in DEP's application and testimony are reasonable and in accordance with the requirements of N.C. Gen. Stat. § 62-133.2.

No other party presented evidence on the level of DEP's fuel and fuel-related prices and expenses.

Based upon the evidence in the record as to the appropriate fuel and fuel-related prices and expenses, the Commission concludes that the fuel and fuel-related prices recommended by Company witness Ward and accepted by the Public Staff for purposes of determining projected system fuel expense are reasonable and appropriate for use in this proceeding.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 12

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Ward and the affidavit of Public Staff affiant Metz.

According to Ward Exhibit 2, Schedule 1, the projected fuel and fuel-related costs for the North Carolina retail jurisdiction for use in this proceeding are \$844,290,141. Public Staff affiant Metz did not take issue with her calculation.

Aside from the Company and the Public Staff, no other party presented or elicited testimony contesting the Company's projected fuel and fuel-related costs for the North Carolina retail jurisdiction. Based upon the evidence in the record and the absence of any direct testimony to the contrary, the Commission concludes that the Company's projected total fuel and fuel-related cost for the North Carolina retail jurisdiction of \$844,290,141 is reasonable.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NOS. 13-17

The evidence supporting these findings of fact is contained in the testimony and exhibits of Company witness Ward, the affidavits of Public Staff affiants Li and Metz.

Company witness Ward presented DEP's original fuel and fuel-related expense (over)/under-collection and prospective fuel and fuel-related cost factors. Company witness Ward's testimony sets forth the projected fuel and fuel-related costs, the amount of (over)/under-collection for purposes of the EMF, the method for allocating the decrease in fuel and fuel-related costs, the composite fuel and fuel-related cost factors, EMFs and the EMF interest along with revised exhibits and work papers. Public Staff affiant Li agreed that DEP's EMF increment/(decrement) riders for each customer class should be approved based on the following under-recoveries including the previously deferred under-recovery of \$42 million from the prior year fuel proceeding, Docket No. E-2, Sub 1146:

<u>N.C. Retail Customer Class</u>	<u>Test Period Under - Recovery</u>
Residential	\$89,796,902
Small General Service	6,865,500
Medium General Service	37,833,573
Large General Service	86,641,717
Lighting	<u>3,196,403</u>
Total (may not add to sum due to rounding)	\$224,334,099

As a result of these amounts, Public Staff affiants Li and Metz recommended approval of the following EMF increment/(decrement) billing factors, excluding the regulatory fee:

<u>N.C. Retail Customer Class</u>	<u>EMF Increment/ (Decrement) (cents/kWh)</u>
Residential	0.575
Small General Service	0.363
Medium General Service	0.343
Large General Service	1.038
Lighting	0.885

The Commission concludes that the EMF increment/(decrement) billing factors set forth in the affidavit of Public Staff affiant Li and the affidavit of Public Staff affiant Metz are reasonable and appropriate for use in this proceeding.

Company witness Ward calculated the Company's proposed fuel and fuel-related cost factors using a uniform bill adjustment method. She stated that the increase in fuel costs from the amounts approved in Docket No. E-2, Sub 1146 should be allocated among the rate classes on a uniform percentage basis, using the uniform bill adjustment methodology utilized in past DEP fuel cases approved by this Commission. No party opposed the use of this allocation method. Public Staff affiant Metz recommended the approval of the prospective and total fuel and fuel-related cost factors (excluding regulatory fee) set forth in the Company's application and the testimony of Witness Ward.

Based upon the testimony and exhibits in the record, the Commission concludes that DEP's projected fuel and fuel-related cost of \$844,290,141 for the North Carolina retail jurisdiction for use in this proceeding is reasonable. The Commission also concludes that the EMF increment/(decrement) riders and the EMF interest decrement rider for each class set forth in the affidavit of Public Staff affiant Li and the affidavit of Public Staff affiant Metz in this proceeding, excluding the regulatory fee, and the Public Staff's prospective fuel and fuel-related cost factors proposed in this proceeding for each of the rate classes, are appropriate. Additionally, the Commission concludes that DEP's increase in fuel and fuel-related costs from the amounts approved in Docket No. E-2, Sub 1146 should be allocated among the rate classes on a uniform percentage basis, using the

uniform bill adjustment methodology approved by this Commission in DEP's past fuel cases.

