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August 21, 2020

VIA ELECTRONIC FILING

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

**RE: Duke Energy Progress, LLC's Supplemental Testimony and Revised Exhibits and Workpapers of Dana M. Harrington
Docket No. E-2, Sub 1250**

Dear Ms. Campbell:

Enclosed please find the Supplemental Testimony and Revised Exhibits and Workpapers of Dana M. Harrington.

If you have any questions, please do not hesitate to contact me. Thank you for your assistance with this matter.

Sincerely,

Jack E. Jirak

Enclosure

cc: Parties of Record

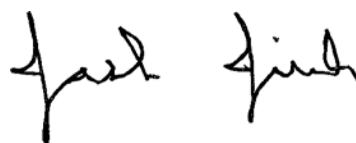
OFFICIAL COPY

Aug 21 2020

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's Supplemental Testimony and Revised Exhibits and Workpapers of Dana M. Harrington, in Docket No. E-2, Sub 1250, has been served by electronic mail, hand delivery, or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 21st day of August, 2020.

Handwritten signature of Jack E. Jirak in black ink.

Jack E. Jirak
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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1250

In the Matter of)
Application of Duke Energy Progress, LLC) **SUPPLEMENTAL TESTIMONY**
Pursuant to G.S. 62-133.2 and NCUC Rule) **OF DANA M. HARRINGTON FOR**
R8-55 Relating to Fuel and Fuel-Related) **DUKE ENERGY PROGRESS, LLC**
Charge Adjustments for Electric Utilities)

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Dana M. Harrington and my business address is 550 South Tryon Street,
3 Charlotte, North Carolina.

4 **Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?**

5 A. Yes, on June 9, 2020, I caused to be pre-filed with the Commission direct testimony
6 including six exhibits and eighteen supporting workpapers.

7 **Q. YOUR SUPPLEMENTAL TESTIMONY INCLUDES THREE REVISED**
8 **EXHIBITS AND THREE REVISED WORKPAPERS. WERE THESE**
9 **SUPPLEMENTAL EXHIBITS AND WORKPAPERS PREPARED BY YOU OR**
10 **AT YOUR DIRECTION AND UNDER YOUR SUPERVISION?**

11 A. Yes. These exhibits and workpapers were prepared by me and consist of the following:

- 12 • Revised Exhibit 1: Summary Comparison of Fuel and Fuel-Related Costs Factors.
- 13 • Revised Exhibit 2:
 - 14 ○ Schedule 1, Pages 2 and 3: Fuel and Fuel-Related Costs Factors and Calculation
 - 15 of Uniform Percentage Average Bill Adjustment by Customer Class, respectively
 - 16 - reflecting a 94.46% proposed nuclear capacity factor and projected billing period
 - 17 megawatt hour (“MWh”) sales,
 - 18 ○ Schedule 2, Pages 2 and 3: Fuel and Fuel-Related Costs Factors and Calculation
 - 19 of Uniform Percentage Average Bill Adjustment by Customer Class, respectively
 - 20 - reflecting a 94.46% proposed nuclear capacity factor and normalized test period
 - 21 MWh sales, and
 - 22 ○ Schedule 3, Page 2 and 3: Fuel and Fuel-Related Costs Factors and Calculation of
 - 23 Uniform Percentage Average Bill Adjustment by Customer Class, respectively -
 - 24 reflecting an 92.72% North American Electric Reliability Corporation (“NERC”)

1 five-year national weighted average nuclear capacity factor for comparable units
2 and projected billing period MWh sales.

- 3 • Revised Exhibit 3, Pages 1 through 6: Calculation of the Proposed Composite Experience
4 Modification Factor (“EMF”) rate.
- 5 • Revised Workpaper 8: Projected MWh Sales
- 6 • Revised Workpaper 12 (originally mislabeled Workpaper 11): Annualized Revenues at
7 Current Rates, and
- 8 • Revised Workpaper 14: 2019 Production Plant Allocation Factors

9 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY IN THIS**
10 **PROCEEDING?**

11 A. The purpose of my testimony is to present the revised rates reflecting the impacts related to
12 four updates in my direct exhibits and workpapers.

13 At the time of filing initial direct testimony in this proceeding, the 2019 production
14 plant allocator to be applied to renewable and qualifying facility capacity costs for the purpose
15 of determining the billing period over or under collection, as approved for use in DEP’s most
16 recent general rate case, was unavailable. The 2019 production demand allocator was used as
17 a proxy. At this time, the Company has revised Exhibits 1 and 2 to reflect the updated
18 allocation factor. Supporting details are also provided on revised Workpaper 14.

19 Second, after discussion with the Public Staff on Harris Unit 1 outage (3/23/2020 –
20 3/25/2020), the Company and Public Staff agree that a \$100,000 credit to North Carolina’s
21 retail share of system fuel expense in this case is a reasonable adjustment to the replacement
22 power costs incurred as a result of the outage that occurred. This adjustment is shown on
23 revised Exhibit 3, page 1 and is further itemized by customer class according to March 2020
24 MWh sales on Exhibit 3, pages 2 through 6.

1 Finally, during discovery, a typographical error was noted on Workpaper 8 and
 2 Workpaper 12 was mislabeled as Workpaper 11. These errors had no impact on the filing but
 3 have been revised and are being refiled for accuracy.

4 **Q. WHAT IS THE COST IMPACT OF THESE UPDATES TO NORTH CAROLINA**
 5 **RETAIL CUSTOMERS?**

6 A. North Carolina’s retail share of projected billing period costs was decreased by \$404,893 and
 7 North Carolina’s retail test period under-collected balance was reduced by \$100,000.

8 **Q. WHAT IS THE RATE IMPACT OF THESE UPDATES TO NORTH CAROLINA**
 9 **RETAIL CUSTOMERS?**

10 A. These updates yield a net .001 cents per kWh decrease for Residential, Small General Service,
 11 and Medium General Service customers, a .002 cents per kWh decrease for Lighting
 12 customers, but no impact to the cents per kWh rate of Large General Service customers. The
 13 components of the proposed fuel and fuel-related cost factors by customer class, as shown on
 14 Revised Harrington Exhibit 1, are as follows:

		Small	Medium	Large	
		General	General	General	
		Residential	Service	Service	Lighting
Description	cents/kWh	cents/kWh	cents/kWh	cents/kWh	cents/kWh
Total adjusted Fuel and Fuel-Related Costs Factors	2.080	2.126	2.228	2.204	1.392
EMF Increment/(Decrement)	0.180	0.049	0.096	0.267	0.381
Proposed Net Fuel and Fuel-Related Costs Factors	2.260	2.175	2.324	2.471	1.773

15
 16 **Q. DOES THIS CONCLUDE YOUR PRE-FILED SUPPLEMENTAL TESTIMONY?**

17 A. Yes, it does.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Summary Comparison of Fuel and Fuel-Related Cost Factors
Twelve Months Ended March 31, 2020
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Revised Harrington Exhibit 1

Line No.	Description	Reference	Residential cents/KWh	Small General Service cents/KWh	Medium General Service cents/KWh	Large General Service cents/KWh	Lighting cents/KWh
<u>Current Fuel and Fuel-Related Cost Factors (Approved Fuel Rider Docket No. E-2, Sub 1204)</u>							
1	Approved Fuel and Fuel-Related Costs Factors	Input	2.326	2.499	2.456	2.054	2.217
2	EMF Increment / (Decrement)	Input	0.373	0.198	0.218	0.648	0.530
3	EMF Interest Decrement cents/kWh, if applicable	n/a	-	-	-	-	-
4	Approved Net Fuel and Fuel-Related Costs Factors	Sum	2.699	2.697	2.674	2.702	2.747
<u>Other Fuel and Fuel-Related Cost Factors</u>							
5	NERC Capacity Factor of 92.72% with Projected Billing Period MWh Sales	Exh 2 Sch 3 pg 3	2.335	2.264	2.384	2.510	1.939
6	Proposed Nuclear Capacity Factor of 94.46% with Normalized Test Period MWh Sales	Exh 2 Sch 2 pg 3	2.278	2.194	2.359	2.466	1.736
<u>Proposed Fuel and Fuel-Related Cost Factors using Proposed Nuclear Capacity Factor of 94.46% with Projected Billing Period MWh Sales</u>							
7	Fuel and Fuel-Related Costs excluding Purchased Capacity	Exh 2 Sch 1 pg 2	1.962	1.982	2.115	2.133	1.392
8	Renewable and Qualifying Facilities Purchased Power Capacity	Exh 2 Sch 1 pg 2	0.118	0.144	0.113	0.071	-
9	Total adjusted Fuel and Fuel-Related Costs Factors	Sum	2.080	2.126	2.228	2.204	1.392
10	EMF Increment/(Decrement)	Exh 2 Sch 1 pg 2	0.180	0.049	0.096	0.267	0.381
11	EMF Interest Decrement, if applicable	n/a	-	-	-	-	-
12	Proposed Net Fuel and Fuel-Related Costs Factors	Exh 2 Sch 1 pg 2	2.260	2.175	2.324	2.471	1.773

Note: The above rates do not include state regulatory fees.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Calculation of Fuel and Fuel-Related Cost Factors Using:
Proposed Nuclear Capacity Factor of 94.46% with Projected Billing Period MWh Sales
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Line No.	Unit	Reference	Generation (MWh)	Unit Cost (cents/KWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 3-4	29,730,338	0.6204 \$	184,443,928
2	Coal	Workpaper 3 - 4	7,940,674	3.0592	242,921,665
3	Gas - CT and CC	Workpaper 3 - 4	18,943,545	2.5883	490,311,290
4	Reagents & Byproducts	Workpaper 5	-		20,467,213
5	Total Fossil	Sum of Lines 2 - 4	26,884,219		753,700,168
6	Hydro	Workpaper 3	650,353		-
7	Net Pumped Storage		-		-
8	Total Hydro	Sum of Lines 6 - 7	650,353		-
9	Utility Owned Solar Generation	Workpaper 3	256,176		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	57,521,087		938,144,096
11	Purchases	Workpaper 3 - 4	9,918,206		464,539,663
12	JDA Savings Shared	Workpaper 5	-		(6,373,541)
13	Total Purchases	Sum of Lines 11 - 12	9,918,206		458,166,122
14	Total Generation and Purchases	Line 10 + Line 13	67,439,293		1,396,310,218
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(4,048,662)		(82,750,327)
16	Line losses and Company use	Line 18 - Line 15 - Line 14	(1,906,330)		-
17	System Fuel Expense for Fuel Factor	Line 14 + Line 15 + Line 16	-	\$	1,313,559,891
18	Projected System MWh Sales for Fuel Factor	Workpaper 3	61,484,301		61,484,301
19	Fuel and Fuel-Related Costs cents/kWh	Line 17 /Line 18 / 10			2.136

Note: Rounding differences may occur

Line No.	Description		Residential	General Service Small	General Service Medium	General Service Large	Lighting	Total
1	NC Projected Billing Period MWh Sales	Revised Workpaper 8	16,171,290	1,784,993	10,287,749	9,128,353	377,978	37,750,364
Calculation of Renewable and Qualifying Facilities Purchased Power Capacity Rate by Class								
2	Renewable Purchased Power Capacity	Workpaper 4						Amount \$ 26,962,441
3	Purchases from Qualifying Facilities Capacity	Workpaper 4						39,344,300
4	Total of Renewable and Qualifying Facilities Purchased Power Capacity	Line 2 + Line 3						\$ 66,306,741
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Revised Workpaper 14						60.07%
6	NC Renewable and Qualifying Facilities Purchased Power Capacity	Line 5 * Line 6						\$ 39,828,420
7	Production Plant Allocation Factors	Revised Workpaper 14	48.01%	6.46%	29.31%	16.22%	0.00%	100.000%
8	Renewable and Qualifying Facilities Purchased Power Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 19,120,155	\$ 2,571,682	\$ 11,675,300	\$ 6,461,283	\$ -	\$ 39,828,420
9	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.118	0.144	0.113	0.071	-	0.106
Summary of Total Rate by Class								
			cents/kWh	cents/kWh	cents/kWh	cents/kWh	cents/kWh	
10	Fuel and Fuel-Related Costs excluding Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.962	1.982	2.115	2.133	1.392	
11	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 9	0.118	0.144	0.113	0.071	-	
12	Total adjusted Fuel and Fuel-Related Costs cents/kWh	Line 10 + Line 11	2.080	2.126	2.228	2.204	1.392	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	0.180	0.049	0.096	0.267	0.381	
14	EMF Interest Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	-	-	-	
15	Net Fuel and Fuel-Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	2.260	2.175	2.324	2.471	1.773	

Note: Rounding differences may occur

Line No.	Rate Class	Projected Billing Period MWh Sales A	Annual Revenue at		Allocate Fuel Costs Increase/(Decrease) to Customer Class C	Increase/Decrease as % of Annual Revenue at Current Rates D	Total Fuel Rate Increase/(Decrease) cents/kwh E	Current Total Fuel Rate (including renewables and EMF) E-2, Sub 1204 cents/kwh F	Proposed Total Fuel Rate (including renewables and EMF) cents/kwh G
			Current rates	Revised Workpaper 12					
		Revised Workpaper 8		Revised Workpaper 12	Line 27 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Exhibit 1, Line 4	E + F = G
1	Residential	16,171,290	\$ 1,782,445,149	\$ (71,070,756)		-4.0%	(0.439)	2.699	2.260
2	Small General Service	1,784,993	233,805,982	(9,322,457)		-4.0%	(0.522)	2.697	2.175
3	Medium General Service	10,287,749	902,487,703	(35,984,548)		-4.0%	(0.350)	2.674	2.324
4	Large General Service	9,128,353	529,838,208	(21,126,037)		-4.0%	(0.231)	2.702	2.471
5	Lighting	377,978	92,358,220	(3,682,564)		-4.0%	(0.974)	2.747	1.773
6	NC Retail	37,750,364	\$ 3,540,935,260	\$ (141,186,362)					
Total Proposed Composite Fuel Rate:									
7	Adjusted System Total Fuel Costs	Revised Workpaper 8	\$ 1,314,547,846						
8	System Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	66,306,741						
9	Adjusted System Other Fuel Costs	Line 7 - Line 8	\$ 1,248,241,105						
10	NC Retail Allocation % - sales at generation	Workpaper 11		61.59%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 768,791,697						
12	NC Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	39,828,420						
13	NC Retail Total Fuel Costs before 2.5% Purchase Power Test	Line 11 + Line 12	\$ 808,620,116						
14	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 16	0						
15	NC Retail Total Fuel Costs	Line 13 + Line 14	\$ 808,620,116						
16	NC Projected Billing Period MWh Sales	Line 6, col A	37,750,364						
17	Calculated Fuel Rate cents/kWh	Line 15 / Line 16 / 10	2.142						
18	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.171						
19	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.000						
20	Total Proposed Composite Fuel Rate	Sum of Lines 17-19	2.313						
Total Current Composite Fuel Rate - Docket E-2 Sub 1204:									
21	Current composite Fuel Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 17	2.306						
22	Current composite EMF Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 18	0.381						
23	Current composite EMF Interest cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 19	0.000						
24	Total Current Composite Fuel Rate	Sum of Lines 21-23	2.687						
25	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 20 - Line 24	(0.374)						
26	NC Projected Billing Period MWh Sales	Line 6, col A	37,750,364						
27	Increase/(Decrease) in Fuel Costs	Line 25 * Line 26 * 10	\$ (141,186,362)						

Notes:
Rounding differences may occur

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Calculation of Fuel and Fuel Related Cost Factors Using:
Proposed Nuclear Capacity Factor of 94.46% with Normalized Test Period MWh Sales
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Line No.	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 3-4	29,730,338	0.6204	\$ 184,443,928
2	Coal	Workpaper 15	8,861,608	3.0592	271,094,943
3	Gas - CT and CC	Workpaper 3-4	18,943,545	2.5883	490,311,290
4	Reagents & Byproducts	Workpaper 4	-		20,467,213
5	Total Fossil	Sum of Lines 2 - 4	27,805,153		781,873,446
6	Hydro	Workpaper 3	650,353		-
7	Net Pumped Storage		-		-
8	Total Hydro	Sum of Lines 6 - 7	650,353		-
9	Utility Owned Solar Generation	Workpaper 3	256,176		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	58,442,021		966,317,374
11	Purchases	Workpaper 3 - 4	9,918,206		464,539,663
12	JDA Savings Shared	Workpaper 5	-		(6,373,541)
13	Total Purchases	Sum of Lines 11 - 12	9,918,206		458,166,122
14	Total Generation and Purchases	Line 10 + Line 13	68,360,227		1,424,483,496
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(4,048,662)		(82,750,327)
16	Line losses and Company use	Line 18 - Line 15 - Line 14	(1,935,872)		-
17	System Fuel Expense for Fuel Factor	Lines 14 + Line 15 + Line 16	-		\$ 1,341,733,169
18	Normalized Test Period MWh Sales for Fuel Factor	Exhibit 4	62,375,693		62,375,693
19	Fuel and Fuel-Related Costs cents/kWh	Line 17 / Line 18 / 10			2.151

Note: Rounding differences may occur

Line No.	Description		Residential	General Service Small	General Service Medium	General Service Large	Lighting	Total
1	NC Normalized Test Period MWh Sales	Workpaper 9	16,191,429	1,777,668	10,949,334	8,584,996	349,444	37,852,870
Calculation of Renewable and Qualifying Facilities Purchased Power Capacity Rate by Class								
2	Renewable Purchased Power Capacity	Workpaper 4						<u>Amount</u> \$ 26,962,441
3	Purchases from Qualifying Facilities Capacity	Workpaper 4						39,344,300
4	Total of Renewable and Qualifying Facilities Purchased Power Capacity	Line 2 + Line 3						<u>\$ 66,306,741</u>
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Revised Workpaper 14						60.07%
6	NC Renewable and Qualifying Facilities Purchased Power Capacity	Line 5 * Line 6						<u>\$ 39,828,420</u>
7	Production Plant Allocation Factors	Revised Workpaper 14	48.01%	6.46%	29.31%	16.22%	0.00%	100.000%
8	Renewable and Qualifying Facilities Purchased Power Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 19,120,155	\$ 2,571,682	\$ 11,675,300	\$ 6,461,283	\$ -	\$ 39,828,420
9	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.118	0.145	0.107	0.075	-	0.105
Summary of Total Rate by Class								
			<u>cents/KWh</u>	<u>cents/KWh</u>	<u>cents/KWh</u>	<u>cents/KWh</u>	<u>cents/KWh</u>	
10	Fuel and Fuel-Related Costs excluding Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.980	2.000	2.156	2.124	1.355	
11	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 9	0.118	0.145	0.107	0.075	-	
12	Total adjusted Fuel and Fuel-Related Costs cents/kWh	Line 10 + Line 11	2.098	2.145	2.263	2.199	1.355	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	0.180	0.049	0.096	0.267	0.381	
14	EMF Interest Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	-	-	-	
15	Net Fuel and Fuel-Related Costs Factors cents/kWh	Exh 2 Sch 2 Page 3	2.278	2.194	2.359	2.466	1.736	

Note: Rounding differences may occur

Line No.	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease) cents/kwh	Current Total Fuel Rate (including renewables and EMF) E-2, Sub 1204 cents/kwh	Proposed Total Fuel Rate (including renewables and EMF) cents/kwh
		A	B	C	D	E	F	G
		Workpaper 9	Revised Workpaper 12	Line 27 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Exhibit 1, Line 4	E + F = G
1	Residential	16,191,429	\$ 1,782,445,149	\$ (68,215,023)	-3.8%	(0.421)	2.699	2.278
2	Small General Service	1,777,668	233,805,982	(8,947,866)	-3.8%	(0.503)	2.697	2.194
3	Medium General Service	10,949,334	902,487,703	(34,538,633)	-3.8%	(0.315)	2.674	2.359
4	Large General Service	8,584,996	529,838,208	(20,277,160)	-3.8%	(0.236)	2.702	2.466
5	Lighting	349,444	92,358,220	(3,534,593)	-3.8%	(1.011)	2.747	1.736
6	NC Retail	37,852,870	\$ 3,540,935,260	\$ (135,513,275)				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Workpaper 9	\$ 1,342,721,124					
8	System Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	66,306,741					
9	System Other Fuel Costs	Line 7 - Line 8	\$ 1,276,414,383					
10	NC Retail Allocation % - sales at generation	Workpaper 11	60.88%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 777,081,077					
12	NC Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	39,828,420					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 816,909,496					
14	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 17	0					
15	NC Retail Total Fuel Costs	Line 13 + Line 14	\$ 816,909,496					
16	Adjusted NC Normalized Test Period MWh Sales	Line 6, col A	37,852,870					
17	Calculated Fuel Rate cents/kWh	Line 15 / Line 16 /10	2.158					
18	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.171					
19	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.000					
20	Total Proposed Composite Fuel Rate	Sum of Lines 17-19	2.329					
Total Current Composite Fuel Rate - Docket E-2 Sub 1204:								
21	Current composite Fuel Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 17	2.306					
22	Current composite EMF Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 18	0.381					
23	Current composite EMF Interest cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 19	0.000					
24	Total Current Composite Fuel Rate	Sum of Lines 21 - 23	2.687					
25	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 20 - Line 24	(0.358)					
26	Adjusted NC Normalized Test Period MWh Sales	Line 6, col A	37,852,870					
27	Increase/(Decrease) in Fuel Costs	Line 25 * Line 26 * 10	\$ (135,513,275)					

Note: Rounding differences may occur

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Calculation of Fuel and Fuel-Related Cost Factors Using:
NERC Capacity Factor of 92.72% with Projected Billing Period MWh Sales
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Line No.	Unit	Reference	Generation (MWh)	Unit Cost (cents/KWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 2	28,123,601	0.6204	\$ 174,475,894
2	Coal	Workpaper 15	9,547,412	3.0592	292,075,099
3	Gas - CT and CC	Workpaper 3 - 4	18,943,545	2.5883	490,311,290
4	Reagents & Byproducts	Workpaper 5	-		20,467,213
5	Total Fossil	Sum of Lines 2 - 4	28,490,957		802,853,602
6	Hydro	Workpaper 3	650,353		-
7	Net Pumped Storage		-		-
8	Total Hydro	Sum of Lines 6 - 7	650,353		-
9	Utility Owned Solar Generation	Workpaper 3	256,176		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	57,521,087		977,329,497
11	Purchases	Workpaper 3 - 4	9,918,206		464,539,663
12	JDA Savings Shared	Workpaper 5	-		(6,373,541)
13	Total Purchases	Sum of Lines 11- 12	9,918,206		458,166,122
14	Total Generation and Purchases	Line 10 + Line 13	67,439,293		1,435,495,619
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(4,048,662)		(82,750,327)
16	Line losses and Company use	Line 18 - Line 15 - Line 14	(1,906,330)		-
17	System Fuel Expense for Fuel Factor	Line 14 + Line 15 + Line 16	-		\$ 1,352,745,292
18	System MWh Sales for Fuel Factor	Workpaper 3	61,484,301		61,484,301
19	Fuel and Fuel-Related Costs cents/kWh	Line 17 / Line 18 / 10			2.200

Note: Rounding differences may occur

Line No.	Description		Residential	General Service Small	General Service Medium	General Service Large	Lighting	Total
1	NC Projected Billing Period MWh Sales	Revised Workpaper 8	16,171,290	1,784,993	10,287,749	9,128,353	377,978	37,750,364
Calculation of Renewable and Qualifying Facilities Purchased Power Capacity Rate by Class								
2	Renewable Purchased Power Capacity	Workpaper 4						Amount \$ 26,962,441
3	Purchases from Qualifying Facilities Capacity	Workpaper 4						39,344,300
4	Total of Renewable and Qualifying Facilities Purchased Power Capacity	Line 2 + Line 3						\$ 66,306,741
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Revised Workpaper 14						60.07%
6	NC Renewable and Qualifying Facilities Purchased Power Capacity	Line 5 * Line 6						\$ 39,828,420
7	Production Plant Allocation Factors	Revised Workpaper 14	48.01%	6.46%	29.31%	16.22%	0.00%	100.000%
8	Renewable and Qualifying Facilities Purchased Power Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 19,120,155	\$ 2,571,682	\$ 11,675,300	\$ 6,461,283	\$ -	\$ 39,828,420
9	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.118	0.144	0.113	0.071	-	0.106
Summary of Total Rate by Class								
			cents/KWh	cents/KWh	cents/KWh	cents/KWh	cents/KWh	
10	Fuel and Fuel-Related Costs excluding Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	2.037	2.071	2.175	2.172	1.558	
11	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 9	0.118	0.144	0.113	0.071	-	
12	Total adjusted Fuel and Fuel-Related Costs cents/kWh	Line 10 + Line 11	2.155	2.215	2.288	2.243	1.558	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	0.180	0.049	0.096	0.267	0.381	
14	EMF Interest Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	-	-	-	
15	Net Fuel and Fuel-Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	2.335	2.264	2.384	2.510	1.939	