The test period and projected fuel and fuel-related costs, and the proposed factors, including the EMF and related EMF interest, are not opposed by any party. Accordingly, the overall fuel and fuel-related cost calculation, incorporating the conclusions reached herein, results in net fuel and fuel-related cost factors of 2.886¢/kWh for the Residential class, 2.919¢/kWh for the Small General Service class, 2.820¢/kWh for the Medium General Service class, 2.795¢/kWh for the Large General Service class, and 3.136¢/kWh for the Lighting class, excluding regulatory fee, consisting of the prospective fuel and fuel-related cost factors of 2.311¢/kWh, 2.556¢/kWh, 2.477¢/kWh, 1.757¢/kWh, and 2.251¢/kWh, EMF increments/(decrements) of 0.575¢, 0.363¢, 0.343¢, 1.038¢, and 0.885¢/kWh, and EMF interest decrements of 0.000¢/kWh, 0.000¢/kWh, 0.000¢/kWh, 0.000¢/kWh and 0.000¢/kWh for the Residential, Small General Service, Medium General Service, Large General Service, and Lighting classes, respectively, all excluding the regulatory fee. The billing factors, both excluding and including the regulatory fee, are shown in Appendix A to this order.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 18

The evidence supporting this finding of fact is contained in the testimony and exhibits of Company witness Ward.

Company witness Ward testified that a revenue deficiency had resulted related to a fuel EMF that expired and was removed from billed rates on November 30, 2017, but was inadvertently included in the calculation of compliance rates filed effective March 16, 2018. Witness Ward further testified that this under-collection without interest for

the time period March 16, 2018 – May 31, 2018 will be recovered over a 12-month period expiring on and after November 30, 2019. The rates by class are as follows: 0.022¢/kWh for the Residential class; 0.052¢/kWh for the Small General Service class; 0.068¢/kWh for the Medium General Service class; 0.002¢/kWh for the Large General Service class; and (0.046)¢/kWh for the Lighting class.

Based on the evidence presented by DEP, and noting the absence of evidence presented to the contrary by any other party, the Commission finds and concludes that the Company's fuel EMF deficiency rider rates are reasonable.

IT IS, THEREFORE, ORDERED:

1. That, effective for service rendered on and after December 1, 2018, DEP shall adjust the base fuel and fuel-related cost factors in its North Carolina retail rates, as approved in Docket No. E-2, Sub 1142, amounting to 1.993¢/kWh for the Residential class, 2.088¢/kWh for the Small General Service class, 2.431¢/kWh for the Medium General Service class, 2.253¢/kWh for the Large General Service class, and 0.596¢/kWh for the Lighting class (all excluding the regulatory fee), by amounts equal to 0.318¢/kWh, 0.468¢/kWh, 0.046¢/kWh, (0.496)¢/kWh and 1.655¢/kWh, respectively, and further, that DEP shall adjust the resulting approved prospective fuel and fuel-related cost factors by EMF increments/(decrements) of 0.575¢/kWh for the Residential class, 0.363¢/kWh for the Small General Service class, 0.343¢/kWh for the Medium General Service class, 1.038¢/kWh for the Large General Service class, and 0.885¢/kWh for the Lighting class (excluding the regulatory fee) and EMF interest decrements of 0.000¢/kWh for the Residential class, 0.000¢/kWh for the Small General Service class, 0.000¢/kWh for the Medium General Service class, and 0.000¢/kWh for the Large General Service class

(excluding the regulatory fee). The EMF increments are to remain in effect for service rendered through November 30, 2019.

2. That, effective for service rendered on and after December 1, 2018 DEP shall bill the following fuel EMF deficiency rates 0.022¢/kWh for the Residential class; 0.052¢/kWh for the Small General Service class; 0.068¢/kWh for the Medium General Service class; 0.002¢/kWh for the Large General Service class; and (0.046)¢/kWh for the Lighting class.

3. That DEP shall file appropriate rate schedules and riders with the Commission in order to implement these approved rate adjustments no later than 10 days from the date of this Order.

4. That DEP shall notify its North Carolina retail customers of these rate adjustments by including the “Notice to Customers of Change in Rates” attached as Appendix B as a bill insert with bills rendered during the Company's next normal billing cycle.

ISSUED BY ORDER OF THE COMMISSION.