Note: Rounding differences may occur

Line No.	Rate Class	Projected Billing Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease) cents/kWh	Current Total Fuel Rate (including renewables and EMF) E-2, Sub 1204 cents/kWh	Proposed Total Fuel Rate (including renewables and EMF) cents/kWh
		A	B	C	D	E	F	G
		Revised Workpaper 8	Revised Workpaper 12	Line 27 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Exhibit 1, Line 4	E + F = H
1	Residential	16,171,290	\$ 1,782,445,149	\$ (58,908,915)	-3.3%	(0.364)	2.699	2.335
2	Small General Service	1,784,993	233,805,982	(7,727,170)	-3.3%	(0.433)	2.697	2.264
3	Medium General Service	10,287,749	902,487,703	(29,826,764)	-3.3%	(0.290)	2.674	2.384
4	Large General Service	9,128,353	529,838,208	(17,510,886)	-3.3%	(0.192)	2.702	2.510
5	Lighting	377,978	92,358,220	(3,052,393)	-3.3%	(0.808)	2.747	1.939
6	NC Retail	37,750,364	\$ 3,540,935,260	\$ (117,026,128)				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Workpaper 10	\$ 1,353,733,247					
8	System Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	66,306,741					
9	System Other Fuel Costs	Line 7 - Line 8	\$ 1,287,426,506					
10	NC Retail Allocation % - sales at generation	Workpaper 11	61.59%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 792,925,985					
12	NC Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	39,828,420					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 832,754,405					
14	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 16	0					
15	NC Retail Total Fuel Costs	Line 13 + Line 14	\$ 832,754,405					
16	NC Projected Billing Period MWh Sales	Line 6, col A	37,750,364					
17	Calculated Fuel Rate cents/kWh	Line 15 / Line 16 / 10	2.206					
18	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.171					
19	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.000					
20	Total Proposed Composite Fuel Rate	Sum of Lines 15-17	2.377					
Total Current Composite Fuel Rate - Docket E-2 Sub 1204:								
21	Current composite Fuel Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 17	2.306					
22	Current composite EMF Rate cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 18	0.381					
23	Current composite EMF Interest cents/kWh	2019 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 19	0.000					
24	Total Current Composite Fuel Rate	Sum of Lines 21 - 23	2.687					
25	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 20 - Line 24	(0.310)					
26	NC Projected Billing Period MWh Sales	Line 6, col A	37,750,364					
27	Increase/(Decrease) in Fuel Costs	Line 25* Line 26 * 10	\$ (117,026,128)					

Note: Rounding differences may occur

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Proposed Composite Experience Modification Factor
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	2.686	2.236	2,728,574	\$ 12,291,799	-	\$ 12,291,799
2	May	2.782	2.239	2,833,194	15,364,636	-	15,364,636
3	June	2.680	2.249	3,213,527	13,827,917	-	13,827,917
4	July	2.754	2.252	3,688,282	18,528,663	-	18,528,663
5	August	2.735	2.254	3,723,369	17,897,273	-	17,897,273
6	September	2.540	2.249	3,556,134	10,361,598	-	10,361,598
7	October	2.432	2.240	3,108,120	5,957,660	-	5,957,660
8	November	2.896	2.229	2,604,857	17,356,270	-	17,356,270
9	December (New Rates - Sub 1204)	2.307	2.275	3,103,485	988,481	-	988,481
10	January 2020	2.074	2.310	3,148,281	(7,449,740)	-	(7,449,740)
11	February	2.137	2.311	3,069,536	(5,335,053)	-	(5,335,053)
12	March	2.154	2.306	2,878,564	(4,356,037)	-	(4,356,037)
13	Total Test Period			37,655,926	\$ 95,433,467	-	\$ 95,433,467
14	Booked 12-month (Over) / Under Recovery						\$ 95,433,467
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(41,484,352)
16	Total 9-month (Over) / Under Recovery						\$ 53,949,115
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(1,651,186)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						5,296,291
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						7,260,171
20	Replacement power cost adjustment						(100,000)
21	Total Adjusted (Over) / Under Recovery Request						\$ 64,754,391
22	Normalized Test Period MWh Sales		Exhibit 4				37,852,870
23	Experience Modification Increment / (Decrement) cents/KWh						0.171

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Residential
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	(Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	3.033	2.311	1,060,985	\$ 7,664,663		\$ 7,664,663
2	May	3.295	2.311	1,051,096	10,340,265		10,340,265
3	June	2.843	2.311	1,331,074	7,081,848		7,081,848
4	July	2.794	2.311	1,602,414	7,741,904		7,741,904
5	August	2.784	2.311	1,612,109	7,629,308		7,629,308
6	September	2.723	2.311	1,460,214	6,009,364		6,009,364
7	October	2.841	2.311	1,166,428	6,177,517		6,177,517
8	November	3.306	2.311	999,969	9,946,288		9,946,288
9	December (New Rates - Sub 1204)	2.207	2.317	1,410,306	(1,556,451)		(1,556,451)
10	January 2020	1.956	2.326	1,438,353	(5,324,375)		(5,324,375)
11	February	2.031	2.326	1,391,776	(4,103,653)		(4,103,653)
12	March	2.160	2.326	1,235,463	(2,055,811)		(2,055,811)
13	Total Test Period			15,760,190	49,550,869	-	49,550,869
14	Booked 12-month (Over) / Under Recovery						\$ 49,550,869
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(25,086,775)
16	Total 9-month (Over) / Under Recovery						\$ 24,464,093
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(748,674)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						2,401,422
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						3,080,009
20	Replacement power cost adjustment						(42,919)
21	Total Adjusted (Over) / Under Recovery Request						\$ 29,153,931
22	Normalized Test Period MWh Sales		Exhibit 4				16,191,429
23	Experience Modification Increment (Decrement) cents/KWh						0.180

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Small General Service
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	(Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	2.930	2.556	136,059	\$ 508,889		\$ 508,889
2	May	2.974	2.556	144,225	603,324		603,324
3	June	2.793	2.556	167,849	397,399		397,399
4	July	2.873	2.556	193,031	612,524		612,524
5	August	2.758	2.556	201,636	406,378		406,378
6	September	2.604	2.556	189,089	91,426		91,426
7	October	2.447	2.556	167,741	(183,357)		(183,357)
8	November	3.270	2.556	125,205	894,152		894,152
9	December (New Rates - Sub 1204)	2.451	2.533	154,918	(127,643)		(127,643)
10	January 2020	2.156	2.499	155,579	(533,274)		(533,274)
11	February	2.177	2.499	154,850	(498,540)		(498,540)
12	March	2.249	2.499	141,377	(352,792)		(352,792)
13	Total Test Period			1,931,559	1,818,485	-	1,818,485
14	Booked 12-month (Over) / Under Recovery						\$ 1,818,485
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(1,509,612)
16	Total 9-month (Over) / Under Recovery						\$ 308,873
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(83,298)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						267,184
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						375,378
20	Replacement power cost adjustment						(4,911)
21	Total Adjusted (Over) / Under Recovery Request						\$ 863,226
22	Normalized Test Period MWh Sales		Exhibit 4				1,777,668
23	Experience Modification Increment (Decrement) cents/kWh						0.049

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Medium General Service
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	(Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	2.697	2.477	827,811	\$ 1,817,211		\$ 1,817,211
2	May	2.639	2.477	908,898	1,474,141		1,474,141
3	June	2.710	2.477	967,184	2,251,604		2,251,604
4	July	2.893	2.477	1,066,966	4,436,980		4,436,980
5	August	2.849	2.477	1,085,771	4,042,108		4,042,108
6	September	2.555	2.477	1,074,880	843,243		843,243
7	October	2.349	2.477	980,376	(1,250,862)		(1,250,862)
8	November	2.942	2.477	781,506	3,635,799		3,635,799
9	December (New Rates - Sub 1204)	2.526	2.468	849,236	487,730		487,730
10	January 2020	2.235	2.456	851,930	(1,879,357)		(1,879,357)
11	February	2.287	2.456	836,428	(1,410,803)		(1,410,803)
12	March	2.269	2.456	797,215	(1,487,684)		(1,487,684)
13	Total Test Period			11,028,202	12,960,111	-	12,960,111
14	Booked 12-month (Over) / Under Recovery						\$ 12,960,111
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(5,542,956)
16	Total 9-month (Over) / Under Recovery						\$ 7,417,155
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(449,937)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						1,443,204
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						2,123,029
20	Replacement power cost adjustment						(27,695)
21	Total Adjusted (Over) / Under Recovery Request						\$ 10,505,756
22	Normalized Test Period MWh Sales		Exhibit 4				10,949,334
23	Experience Modification Increment (Decrement) cents/KWh						0.096

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Large General Service
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	(Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	2.086	1.757	674,418	\$ 2,215,935		\$ 2,215,935
2	May	2.160	1.757	699,442	2,816,304		2,816,304
3	June	2.297	1.757	718,601	3,877,285		3,877,285
4	July	2.436	1.757	796,174	5,404,669		5,404,669
5	August	2.446	1.757	794,681	5,473,681		5,473,681
6	September	2.151	1.757	803,124	3,166,077		3,166,077
7	October	1.902	1.757	763,680	1,111,002		1,111,002
8	November	2.165	1.757	670,112	2,734,527		2,734,527
9	December (New Rates - Sub 1204)	2.196	1.877	660,159	2,102,953		2,102,953
10	January 2020	2.097	2.053	673,577	290,408		290,408
11	February	2.157	2.054	657,799	675,428		675,428
12	March	1.990	2.054	675,674	(430,337)		(430,337)
13	Total Test Period			8,587,442	29,437,932	-	29,437,932
14	Booked 12-month (Over) / Under Recovery						\$ 29,437,932
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(8,909,524)
16	Total 9-month (Over) / Under Recovery						\$ 20,528,408
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(353,848)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						1,134,991
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						1,614,722
20	Replacement power cost adjustment						(23,473)
21	Total Adjusted (Over) / Under Recovery Request						\$ 22,900,801
22	Normalized Test Period MWh Sales		Exhibit 4				8,584,996
23	Experience Modification Increment (Decrement) cents/KWh						0.267

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Lighting
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Line No.	Month	Fuel Cost Incurred ¢/ kWh (a)	Fuel Cost Billed ¢/ kWh (b)	NC Retail MWh Sales (c)	(Over)/Under Recovery (d)	Adjustments (e)	Adjusted (Over)/Under Recovery (f)
1	April 2019 (Sub 1173)	2.541	2.251	29,301	\$ 85,101		\$ 85,101
2	May	2.693	2.251	29,533	130,603		130,603
3	June	3.014	2.251	28,819	219,780		219,780
4	July	3.371	2.251	29,697	332,585		332,585
5	August	3.436	2.251	29,171	345,798		345,798
6	September	3.123	2.251	28,826	251,488		251,488
7	October	2.597	2.251	29,896	103,360		103,360
8	November	2.769	2.251	28,066	145,504		145,504
9	December (New Rates - Sub 1204)	2.521	2.237	28,866	81,892		81,892
10	January 2020	2.206	2.217	28,842	(3,142)		(3,142)
11	February	2.226	2.217	28,683	2,515		2,515
12	March	2.115	2.217	28,834	(29,414)		(29,414)
13	Total Test Period			348,533	1,666,070	-	1,666,070
14	Booked 12-month (Over) / Under Recovery						\$ 1,666,070
15	Adjustment to exclude Under Recovery - April - June 2019 ⁽¹⁾						(435,484)
16	Total 9-month (Over) / Under Recovery						\$ 1,230,586
17	Adjustment to exclude test period by-product net gain/loss accrued expense per Docket No. E-2 Sub 1204 Order						(15,429)
18	Adjustment to include test period by-product net gain/loss cash payments per Docket No. E-2 Sub 1204 Order						49,490
19	Adjustment to include Docket No. E-2 Sub 1204 costs per Order						67,033
20	Replacement power cost adjustment						(1,002)
21	Total Adjusted (Over) / Under Recovery Request						\$ 1,330,678
22	Normalized Test Period MWh Sales		Exhibit 4				349,444
23	Experience Modification Increment (Decrement) cents/KWh						0.381

Notes:

Totals may not foot due to rounding.

⁽¹⁾ April - June 2019 filed in fuel Docket E-2, Sub 1204 are included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 15.

North Carolina Annual Fuel and Fuel-Related Expense

Normalized Test Period MWh Sales, Fuel and Fuel-Related Revenue, Fuel and Fuel-Related Expense, and System Peak

Twelve Months Ended March 31, 2020

Billing Period December 1, 2020 - November 30, 2021

Docket No. E-2, Sub 1250

Line No.	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina Small General Service	North Carolina Medium General Service	North Carolina Large General Service	North Carolina Lighting
1	Test Period MWh Sales	Workpaper 9	61,765,556	37,655,926	15,760,190	1,931,559	11,028,202	8,587,442	348,533
2	Customer Growth MWh Adjustment	Workpaper 9	198,273	88,359	101,073	809	(18,408)	3,976	911
3	Weather MWh Adjustment	Workpaper 9	411,864	108,585	330,167	(154,700)	(60,460)	(6,422)	-
4	Total Adjusted MWh Sales	Sum Lines 1-3	62,375,693	37,852,870	16,191,429	1,777,668	10,949,334	8,584,996	349,444
5	Test Period Fuel and Fuel-Related Revenue *		\$ 1,397,284,269	\$ 852,009,744					
6	Test Period Fuel and Fuel-Related Expense *		\$ 1,557,246,310	\$ 947,443,211					
7	Test Period Unadjusted (Over)/Under Recovery	Line 5 - Line 6	\$ 159,962,041	\$ 95,433,467					
			2019 Winter Coincidental Peak (CP) KW						
8	Total System Peak		13,207,703						
9	NC Retail		8,014,112						
10	NC Residential Peak		4,560,461						
11	NC Small General Service		427,579						
12	NC Medium General Service		1,994,881						
13	NC Large General Service		1,031,190						

Notes:

* Total Company Fuel and Fuel-Related Revenue and Fuel and Fuel-Related Expense are quantified based on NC Retail's knowr share of revenues and expenses grossed up to also include the percentage of sales not belonging to NC Retail.

Rounding differences may occur.

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Nuclear Capacity Ratings - MWs
Twelve Months Ended March 31, 2020
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Exhibit 5

<u>Unit</u>	<u>Rate Case Docket E-2, Sub 1142</u>	<u>Fuel Docket E-2, Sub 1204</u>	<u>Proposed Capacity Rating MW</u>
Brunswick 1	938	938	938
Brunswick 2	932	932	932
Harris 1	928	964	964
Robinson 2	741	741	759
 Total Company	 <u><u>3,539</u></u>	 <u><u>3,575</u></u>	 <u><u>3,593</u></u>

**Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Monthly Fuel and Baseload Report for March 2020
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250**

Harrington Exhibit 6

**March 2020
Monthly Fuel Filing and Baseload Report Cover Sheet**

Schedule 1

DUKE ENERGY PROGRESS
 SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-2, Sub 1225

<u>Line No.</u>	Fuel Expenses:	<u>March 2020</u>	<u>12 Months Ended March 2020</u>
1	Total Fuel and Fuel-Related Costs	\$ 97,552,730	\$ 1,546,653,740
	MWH sales:		
2	Total System Sales	4,793,325	67,320,898
3	Less intersystem sales	<u>242,171</u>	<u>5,555,343</u>
4	Total sales less intersystem sales	<u>4,551,154</u>	<u>61,765,555</u>
5	Total fuel and fuel-related costs (¢/KWH) (Line 1/Line 4)	<u>2.143</u>	<u>2.504</u>
6	Current fuel & fuel-related cost component (¢/KWH) (per Schedule 4, Line 5a Total)	<u>2.306</u>	
	Generation Mix (MWH):		
	Fossil (By Primary Fuel Type):		
7	Coal	233,017	8,371,720
8	Oil	986	59,067
9	Natural Gas - Combustion Turbine	198,698	2,350,810
10	Natural Gas - Combined Cycle	1,486,370	19,405,345
11	Biogas	<u>1,544</u>	<u>12,032</u>
12	Total Fossil	<u>1,920,615</u>	<u>30,198,973</u>
13	Nuclear	2,006,698	28,861,332
14	Hydro - Conventional	73,324	662,207
15	Solar Distributed Generation	19,038	258,435
16	Total MWH generation	<u>4,019,675</u>	<u>59,980,947</u>

Notes: Detail amounts may not add to totals shown due to rounding.

Schedule 2

DUKE ENERGY PROGRESS
 DETAILS OF FUEL AND FUEL-RELATED COSTS

Docket No. E-2, Sub 1225

Description	March 2020	12 Months Ended March 2020
Fuel and Fuel-Related Costs:		
Steam Generation - Account 501		
0501110 coal consumed - steam	\$ 9,364,725	\$ 311,732,857
0501310 fuel oil consumed - steam	215,303	6,525,088
Total Steam Generation - Account 501	<u>9,580,028</u>	<u>318,257,945</u>
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	11,643,238	175,626,194
Other Generation - Account 547		
0547000 natural gas consumed - Combustion Turbine	5,077,428	90,464,471
0547000 natural gas consumed - Combined Cycle	40,711,781	532,121,009
0547106 biogas consumed - Combined Cycle	70,811	571,723
0547200 fuel oil consumed	23,785	4,305,680
Total Other Generation - Account 547	<u>45,883,805</u>	<u>627,462,883</u>
Reagents		
Catalyst Depreciation	114,923	1,555,239
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	511,642	15,418,914
Total Reagents	<u>626,565</u>	<u>16,974,153</u>
By-products		
Net proceeds from sale of by-products	825,205	11,977,751
Total By-products	<u>825,205</u>	<u>11,977,751</u>
Total Fossil and Nuclear Fuel Expenses Included in Base Fuel Component		
	68,558,841	1,150,298,926
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (PURPA)	1,566,684	40,857,994
Capacity component of purchased power (renewables)	2,103,735	44,459,825
Fuel and fuel-related component of purchased power	29,257,564	427,271,568
Total Purchased Power and Net Interchange - Account 555	<u>32,927,983</u>	<u>512,589,387</u>
Less:		
Fuel and fuel-related costs recovered through intersystem sales	3,933,994	116,225,906
Solar Integration Charge	100	8,667
Total Fuel Credits - Accounts 447/456	<u>3,934,094</u>	<u>116,234,573</u>
Total Fuel and Fuel-Related Costs	<u>\$ 97,552,730</u>	<u>\$ 1,546,653,740</u>

Notes:

Detail amounts may not add to totals shown due to rounding.

**DUKE ENERGY PROGRESS
 PURCHASED POWER AND INTERCHANGE
 SYSTEM REPORT - NORTH CAROLINA VIEW**

MARCH 2020

**Schedule 3, Purchases
 Page 1 of 4**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Economic	\$	\$				
Alcoa Power Marketing Inc.	-	-	-	-	-	-
Broad River Energy, LLC.	\$ 1,627,028	\$ 996,440	10,226	\$ 336,614	\$ 293,974	
City of Fayetteville	687,231	702,000	-	(14,769)	-	
DE Carolinas - Native Load Transfer	3,278,662	-	193,690	2,826,692	476,361	\$ (24,391)
DE Carolinas - Native Load Transfer Benefit	638,770	-	-	638,770	-	
DE Carolinas - Fees	(5,573)	-	-	-	(5,573)	
Haywood EMC	28,550	28,550	-	-	-	
NCEMC	2,872,255	2,635,688	6,663	206,223	30,344	
PJM Interconnection, LLC.	528	-	-	-	528	
Southern Company Services	2,760,936	687,323	94,186	1,700,829	372,784	
	\$ 11,888,387	\$ 5,050,001	304,765	\$ 5,694,359	\$ 1,168,418	\$ (24,391)
Renewable Energy						
REPS	\$ 13,061,139	-	205,875	-	\$ 13,061,139	-
DERP Qualifying Facilities	44,087	-	917	-	44,087	-
	\$ 13,105,226		206,792		\$ 13,105,226	
HB589 PURPA Purchases						
Qualifying Facilities	\$ 12,945,019	-	270,356	-	\$ 12,945,019	-
	\$ 12,945,019		270,356		\$ 12,945,019	
Non-dispatchable						
DE Carolinas - Emergency	\$ 11,826	-	500	\$ 7,214	-	\$ 4,612
Dominion Energy South Carolina - Emergency	5,150	-	103	3,142	-	2,008
Energy Imbalance	4,608	-	270	4,208	-	400
Generation Imbalance	651	-	47	397	-	254
Qualifying Facilities	-	-	-	-	-	-
	\$ 22,235		920	\$ 14,961		\$ 7,274
Total Purchased Power	\$ 37,960,867	\$ 5,050,001	782,833	\$ 5,709,320	\$ 27,218,663	\$ (17,117)

NOTES: Detail amounts may not add to totals shown due to rounding.

**DUKE ENERGY PROGRESS
 INTERSYSTEM SALES*
 SYSTEM REPORT - NORTH CAROLINA VIEW**

MARCH 2020

**Schedule 3, Sales
 Page 2 of 4**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
Market Based:					
NCEMC Purchase Power Agreement	\$ 898,429	\$ 652,500	9,474	\$ 153,777	\$ 92,152
PJM Interconnection, LLC.	238,782	-	18,913	279,031	(40,249)
Other:					
DE Carolinas - Native Load Transfer Benefit	\$ 546,006	-	-	\$ 546,006	-
DE Carolinas - Native Load Transfer	3,130,805	-	213,775	2,955,180	\$ 175,625
Generation Imbalance	-	-	9	-	-
Total Intersystem Sales	\$ 4,814,022	\$ 652,500	242,171	\$ 3,933,994	\$ 227,528

* Sales for resale other than native load priority.

NOTE: Detail amounts may not add to totals shown due to rounding.

**DUKE ENERGY PROGRESS
 PURCHASED POWER AND INTERCHANGE
 SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended
 MARCH 2020**

**Schedule 3, Purchases
 Page 3 of 4**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Economic	\$	\$				
Broad River Energy, LLC.	\$ 63,826,838	\$ 44,358,458	365,707	\$ 12,819,480	\$ 6,648,900	
City of Fayetteville	13,551,418	12,493,350	16,660	779,150	278,918	
DE Carolinas - Native Load Transfer	38,316,583	-	1,608,874	32,145,110	6,144,973	\$ 26,499
DE Carolinas - Native Load Transfer Benefit	4,193,107	-	-	4,193,107	-	
DE Carolinas - Fees	98,267	-	-	-	98,267	
Haywood EMC	362,219	356,383	168	5,836	-	
NCEMC	43,861,751	36,366,933	190,587	6,980,814	514,004	
PJM Interconnection, LLC.	270,556	-	8,237	161,533	109,023	
Southern Company Services	47,215,492	14,213,809	1,223,097	26,600,709	6,400,974	
	\$ 211,696,231	\$ 107,788,933	3,413,330	\$ 83,685,739	\$ 20,195,059	\$ 26,499
Renewable Energy						
REPS	\$ 219,298,567	-	3,196,429	-	\$ 219,298,567	-
DERP Net Metering Excess Generation	16,899	\$ 2,915	394	-	-	\$ 13,984
DERP Qualifying Facilities	600,306	-	12,314	-	600,306	-
	\$ 219,915,772	\$ 2,915	3,209,137	-	\$ 219,898,873	\$ 13,984
HB589 PURPA Purchases						
Qualifying Facilities	\$ 187,902,788	-	3,206,430	-	\$ 187,902,788	-
	\$ 187,902,788	-	3,206,430	-	\$ 187,902,788	-
Non-dispatchable						
DE Carolinas - Emergency	\$ 44,432	-	1,869	\$ 27,104	-	\$ 17,328
DE Carolinas - Reliability	1,163,688	-	20,232	709,850	-	453,838
Dominion Energy South Carolina - Emergency	5,150	-	103	3,142	-	2,008
Virginia Electric and Power Company - Emergency	43,433	-	1,415	26,358	-	17,075
Energy Imbalance	147,661	-	5,751	137,267	-	10,394
Generation Imbalance	4,656	-	434	3,207	-	1,449
	\$ 1,409,020	-	29,804	\$ 906,928	-	\$ 502,092
Total Purchased Power	\$ 620,923,811	\$ 107,791,848	9,858,701	\$ 84,592,667	\$ 427,996,720	\$ 542,575

NOTES: Detail amounts may not add to totals shown due to rounding.

**DUKE ENERGY PROGRESS
 INTERSYSTEM SALES*
 SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended
 MARCH 2020**

**Schedule 3, Sales
 Page 4 of 4**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
Utilities:					
DE Carolinas - Emergency	\$ 132,012	-	1,452	\$ 80,527	\$ 51,485
DE Carolinas - As Available Capacity	216,196	\$ 216,196	-	-	-
Market Based:					
NCEMC Purchase Power Agreement	\$ 11,415,531	\$ 7,830,001	113,371	\$ 2,901,323	\$ 684,206
PJM Interconnection, LLC.	1,321,164	-	66,917	1,234,943	86,220
Other:					
DE Carolinas - Native Load Transfer Benefit	\$ 12,206,819	-	-	\$ 12,206,819	-
DE Carolinas - Native Load Transfer	105,109,458	-	5,372,692	99,782,117	\$ 5,327,342
Generation Imbalance	23,750	-	911	20,177	3,572
Total Intersystem Sales	\$ 130,424,930	\$ 8,046,197	5,555,343	\$ 116,225,906	\$ 6,152,825

* Sales for resale other than native load priority.

NOTES: Detail amounts may not add to totals shown due to rounding.