This the ___ day of _____, 2018.

NORTH CAROLINA UTILITIES COMMISSION

Chief Clerk

Appendix A

EXCLUDING REGULATORY FEE

	A	B	C	D	E	F
Class	Base Fuel Rate	Decrement to Base Fuel Rate	Prospective Rate (Columns A + B)	EMF Increment/ (Decrement)	EMF Interest (Decrement)	Billed Rate (Cols. C + D + E)
Residential	1.993	0.318	2.311	0.575	-	2.886
Small General Service	2.088	0.468	2.556	0.363	-	2.919
Medium General Service	2.431	0.046	2.477	0.343	-	2.820
Large General Service	2.253	(0.496)	1.757	1.038	-	2.795
Lighting	0.596	1.655	2.251	0.885	-	3.136

INCLUDING REGULATORY FEE

	A	B	C	D	E	F
Class	Base Fuel Rate	Decrement to Base Fuel Rate	Prospective Rate (Columns A + B)	EMF Increment/ (Decrement)	EMF Interest (Decrement)	Billed Rate (Cols. C + D + E)
Residential	1.996	0.318	2.314	0.576	-	2.890
Small General Service	2.091	0.469	2.560	0.364	-	2.924
Medium General Service	2.434	0.046	2.480	0.343	-	2.823
Large General Service	2.256	(0.497)	1.759	1.039	-	2.798
Lighting	0.597	1.657	2.254	0.886	-	3.140

Appendix B

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1173

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 TO CUSTOMERS
Rule R8-55 Relating to Fuel and Fuel)	OF CHANGE IN RATES
Related Cost Adjustments for Electric Utilities)	

NOTICE IS GIVEN that the North Carolina Utilities Commission entered an Order in Docket No. E-2, Sub 1173, on _____, 2018, after public hearing, approving net fuel and fuel-related rate increases of 0.707, 0.798, 0.562, 0.378, and 1.479 cents per kWh (excluding regulatory fee¹) for the Residential, Small General Service, Medium General Service, Large General Service, and Lighting classes, respectively, or an approximate increase of \$226 million on an annual basis, in the fuel and fuel-related rates and charges paid by the retail customers of Duke Energy Progress in North Carolina, effective for service rendered on and after December 1, 2018. The rate increase was ordered by the Commission after review of Duke Energy Progress' fuel and fuel-related expenses during the 12-month period ended March 31, 2018, and represents actual changes experienced by the Company with respect to its reasonable cost of fuel and fuel-related costs during the test period. The total fuel and fuel-related cost factors for the Residential, Small General Service, Medium General Service, Large General Service, and Lighting, and Industrial customer classes are 2.886¢/kWh, 2.919¢/kWh, 2.820¢/kWh, 2.795¢/kWh, and 3.136¢/kWh respectively (excluding regulatory fee).

Overall the changes in the approved fuel and fuel-related rates described above will result in monthly net rate increases of approximately \$7.07 for each 1000 kWh of residential usage (including regulatory fee).

In addition to the fuel and fuel-related rates described above, there will be an additional charge for the fuel EMF deficiency rider of 0.022, 0.052, 0.068, 0.002 and (0.046) cents per kWh (excluding regulatory fee) for the Residential, Small General Service, Medium General Service, Large General Service, and Lighting classes,

¹ Based on a NCRF multiplier of 1.001402

respectively, for retail customers of Duke Energy Progress in North Carolina, effective for service rendered on or after December 1, 2018. In its May 21, 2018 Order in Docket No. E-2, Sub 1142, the Commission authorized recovery in Duke Energy Progress' next fuel proceeding of any under-collection of EMF resulting from a clerical mistake identified in the calculation of compliance rates filed effective March 16, 2018. This rate will be in effect for a 12-month period expiring on and after November 30, 2019.

ISSUED BY ORDER OF THE COMMISSION.

This the ____ day of _____, 2018.

NORTH CAROLINA UTILITIES COMMISSION

Chief Clerk

CERTIFICATE OF SERVICE

I hereby certify that copies of Duke Energy Progress/ Public Staff Joint Proposed Order have been served upon the parties listed below by electronic mail (e-mail), or deposit in the U.S. mail, first-class postage prepaid:

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This the 18th day of October 2018.

Electronically submitted
s/ Dwight W. Allen

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