Schedule 4

DUKE ENERGY PROGRESS
(OVER) / UNDER RECOVERY OF FUEL COSTS
MARCH 2020

Line No.		Residential	Small General Service	Medium General Service	Large General Service	Lighting	Total
1	1a. System Retail kWh sales						4,551,154,460
	1b. System kWh Sales at generation						4,710,432,773
2	2a. DERP Net Metered kWh generation						2,529,301
	2b. Line loss percentage from Cost of Service						3.909%
	2c. DERP Net Metered kWh at generation						2,628,171
3	Adjusted System kWh sales						4,713,060,944
4	4a. N.C. Retail kWh sales						2,878,563,877
	4b. Line loss percentage from Cost of Service						4.502%
	4c. NC kWh Sales at generation						2,998,084,712
	4d. NC allocation % by customer class						1.005%
	4e. NC retail % of actual system total						63.648%
	4f. NC retail % of adjusted system total						63.612%
5	Approved fuel and fuel-related rates (¢/kWh)						
	5a Billed rates by class (¢/kWh)						2.306
	5b Billed fuel expense						\$66,367,095
6	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (¢/kWh)						
	6a New approved Docket E-2, Sub 1204 allocation factor						100.00%
	6b System incurred expense						\$93,963,527
	6c. NC incurred expense by class						\$59,772,079
	6d NC Incurred base fuel rates (¢/kWh)						2.11442
7	Incurred renewable purchased power capacity rates (¢/kWh)						
	7a NC retail production plant %						61.001%
	7b Production plant allocation factors						100.00%
	7c System incurred expense						\$3,670,419
	7d NC incurred renewable capacity expense						\$2,238,985
	7e NC incurred rates by class						0.07778
8	Total incurred rates by class (¢/kWh)						2.1150
9	Difference in ¢/kWh (incurred - billed)						(0.10201)
10	(Over) / under recovery [See footnote]						(\$4,356,038)
11	Prior period adjustments						
12	Total (over) / under recovery [See footnote]						(\$4,356,038)
13	Total System Incurred Expenses						\$97,633,946
14	Less: Jurisdictional allocation adjustment						81,216
15	Total Fuel and Fuel-related Costs per Schedule 2						\$97,552,730
16	(Over) / under recovery for each month of the current test period [See footnote]						

	(Over) / Under Recovery						Total Company
	Total To Date	Residential	Small General Service	Medium General Service	Large General Service	Lighting	
April 2019	\$ 12,291,799	7,664,663	508,889	1,817,211	2,215,935	85,101	\$ 12,291,799
May	27,656,436	10,340,265	603,324	1,474,141	2,816,304	130,603	15,364,637
June	41,484,352	7,081,848	397,399	2,251,604	3,877,285	219,780	13,827,916
July	60,013,014	7,741,904	612,524	4,436,980	5,404,669	332,585	18,528,662
August	77,910,287	7,629,308	406,378	4,042,108	5,473,681	345,798	17,897,273
September	88,271,887	6,009,366	91,425	843,244	3,166,077	251,488	10,361,600
October	94,229,547	6,177,517	(183,357)	(1,250,862)	1,111,002	103,360	5,957,660
November	111,585,817	9,946,288	894,152	3,635,799	2,734,527	145,504	17,356,270
December	112,574,298	(1,556,451)	(127,643)	487,730	2,102,953	81,892	988,481
January 2020	105,124,558	(5,324,375)	(533,274)	(1,879,357)	290,408	(3,142)	(7,449,740)
February	99,789,505	(4,103,653)	(498,540)	(1,410,803)	675,428	2,515	(5,335,053)
March	95,433,467	(2,055,811)	(352,792)	(1,487,684)	(430,337)	(29,414)	(4,356,038)
Total	\$ 49,550,869	\$ 1,818,485	\$ 12,960,111	\$ 29,437,932	\$ 1,666,070	\$ 95,433,467	

Notes:

Detail amounts may not recalculate due to percentages presented as rounded.

Presentation of over or under collected amounts reflects a regulatory asset or liability. Over collections, or regulatory liabilities, are shown as negative amounts. Under collections, or regulatory assets, are shown as positive amounts.

_/1 Includes prior period adjustments.

Duke Energy Progress
Fuel and Fuel Related Cost Report
March 2020

Description	Mayo Steam	Roxboro Steam	Asheville CC/CT	Smith Energy Complex CC/CT	Sutton CC/CT	Lee CC	Blewett CT
Cost of Fuel Purchased (\$)							
Coal	\$2,420,963	\$7,824,994	-	-	-	-	-
Oil	204,995	14,078	\$3,465	-	-	-	-
Gas - CC	-	-	4,725,951	\$9,361,202	\$11,514,782	\$15,109,846	-
Gas - CT	-	-	1,856,581	2,804,626	416,159	-	-
Biogas	-	-	-	404,835	-	-	-
Total	\$2,625,958	\$7,839,072	\$6,585,997	\$12,165,828	\$11,930,941	\$15,109,846	-
Average Cost of Fuel Purchased (¢/MBTU)							
Coal	392.25	414.98	-	-	-	-	-
Oil	1,318.64	1,357.57	-	-	-	-	-
Gas - CC	-	-	423.17	319.30	406.82	345.22	-
Gas - CT	-	-	332.10	318.05	447.68	-	-
Biogas	-	-	-	2,697.10	-	-	-
Weighted Average	415.01	415.49	392.79	329.30	408.12	345.22	-
Cost of Fuel Burned (\$)							
Coal	\$2,306,334	\$7,058,391	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-
Oil - Steam/CT	139,059	76,244	\$1,792	-	-	-	\$4,939
Gas - CC	-	-	4,725,951	\$9,361,202	\$11,514,782	\$15,109,846	-
Gas - CT	-	-	1,856,581	2,804,626	416,159	-	-
Biogas	-	-	-	404,835	-	-	-
Nuclear	-	-	-	-	-	-	-
Total	\$2,445,393	\$7,134,635	\$6,584,324	\$12,570,663	\$11,930,941	\$15,109,846	\$4,939
Average Cost of Fuel Burned (¢/MBTU)							
Coal	343.97	345.74	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-
Oil - Steam/CT	1,423.91	1,448.68	1,367.94	-	-	-	1,685.55
Gas - CC	-	-	423.17	319.30	406.82	345.22	-
Gas - CT	-	-	332.10	318.05	447.68	-	-
Biogas	-	-	-	2,697.10	-	-	-
Nuclear	-	-	-	-	-	-	-
Weighted Average	359.48	348.58	392.87	328.34	408.12	345.22	1,685.55
Average Cost of Generation (¢/kWh)							
Coal	4.08	4.00	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-
Oil - Steam/CT	16.88	16.43	16.57	-	-	-	-
Gas - CC	-	-	2.92	2.85	2.90	2.52	-
Gas - CT	-	-	4.03	1.95	4.28	-	-
Biogas	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Weighted Average	4.26	4.03	3.17	2.66	2.94	2.52	-
Burned MBTU's							
Coal	670,496	2,041,525	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-
Oil - Steam/CT	9,766	5,263	131	-	-	-	293
Gas - CC	-	-	1,116,797	2,931,744	2,830,444	4,376,842	-
Gas - CT	-	-	559,045	881,811	92,958	-	-
Biogas	-	-	-	15,010	-	-	-
Nuclear	-	-	-	-	-	-	-
Total	680,262	2,046,788	1,675,973	3,828,565	2,923,402	4,376,842	293
Net Generation (mWh)							
Coal	56,570	176,447	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-
Oil - Steam/CT	824	464	11	-	-	-	(88)
Gas - CC	-	-	161,897	328,030	396,470	599,973	-
Gas - CT	-	-	46,053	143,798	9,719	-	-
Biogas	-	-	-	1,544	-	-	-
Nuclear	-	-	-	-	-	-	-
Hydro (Total System)	-	-	-	-	-	-	-
Solar (Total System)	-	-	-	-	-	-	-
Total	57,394	176,911	207,961	473,372	406,189	599,973	(88)
Cost of Reagents Consumed (\$)							
Ammonia	\$9,305	\$45,466	-	\$21,317	-	-	-
Limestone	93,028	194,463	-	-	-	-	-
Re-emission Chemical	-	-	-	-	-	-	-
Sorbents	62,552	85,511	-	-	-	-	-
Urea	-	-	-	-	-	-	-
Total	\$164,885	\$325,440	-	\$21,317	-	-	-

Notes:

Detail amounts may not add to totals shown due to rounding.

Schedule excludes in-transit, terminal and tolling agreement activity.

Cents/MBTU and cents/kWh are not computed when costs and/or net generation is negative.

Lee and Wayne oil burn is associated with inventory consumption shown on Schedule 6 for Wayne.

Asheville Steam was retired effective January 29, 2020.

Re-emission chemical reagent expense is not recoverable in NC.

Duke Energy Progress
Fuel and Fuel Related Cost Report
March 2020

Schedule 5

Description	Darlington CT	Wayne County CT	Weatherspoon CT	Brunswick Nuclear	Harris Nuclear	Robinson Nuclear	Current Month	Total 12 ME March 2020
Cost of Fuel Purchased (\$)								
Coal	-	-	-	-	-	-	\$10,245,957	\$346,278,799
Oil	-	-	-	\$42	\$12,658	-	235,238	12,051,112
Gas - CC	-	-	-	-	-	-	40,711,781	532,121,009
Gas - CT	\$10	\$28	\$24	-	-	-	5,077,428	90,464,471
Biogas	-	-	-	-	-	-	404,835	2,449,337
Total	\$10	\$28	\$24	\$42	\$12,658	-	\$56,675,239	\$983,364,728
Average Cost of Fuel Purchased (¢/MBTU)								
Coal	-	-	-	-	-	-	409.37	343.77
Oil	-	-	-	-	1,223.00	-	1,335.21	1,482.46
Gas - CC	-	-	-	-	-	-	361.70	375.66
Gas - CT	333.33	17.95	-	-	-	-	331.00	364.34
Biogas	-	-	-	-	-	-	2,697.10	2,817.08
Weighted Average	333.33	17.95	-	-	1,223.00	-	370.09	366.82
Cost of Fuel Burned (\$)								
Coal	-	-	-	-	-	-	\$9,364,725	\$311,732,857
Oil - CC	-	-	-	-	-	-	-	525,645
Oil - Steam/CT	-	-	\$17,054	-	-	-	239,088	10,305,123
Gas - CC	-	-	-	-	-	-	40,711,781	532,121,009
Gas - CT	\$10	\$28	24	-	-	-	5,077,428	90,464,471
Biogas	-	-	-	-	-	-	404,835	2,449,337
Nuclear	-	-	-	\$4,451,280	\$3,888,768	\$3,303,190	11,643,238	175,626,195
Total	\$10	\$28	\$17,078	\$4,451,280	\$3,888,768	\$3,303,190	\$67,441,094	\$1,123,224,637
Average Cost of Fuel Burned (¢/MBTU)								
Coal	-	-	-	-	-	-	345.30	342.62
Oil - CC	-	-	-	-	-	-	-	1,568.39
Oil - Steam/CT	-	-	1,590.86	-	-	-	1,446.82	1,436.22
Gas - CC	-	-	-	-	-	-	361.70	375.66
Gas - CT	333.33	17.95	-	-	-	-	331.00	364.34
Biogas	-	-	-	-	-	-	2,697.10	2,817.08
Nuclear	-	-	-	55.89	56.40	55.67	56.00	58.34
Weighted Average	333.33	17.95	1,593.10	55.89	56.40	55.67	185.65	200.80
Average Cost of Generation (¢/kWh)								
Coal	-	-	-	-	-	-	4.02	3.72
Oil - CC	-	-	-	-	-	-	-	15.77
Oil - Steam/CT	-	-	-	-	-	-	24.25	18.49
Gas - CC	-	-	-	-	-	-	2.74	2.74
Gas - CT	-	-	-	-	-	-	2.56	3.85
Biogas	-	-	-	-	-	-	26.22	20.36
Nuclear	-	-	-	0.60	0.57	0.56	0.58	0.61
Weighted Average	-	-	-	0.60	0.57	0.56	1.68	1.87
Burned MBTU's								
Coal	-	-	-	-	-	-	2,712,021	90,985,978
Oil - CC	-	-	-	-	-	-	-	33,515
Oil - Steam/CT	-	-	1,072	-	-	-	16,525	717,518
Gas - CC	-	-	-	-	-	-	11,255,827	141,650,895
Gas - CT	3	156	-	-	-	-	1,533,973	24,829,552
Biogas	-	-	-	-	-	-	15,010	86,946
Nuclear	-	-	-	7,964,872	6,894,876	5,933,271	20,793,019	301,060,528
Total	3	156	1,072	7,964,872	6,894,876	5,933,271	36,326,375	559,364,932
Net Generation (mWh)								
Coal	-	-	-	-	-	-	233,017	8,371,720
Oil - CC	-	-	-	-	-	-	-	3,334
Oil - Steam/CT	(201)	-	(24)	-	-	-	986	55,733
Gas - CC	-	-	-	-	-	-	1,486,370	19,405,345
Gas - CT	(237)	(635)	-	-	-	-	198,698	2,350,810
Biogas	-	-	-	-	-	-	1,544	12,032
Nuclear	-	-	-	744,316	677,007	585,375	2,006,698	28,861,332
Hydro (Total System)	-	-	-	-	-	-	73,324	662,207
Solar (Total System)	-	-	-	-	-	-	19,038	258,435
Total	(438)	(635)	(24)	744,316	677,007	585,375	4,019,675	59,980,947
Cost of Reagents Consumed (\$)								
Ammonia	-	-	-	-	-	-	\$76,088	\$1,980,709
Limestone	-	-	-	-	-	-	287,491	9,805,521
Re-emission Chemical	-	-	-	-	-	-	-	-
Sorbents	-	-	-	-	-	-	148,063	2,979,668
Urea	-	-	-	-	-	-	-	653,016
Total	-	-	-	-	-	-	\$511,642	\$15,418,914

Duke Energy Progress
Fuel & Fuel-related Consumption and Inventory Report
March 2020

Schedule 6

Description	Mayo	Roxboro	Asheville	Smith Energy Complex	Sutton	Lee	Blewett
Coal Data:							
Beginning balance	575,815	1,186,269	-	-	-	-	-
Tons received during period	25,898	76,231	-	-	-	-	-
Inventory adjustments	-	-	-	-	-	-	-
Tons burned during period	27,394	80,375	-	-	-	-	-
Ending balance	574,319	1,182,125	-	-	-	-	-
MBTUs per ton burned	24.48	25.40	-	-	-	-	-
Cost of ending inventory (\$/ton)	84.19	87.70	-	-	-	-	-
Oil Data:							
Beginning balance	259,555	424,889	4,567,776	8,007,162	2,608,517	-	758,372
Gallons received during period	112,649	7,516	-	-	-	-	-
Miscellaneous use and adjustments	(388)	(7,516)	-	-	-	-	-
Gallons burned during period	70,951	38,094	856	-	-	-	2,087
Ending balance	300,865	386,795	4,566,920	8,007,162	2,608,517	-	756,285
Cost of ending inventory (\$/gal)	1.96	2.00	2.09	2.33	2.80	-	2.37
Natural Gas Data:							
Beginning balance	-	-	-	-	-	-	-
MCF received during period	-	-	1,623,167	3,681,099	2,823,091	4,226,526	-
MCF burned during period	-	-	1,623,167	3,681,099	2,823,091	4,226,526	-
Ending balance	-	-	-	-	-	-	-
Biogas Data:							
Beginning balance	-	-	-	-	-	-	-
MCF received during period	-	-	-	14,493	-	-	-
MCF burned during period	-	-	-	14,493	-	-	-
Ending balance	-	-	-	-	-	-	-
Limestone/Lime Data:							
Beginning balance	13,075	123,479	5,379	-	-	-	-
Tons received during period	-	191	23	-	-	-	-
Inventory adjustments	-	-	-	-	-	-	-
Tons consumed during period	1,609	4,483	-	-	-	-	-
Ending balance	11,466	119,187	5,402	-	-	-	-
Cost of ending inventory (\$/ton)	58.08	39.66	67.63	-	-	-	-

Notes:

Detail amounts may not add to totals shown due to rounding.
Schedule excludes in-transit, terminal and tolling agreement activity.
Gas is burned as received; therefore, inventory balances are not maintained.
The oil inventory data for Wayne reflects the common usage of the oil tank used
for both Wayne and Lee units.
Asheville Steam was retired effective January 29, 2020.

Duke Energy Progress
 Fuel & Fuel-related Consumption and Inventory Report
 March 2020

Schedule 6

Description	Darlington	Wayne County	Weatherspoon	Brunswick	Harris	Robinson	Current Month	Total 12 ME March 2020
Coal Data:								
Beginning balance	-	-	-	-	-	-	1,762,084	1,369,435
Tons received during period	-	-	-	-	-	-	102,129	3,993,739
Inventory adjustments	-	-	-	-	-	-	-	63,924
Tons burned during period	-	-	-	-	-	-	107,769	3,631,494
Ending balance	-	-	-	-	-	-	1,756,444	1,756,444
MBTUs per ton burned	-	-	-	-	-	-	25.17	25.05
Cost of ending inventory (\$/ton)	-	-	-	-	-	-	86.32	86.32
Oil Data:								
Beginning balance	10,082,557	11,323,612	601,018	161,668	289,531	78,040	39,162,697	38,635,967
Gallons received during period	-	-	-	-	7,499	-	127,664	5,890,663
Miscellaneous use and adjustments	-	-	-	-	-	-	(7,904)	(172,779)
Gallons burned during period	-	-	7,660	3,800	-	-	123,448	5,194,842
Ending balance	10,082,557	11,323,612	593,358	157,868	297,030	78,040	39,159,009	39,159,009
Cost of ending inventory (\$/gal)	2.39	2.40	2.23	2.32	2.32	2.32	2.36	2.36
Natural Gas Data:								
Beginning balance	-	-	-	-	-	-	-	-
MCF received during period	3	151	-	-	-	-	12,354,037	161,208,866
MCF burned during period	3	151	-	-	-	-	12,354,037	161,208,866
Ending balance	-	-	-	-	-	-	-	-
Biogas Data:								
Beginning balance	-	-	-	-	-	-	-	-
MCF received during period	-	-	-	-	-	-	14,493	84,148
MCF burned during period	-	-	-	-	-	-	14,493	84,148
Ending balance	-	-	-	-	-	-	-	-
Limestone/Lime Data:								
Beginning balance	-	-	-	-	-	-	141,933	84,576
Tons received during period	-	-	-	-	-	-	214	258,882
Inventory adjustments	-	-	-	-	-	-	-	12,499
Tons consumed during period	-	-	-	-	-	-	6,092	219,902
Ending balance	-	-	-	-	-	-	136,055	136,055
Cost of ending inventory (\$/ton)	-	-	-	-	-	-	42.32	42.32

Schedule 7

DUKE ENERGY PROGRESS
 ANALYSIS OF COAL PURCHASED
 MARCH 2020

STATION	TYPE	QUANTITY OF TONS DELIVERED	DELIVERED COST	DELIVERED COST PER TON
MAYO	SPOT	12,929	792,414	61.29
	CONTRACT	12,969	934,292	72.04
	FIXED TRANSPORTATION/ADJUSTMENTS	-	694,257	-
	TOTAL	25,898	2,420,963	93.48
ROXBORO	SPOT	25,684	1,746,247	67.99
	CONTRACT	50,547	3,462,512	68.50
	FIXED TRANSPORTATION/ADJUSTMENTS	-	2,616,235	-
	TOTAL	76,231	7,824,994	102.65
ALL PLANTS	SPOT	38,613	2,538,661	65.75
	CONTRACT	63,516	4,396,804	69.22
	FIXED TRANSPORTATION/ADJUSTMENTS	-	3,310,492	-
	TOTAL	102,129	\$ 10,245,957	\$ 100.32

Note: Asheville Steam was retired effective January 29, 2020.

Schedule 8

**DUKE ENERGY PROGRESS
ANALYSIS OF COAL QUALITY RECEIVED
MARCH 2020**

STATION	PERCENT MOISTURE	PERCENT ASH	HEAT VALUE	PERCENT SULFUR
MAYO	7.68	12.59	11,916	0.72
ROXBORO	7.13	10.10	12,368	1.51

Schedule 9

**DUKE ENERGY PROGRESS
 ANALYSIS OF OIL PURCHASED
 MARCH 2020**

	HARRIS	MAYO	ROXBORO
VENDOR	Hightowers Petroleum Co.	Greensboro Tank Farm	Greensboro Tank Farm
SPOT/CONTRACT	Contract	Contract	Contract
SULFUR CONTENT %	0	0	0
GALLONS RECEIVED	7,499	112,649	7,516
TOTAL DELIVERED COST	\$ 12,658	\$ 204,995	\$ 14,078
DELIVERED COST/GALLON	\$ 1.69	\$ 1.82	\$ 1.87
BTU/GALLON	138,000	138,000	138,000

Notes: Sampling charges of \$3,465 for the Asheville station as well as a price adjustment of \$42 at the Brunswick station are excluded.

Duke Energy Progress
Power Plant Performance Data
Twelve Month Summary
April, 2019 - March, 2020
Nuclear Units

<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Brunswick 1	7,128,000	938	86.51	86.63
Brunswick 2	7,769,042	932	94.90	95.08
Harris 1	7,573,813	964	89.44	88.78
Robinson 2	6,390,477	746	97.59	93.36

Duke Energy Progress
Power Plant Performance Data
Twelve Month Summary
April, 2019 through March, 2020
Combined Cycle Units

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Lee Energy Complex	1A	1,335,397	225	67.57	79.83
Lee Energy Complex	1B	1,324,225	227	66.41	79.42
Lee Energy Complex	1C	1,327,528	228	66.29	78.35
Lee Energy Complex	ST1	2,583,040	379	77.59	85.96
Lee Energy Complex	Block Total	6,570,190	1,059	70.63	81.62
Richmond County CC	7	1,238,043	194	72.65	84.85
Richmond County CC	8	1,207,755	194	70.87	83.83
Richmond County CC	ST4	1,402,448	182	87.72	92.23
Richmond County CC	9	1,111,924	216	58.60	67.03
Richmond County CC	10	1,126,860	216	59.39	67.38
Richmond County CC	ST5	1,517,693	248	69.67	72.67
Richmond County CC	Block Total	7,604,723	1,250	69.26	77.25
Sutton Energy Complex	1A	1,369,913	224	69.62	81.09
Sutton Energy Complex	1B	1,363,885	224	69.32	78.83
Sutton Energy Complex	ST1	1,669,503	271	70.13	86.87
Sutton Energy Complex	Block Total	4,403,301	719	69.72	82.57
Asheville CC	ACC CT5	442,184	122	41.29	95.33
Asheville CC	ACC CT7	212,473	109	22.35	97.81
Asheville CC	ACC ST6	188,230	47	45.83	91.08
Asheville CC	Block Total	842,887	278	34.65	95.54

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Power Plant Performance Data
 Twelve Month Summary
 April, 2019 through March, 2020**

Intermediate Steam Units

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Mayo 1	1,309,878	746	19.99	78.39
Roxboro 2	1,338,613	673	22.64	72.78
Roxboro 3	2,360,440	698	38.50	78.81
Roxboro 4	2,074,949	711	33.22	75.61

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Power Plant Performance Data
 Twelve Month Summary
 April, 2019 through March, 2020
 Other Cycling Steam Units**

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Asheville 1	521,985	192	37.30	95.85
Asheville 2	252,671	192	18.05	93.30
Roxboro 1	555,880	380	16.65	64.18

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Power Plant Performance Data
 Twelve Month Summary
 April, 2019 through March, 2020
 Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Asheville CT	382,417	364	91.89
Blewett CT	-689	68	96.98
Darlington CT	20,462	767	91.00
Richmond County CT	1,620,095	934	88.42
Sutton Fast Start CT	211,140	98	90.80
Wayne County CT	130,617	963	94.81
Weatherspoon CT	-196	164	80.15

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Power Plant Performance Data**

**Twelve Month Summary
April, 2019 through March, 2020
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Blewett	-421	27.0	0.00
Marshall	-271	4.0	5.26
Tillery	214,200	84.0	84.85
Walters	448,699	113.0	68.08

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Power Plant Performance Data
 Twelve Month Summary
 April, 2019 through March, 2020
 Pre-commercial Combined Cycle Units**

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first full month a station is in commercial operation. During the months specified below, Asheville CC produced pre-commercial generation.

Production Month	Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
November 2019	Asheville	ST8	97	n/a	n/a
December 2019	Asheville	ST8	-	n/a	n/a
January 2020	Asheville	ST8	-	n/a	n/a
February 2020	Asheville	ST8	-	n/a	n/a
March 2020	Asheville	ST8	(487)	n/a	n/a

Notes:

Asheville CT5 and ST6 were placed in service during December 2019, and Asheville CT7 was placed in service during January 2020; pre-commercial generation for those units is presented on the Twelve Month Summary for Combined Cycle Units.

**Duke Energy Progress
 Base Load Power Plant Performance Review Plan**

Period: March, 2020

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	02/29/2020 - 03/25/2020	575.75	Scheduled	B1R23 refueling outage	Refueling outage.	None
	1	03/25/2020 - 03/28/2020	72.02	Unscheduled	B1R23 refueling outage - outage extension due to safety relief valve leak	Safety relief valve leak.	The valve leak was repaired.
	2	None					
Harris	1	03/23/2020 - 03/25/2020	51.52	Unscheduled	Unit trip from full power on hydraulic control header pressure loss	Solenoid valve was opened causing a pressure transient that caused a pressure setpoint to be reached, which initiated an automatic reactor trip through the reactor protection system.	Site taking action to review valve online maintenance/replacement procedures to ensure similar situations are executed in a manner that avoids an automatic reactor trip in the future.
Robinson	2	None					

Duke Energy Progress Base Load Power Plant Performance Review Plan March 2020

DEP Asheville CC

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
ACC CT5	3/23/2020 1:36:00 AM To 4/1/2020 12:00:00 AM	Sch	9300 Transmission System Problems Other Than Catastroph	Transmission GMS outage	
ACC ST6	3/23/2020 1:30:00 AM To 4/1/2020 12:00:00 AM	Sch	9300 Transmission System Problems Other Than Catastroph	Planned Transmission GMS Outage	
ACC CT7	3/2/2020 5:33:00 PM To 3/2/2020 7:32:00 PM	Unsch	5190 Other Gas Turbine Auxiliary System Problems	All air compressors tripped by vendor	

Lee Energy Complex

No Outages at Baseload Units During the Month.

Mayo Station

No Outages at Baseload Units During the Month.

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
7	3/5/2020 9:34:00 PM To 3/5/2020 11:08:00 PM	Unsch	3619 Other Switchyard Equipment	Fire in switchyard reactor bank.	
8	3/5/2020 9:34:00 PM To 3/5/2020 11:31:00 PM	Unsch	3619 Other Switchyard Equipment	Fire in switchyard reactor bank.	
ST4	3/5/2020 9:34:00 PM To 3/6/2020 12:39:00 AM	Unsch	3619 Other Switchyard Equipment	Fire in switchyard reactor bank.	
9	2/28/2020 12:04:00 PM To 3/30/2020 8:00:00 PM	Sch	4840 Generator Inspection	Perform robotic inspection, Gen Med.	
10	2/28/2020 10:42:00 AM To 4/5/2020 10:14:00 AM	Sch	4899 Other Miscellaneous Generator Problems	Replace cracked support fixator. Perform Gen Med.	
ST5	2/28/2020 11:20:00 AM To 3/30/2020 8:00:00 PM	Sch	4640 Generator Seal Oil System And Seals	Replace seal oil regulator.	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020**

Roxboro Station

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
2	2/29/2020 12:00:00 AM To 4/1/2020 12:00:00 AM	Sch	1800	Major Boiler Overhaul (720 Hours or Longer)	Planned Outage	
3	3/31/2020 7:00:00 AM To 4/7/2020 4:30:00 PM	Sch	4260	Turbine Main Stop Valves	Turbine Stop Valve Inspection	
4	3/7/2020 12:00:00 AM To 4/1/2020 12:00:00 AM	Sch	1800	Major Boiler Overhaul (720 Hours or Longer)	Planned Outage	

Sutton Energy Complex

No Outages at Baseload Units During the Month.

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

March 2020
Brunswick Nuclear Station

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	938		932	
(B) Period Hours	743		743	
(C) Net Gen (mWh) and Capacity Factor (%)	45,281	6.50	699,035	100.95
(D) Net mWh Not Gen due to Full Schedule Outages	540,054	77.49	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	17,651	2.53	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	67,552	9.69	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	26,396	3.79	-6,559	-0.95
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	696,934	100.00%	692,476	100.00%
(K) Equivalent Availability (%)		7.05		99.69
(L) Output Factor (%)		50.69		100.95
(M) Heat Rate (BTU/NkWh)		12,888		10,559

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

March 2020
Harris Nuclear Station

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	743	
(C) Net Gen (mWh) and Capacity Factor (%)	677,007	94.52
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	49,662	6.93
* (G) Net mWh Not Gen due to Partial Forced Outages	-10,417	-1.45
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	716,252	100.00%
(K) Equivalent Availability (%)		91.95
(L) Output Factor (%)		101.56
(M) Heat Rate (BTU/NkWh)		10,184

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

March 2020
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	759	
(B) Period Hours	743	
(C) Net Gen (mWh) and Capacity Factor (%)	585,375	103.80
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-21,438	-3.80
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	563,937	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		103.80
(M) Heat Rate (BTU/NkWh)		10,136

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020
 DEP Asheville CC**

	ACC CT5	ACC ST6	Block Total
(A) MDC (mW)	190	90	280
(B) Period Hrs	743	743	743
(C) Net Generation (mWh)	89,323	46,132	135,455
(D) Capacity Factor (%)	63.27	68.99	65.11
(E) Net mWh Not Generated due to Full Scheduled Outages	40,736	19,305	60,041
(F) Scheduled Outages: percent of Period Hrs	28.86	28.87	28.86
(G) Net mWh Not Generated due to Partial Scheduled Outages	9,779	1,585	11,365
(H) Scheduled Derates: percent of Period Hrs	6.93	2.37	5.46
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	1,332	0	1,332
(N) Economic Dispatch: percent of Period Hrs	0.94	0.00	0.64
(O) Net mWh Possible in Period	141,170	66,870	208,040
(P) Equivalent Availability (%)	64.22	68.76	65.68
(Q) Output Factor (%)	88.94	96.99	91.52
(R) Heat Rate (BTU/NkWh)	8,372	0	5,521

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020
 DEP Asheville CC**

	ACC CT7	Block Total
(A) MDC (mW)	190	190
(B) Period Hrs	743	743
(C) Net Generation (mWh)	26,929	26,929
(D) Capacity Factor (%)	19.08	19.08
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	13,709	13,709
(H) Scheduled Derates: percent of Period Hrs	9.71	9.71
(I) Net mWh Not Generated due to Full Forced Outages	377	377
(J) Forced Outages: percent of Period Hrs	0.27	0.27
(K) Net mWh Not Generated due to Partial Forced Outages	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	100,155	100,155
(N) Economic Dispatch: percent of Period Hrs	70.95	70.95
(O) Net mWh Possible in Period	141,170	141,170
(P) Equivalent Availability (%)	90.02	90.02
(Q) Output Factor (%)	72.79	72.79
(R) Heat Rate (BTU/NkWh)	13,678	13,678

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	743	743	743	743	743
(C) Net Generation (mWh)	119,013	117,351	120,225	243,384	599,973
(D) Capacity Factor (%)	71.19	69.58	70.97	86.43	76.25
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	20,433	21,175	21,547	371	63,526
(H) Scheduled Derates: percent of Period Hrs	12.22	12.56	12.72	0.13	8.07
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	27,730	30,135	27,632	37,842	123,338
(N) Economic Dispatch: percent of Period Hrs	16.59	17.87	16.31	13.44	15.68
(O) Net mWh Possible in Period	167,175	168,661	169,404	281,597	786,837
(P) Equivalent Availability (%)	87.78	87.44	87.28	99.87	91.93
(Q) Output Factor (%)	71.19	69.58	70.97	86.43	76.25
(R) Heat Rate (BTU/NkWh)	9,405	9,688	9,529	4,014	7,298

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	194	194	182	570
(B) Period Hrs	743	743	743	743
(C) Net Generation (mWh)	105,582	101,705	122,737	330,024
(D) Capacity Factor (%)	73.25	70.56	90.76	77.93
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	14,829	14,821	4,809	34,459
(H) Scheduled Derates: percent of Period Hrs	10.29	10.28	3.56	8.14
(I) Net mWh Not Generated due to Full Forced Outages	304	378	561	1,243
(J) Forced Outages: percent of Period Hrs	0.21	0.26	0.41	0.29
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	23,427	27,238	7,118	57,783
(N) Economic Dispatch: percent of Period Hrs	16.25	18.90	5.26	13.64
(O) Net mWh Possible in Period	144,142	144,142	135,226	423,510
(P) Equivalent Availability (%)	89.50	89.46	96.03	91.57
(Q) Output Factor (%)	73.48	72.68	91.31	78.94
(R) Heat Rate (BTU/NkWh)	11,139	11,078	0	6,977

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	743	743	743	743
(C) Net Generation (mWh)	-225	-225	0	-450
(D) Capacity Factor (%)	0.00	0.00	0.00	0.00
(E) Net mWh Not Generated due to Full Scheduled Outages	154,440	160,488	177,320	492,248
(F) Scheduled Outages: percent of Period Hrs	96.23	100.00	96.23	97.43
(G) Net mWh Not Generated due to Partial Scheduled Outages	504	0	0	504
(H) Scheduled Derates: percent of Period Hrs	0.31	0.00	0.00	0.10
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	5,544	0	6,944	12,488
(N) Economic Dispatch: percent of Period Hrs	3.45	0.00	3.77	2.47
(O) Net mWh Possible in Period	160,488	160,488	184,264	505,240
(P) Equivalent Availability (%)	3.45	0.00	3.77	2.47
(Q) Output Factor (%)	0.00	0.00	0.00	0.00
(R) Heat Rate (BTU/NkWh)	0	0	0	0

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 March 2020
 Sutton Energy Complex**

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	743	743	743	743
(C) Net Generation (mWh)	121,465	122,337	152,668	396,470
(D) Capacity Factor (%)	72.98	73.51	75.82	74.22
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	20,061	19,689	1,857	41,608
(H) Scheduled Derates: percent of Period Hrs	12.05	11.83	0.92	7.79
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	24,906	24,406	46,828	96,139
(N) Economic Dispatch: percent of Period Hrs	14.96	14.66	23.26	18.00
(O) Net mWh Possible in Period	166,432	166,432	201,353	534,217
(P) Equivalent Availability (%)	87.95	88.17	99.08	92.21
(Q) Output Factor (%)	72.98	73.51	75.82	74.22
(R) Heat Rate (BTU/NkWh)	11,615	11,615	0	7,143

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Baseload Power Plant
 Performance Review Plan
 March 2020**

**Pre-commercial Generation
 Asheville Combined Cycle**

	Unit ST8	Block Total
(A) MDC (mW)		
(B) Period Hrs		
(C) Net Generation (mWh)	(487)	(487)
(D) Capacity Factor (%)		
(E) Net mWh Not Generated due to Full Scheduled Outages		
(F) Scheduled Outages: percent of Period Hrs		
(G) Net mWh Not Generated due to Partial Scheduled Outages		
(H) Scheduled Derates: percent of Period Hrs		
(I) Net mWh Not Generated due to Full Forced Outages		
(J) Forced Outages: percent of Period Hrs		
(K) Net mWh Not Generated due to Partial Forced Outages		
(L) Forced Derates: percent of Period Hrs		
(M) Net mWh Not Generated due to Economic Dispatch		
(N) Economic Dispatch: percent of Period Hrs		
(O) Net mWh Possible in Period		
(P) Equivalent Availability (%)		
(Q) Output Factor (%)		
(R) Heat Rate (BTU/NkWh)		

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first full month a station is in commercial operation. During the month specified above, Asheville CC produced pre-commercial generation.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
March 2020**

Mayo Station

Unit 1

(A) MDC (mW)	746
(B) Period Hrs	743
(C) Net Generation (mWh)	57,394
(D) Net mWh Possible in Period	554,278
(E) Equivalent Availability (%)	80.44
(F) Output Factor (%)	37.21
(G) Capacity Factor (%)	10.35

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
 Intermediate Power Plant Performance
 Review Plan
 March 2020**

	Roxboro Station		
	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	743	743	743
(C) Net Generation (mWh)	-941	180,495	-2,238
(D) Net mWh Possible in Period	500,039	518,614	528,273
(E) Equivalent Availability (%)	0.00	90.89	19.38
(F) Output Factor (%)	0.00	37.27	0.00
(G) Capacity Factor (%)	0.00	34.80	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Base Load Power Plant Performance Review Plan

April 2019 - March 2020
Brunswick Nuclear Station

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	938		932	
(B) Period Hours	8784		8784	
(C) Net Gen (mWh) and Capacity Factor (%)	7,128,000	86.51	7,769,042	94.90
(D) Net mWh Not Gen due to Full Schedule Outages	561,863	6.82	45,948	0.56
* (E) Net mWh Not Gen due to Partial Scheduled Outages	34,020	0.41	47,691	0.58
(F) Net mWh Not Gen due to Full Forced Outages	505,879	6.14	276,773	3.38
* (G) Net mWh Not Gen due to Partial Forced Outages	9,630	0.12	47,234	0.58
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,239,392	100.00%	8,186,688	100.00%
(K) Equivalent Availability (%)		86.63		95.08
(L) Output Factor (%)		99.39		98.79
(M) Heat Rate (BTU/NkWh)		10,499		10,629

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

April 2019 - March 2020
Harris Nuclear Station

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	8784	
(C) Net Gen (mWh) and Capacity Factor (%)	7,573,813	89.44
(D) Net mWh Not Gen due to Full Schedule Outages	869,962	10.27
* (E) Net mWh Not Gen due to Partial Scheduled Outages	61,610	0.73
(F) Net mWh Not Gen due to Full Forced Outages	49,662	0.59
* (G) Net mWh Not Gen due to Partial Forced Outages	-87,271	-1.03
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,467,776	100.00%
(K) Equivalent Availability (%)		88.78
(L) Output Factor (%)		100.34
(M) Heat Rate (BTU/NkWh)		10,305

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

Duke Energy Progress
Base Load Power Plant Performance Review Plan

April 2019 - March 2020
Robinson Nuclear Station

Unit 2

(A) MDC (mW)	759	
(B) Period Hours	8784	
(C) Net Gen (mWh) and Capacity Factor (%)	6,390,477	97.59
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	7,076	0.11
(F) Net mWh Not Gen due to Full Forced Outages	408,699	6.24
* (G) Net mWh Not Gen due to Partial Forced Outages	-258,014	-3.94
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,548,238	100.00%
(K) Equivalent Availability (%)		93.36
(L) Output Factor (%)		104.13
(M) Heat Rate (BTU/NkWh)		10,267

* Estimate
 FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020**

DEP Asheville CC

	ACC CT5	ACC ST6	Block Total
(A) MDC (mW)	183	94	276
(B) Period Hrs	5,856	4,392	4,392
(C) Net Generation (mWh)	442,184	188,230	630,414
(D) Capacity Factor (%)	41.29	45.83	42.55
(E) Net mWh Not Generated due to Full Scheduled Outages	41,296	19,305	60,601
(F) Scheduled Outages: percent of Period Hrs	3.86	4.70	4.09
(G) Net mWh Not Generated due to Partial Scheduled Outages	9,779	1,585	11,365
(H) Scheduled Derates: percent of Period Hrs	0.91	0.39	0.77
(I) Net mWh Not Generated due to Full Forced Outages	842	14,365	15,208
(J) Forced Outages: percent of Period Hrs	0.08	3.50	1.03
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	576,831	187,257	764,088
(N) Economic Dispatch: percent of Period Hrs	53.86	45.59	51.57
(O) Net mWh Possible in Period	1,070,933	410,743	1,481,676
(P) Equivalent Availability (%)	95.33	91.08	94.12
(Q) Output Factor (%)	78.79	96.71	83.40
(R) Heat Rate (BTU/NkWh)	10,009	0	7,021

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020
 DEP Asheville CC**

	ACC CT7	Block Total
(A) MDC (mW)	186	186
(B) Period Hrs	5,112	5,112
(C) Net Generation (mWh)	212,473	212,473
(D) Capacity Factor (%)	22.35	22.35
(E) Net mWh Not Generated due to Full Scheduled Outages	4,342	4,342
(F) Scheduled Outages: percent of Period Hrs	0.46	0.46
(G) Net mWh Not Generated due to Partial Scheduled Outages	13,709	13,709
(H) Scheduled Derates: percent of Period Hrs	1.44	1.44
(I) Net mWh Not Generated due to Full Forced Outages	3,173	3,173
(J) Forced Outages: percent of Period Hrs	0.33	0.33
(K) Net mWh Not Generated due to Partial Forced Outages	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	717,081	717,081
(N) Economic Dispatch: percent of Period Hrs	75.42	75.42
(O) Net mWh Possible in Period	950,777	950,777
(P) Equivalent Availability (%)	97.81	97.81
(Q) Output Factor (%)	62.14	62.14
(R) Heat Rate (BTU/NkWh)	10,213	10,213

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	8,784	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,335,397	1,324,225	1,327,528	2,583,040	6,570,190
(D) Capacity Factor (%)	67.57	66.41	66.29	77.59	70.63
(E) Net mWh Not Generated due to Full Scheduled Outages	140,610	146,124	166,296	434,675	887,704
(F) Scheduled Outages: percent of Period Hrs	7.11	7.33	8.30	13.06	9.54
(G) Net mWh Not Generated due to Partial Scheduled Outages	254,159	258,949	262,876	23,687	799,671
(H) Scheduled Derates: percent of Period Hrs	12.86	12.99	13.13	0.71	8.60
(I) Net mWh Not Generated due to Full Forced Outages	3,791	5,195	4,340	8,471	21,796
(J) Forced Outages: percent of Period Hrs	0.19	0.26	0.22	0.25	0.23
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	732	732
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.02	0.01
(M) Net mWh Not Generated due to Economic Dispatch	242,442	259,476	241,713	278,531	1,022,162
(N) Economic Dispatch: percent of Period Hrs	12.27	13.01	12.07	8.37	10.99
(O) Net mWh Possible in Period	1,976,400	1,993,968	2,002,752	3,329,136	9,302,256
(P) Equivalent Availability (%)	79.83	79.42	78.35	85.96	81.62
(Q) Output Factor (%)	74.70	73.57	73.91	89.57	79.47
(R) Heat Rate (BTU/NkWh)	9,208	9,404	9,370	4,439	7,406

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020
 Richmond County Station**

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	194	194	182	570
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,238,043	1,207,755	1,402,448	3,848,246
(D) Capacity Factor (%)	72.65	70.87	87.72	76.86
(E) Net mWh Not Generated due to Full Scheduled Outages	51,943	37,875	21,506	111,325
(F) Scheduled Outages: percent of Period Hrs	3.05	2.22	1.35	2.22
(G) Net mWh Not Generated due to Partial Scheduled Outages	199,018	206,053	91,016	496,087
(H) Scheduled Derates: percent of Period Hrs	11.68	12.09	5.69	9.91
(I) Net mWh Not Generated due to Full Forced Outages	7,139	31,658	5,129	43,926
(J) Forced Outages: percent of Period Hrs	0.42	1.86	0.32	0.88
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	6,515	6,515
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.41	0.13
(M) Net mWh Not Generated due to Economic Dispatch	207,953	220,755	72,073	500,781
(N) Economic Dispatch: percent of Period Hrs	12.20	12.95	4.51	10.00
(O) Net mWh Possible in Period	1,704,096	1,704,096	1,598,688	5,006,880
(P) Equivalent Availability (%)	84.85	83.83	92.23	86.86
(Q) Output Factor (%)	77.22	77.14	91.55	81.87
(R) Heat Rate (BTU/NkWh)	11,610	11,292	0	7,279

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020
 Richmond County Station**

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,111,924	1,126,860	1,517,693	3,756,477
(D) Capacity Factor (%)	58.60	59.39	69.67	62.89
(E) Net mWh Not Generated due to Full Scheduled Outages	462,503	460,206	556,247	1,478,956
(F) Scheduled Outages: percent of Period Hrs	24.38	24.26	25.53	24.76
(G) Net mWh Not Generated due to Partial Scheduled Outages	162,892	157,746	13,060	333,699
(H) Scheduled Derates: percent of Period Hrs	8.59	8.31	0.60	5.59
(I) Net mWh Not Generated due to Full Forced Outages	112	1,001	26,135	27,247
(J) Forced Outages: percent of Period Hrs	0.01	0.05	1.20	0.46
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	159,669	151,287	65,296	376,253
(N) Economic Dispatch: percent of Period Hrs	8.42	7.97	3.00	6.30
(O) Net mWh Possible in Period	1,897,344	1,897,344	2,178,432	5,973,120
(P) Equivalent Availability (%)	67.03	67.38	72.67	69.20
(Q) Output Factor (%)	82.05	81.70	96.75	87.30
(R) Heat Rate (BTU/NkWh)	11,470	11,463	0	6,834

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Base Load Power Plant
 Performance Review Plan
 April, 2019 through March, 2020
 Sutton Energy Complex**

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	8,784	8,784	8,784	8,784
(C) Net Generation (mWh)	1,369,913	1,363,885	1,669,503	4,403,301
(D) Capacity Factor (%)	69.62	69.32	70.13	69.72
(E) Net mWh Not Generated due to Full Scheduled Outages	105,321	127,799	197,500	430,621
(F) Scheduled Outages: percent of Period Hrs	5.35	6.50	8.30	6.82
(G) Net mWh Not Generated due to Partial Scheduled Outages	263,839	254,211	84,286	602,336
(H) Scheduled Derates: percent of Period Hrs	13.41	12.92	3.54	9.54
(I) Net mWh Not Generated due to Full Forced Outages	2,923	34,474	0	37,397
(J) Forced Outages: percent of Period Hrs	0.15	1.75	0.00	0.59
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	30,675	30,675
(L) Forced Derates: percent of Period Hrs	0.00	0.00	1.29	0.49
(M) Net mWh Not Generated due to Economic Dispatch	225,620	187,247	398,500	811,367
(N) Economic Dispatch: percent of Period Hrs	11.47	9.52	16.74	12.85
(O) Net mWh Possible in Period	1,967,616	1,967,616	2,380,464	6,315,696
(P) Equivalent Availability (%)	81.09	78.83	86.87	82.57
(Q) Output Factor (%)	75.93	76.35	76.81	76.39
(R) Heat Rate (BTU/NkWh)	11,604	11,594	0	7,201

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
 Baseload Power Plant
 Performance Review Plan
 April, 2019 through March, 2020**

**Pre-commercial Generation
 Asheville Combined Cycle**

	Unit ST8	Block Total
(A) MDC (mW)		
(B) Period Hrs		
(C) Net Generation (mWh)	(390)	(390)
(D) Capacity Factor (%)		
(E) Net mWh Not Generated due to Full Scheduled Outages		
(F) Scheduled Outages: percent of Period Hrs		
(G) Net mWh Not Generated due to Partial Scheduled Outages		
(H) Scheduled Derates: percent of Period Hrs		
(I) Net mWh Not Generated due to Full Forced Outages		
(J) Forced Outages: percent of Period Hrs		
(K) Net mWh Not Generated due to Partial Forced Outages		
(L) Forced Derates: percent of Period Hrs		
(M) Net mWh Not Generated due to Economic Dispatch		
(N) Economic Dispatch: percent of Period Hrs		
(O) Net mWh Possible in Period		
(P) Equivalent Availability (%)		
(Q) Output Factor (%)		
(R) Heat Rate (BTU/NkWh)		

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first full month a station is in commercial operation. During the months specified above, Asheville CC produced pre-commercial generation.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
April, 2019 through March, 2020**

Mayo Station

Units	Unit 1
(A) MDC (mW)	746
(B) Period Hrs	8,784
(C) Net Generation (mWh)	1,309,878
(D) Net mWh Possible in Period	6,552,864
(E) Equivalent Availability (%)	78.39
(F) Output Factor (%)	44.14
(G) Capacity Factor (%)	19.99

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
April, 2019 through March, 2020**

Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	8,784	8,784	8,784
(C) Net Generation (mWh)	1,338,613	2,360,440	2,074,949
(D) Net mWh Possible in Period	5,911,632	6,131,232	6,245,424
(E) Equivalent Availability (%)	72.78	78.81	75.61
(F) Output Factor (%)	61.38	55.52	65.21
(G) Capacity Factor (%)	22.64	38.50	33.22

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Proposed Nuclear Capacity Factor
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 1

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs	8,052,542	7,453,018	7,708,915	6,515,863	29,730,338
Hours in Year	8,760	8,160	8,160	8,760	8,760
MDC	938	932	964	759	3,593
Cost	\$ 50,373,402	\$ 47,366,985	\$ 47,120,590	\$ 39,582,952	\$ 184,443,928
\$/MWhs	\$ 6.26	\$ 6.36	\$ 6.11	\$ 6.07	

Avg. \$/MWhs **\$ 6.2039**
Cents per kWh **0.6204**

	GWhs	Capacity Rating MDC	Hours	Proposed Nuclear Capacity Factor
Brunswick 1	8,053	938	8,760	98.00%
Brunswick 2	7,453	932	8,160	98.00%
Harris 1	7,709	964	8,160	98.00%
Robinson 1	6,516	759	8,760	98.00%
	29,730	3,593	8,760	94.46%

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
NERC 5 Year Average Nuclear Capacity Factor
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 2

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs with NERC applied	7,759,200	7,181,515	7,244,807	5,938,079	28,123,601
Hours in Year	8,760	8,160	8,160	8,760	8,760
MDC	938	932	964	759	3,593
Capacity Factor-NERC 5yr Avg	0.9443	0.9443	0.9210	0.8931	
Cost (\$)	\$ 48,137,269	\$ 44,553,371	\$ 44,946,030	\$ 36,839,225	\$ 174,475,894
\$/MWhs	\$ 6.20	\$ 6.20	\$ 6.20	\$ 6.20	
Avg. \$/MWhs					\$ 6.20
Cents per kWh					0.6204

	Capacity Rating		
	MDC	NCF Rating	Weighted Average
Brunswick 1	938	94.43%	24.65%
Brunswick 2	932	94.43%	24.49%
Harris 1	964	92.10%	24.71%
Robinson 1	759	89.31%	18.87%
	<u>3,593</u>		<u>92.72%</u>

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
North Carolina Generation in MWhs
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 3

Resource Type	MWh	
	Dec'20-Nov'21	
Nuclear		29,388,347
Adjust for Higher Nuclear Capacity Factor		341,992
Adjusted Nuclear Total		<u>29,730,338</u>
Coal		8,282,666
Adjust for Higher Nuclear Capacity Factor		(341,992)
Adjusted Coal Total		<u>7,940,674</u>
Gas CT and CC Total		18,943,545
Total Hydro		650,353
Utility Owned Solar Generation		256,176
Total Net Generation		<u>57,521,087</u>
Purchases for REPS Compliance	2,328,214	
Purchases from Qualifying Facilities	4,131,985	
Purchases from Dispatchable Units	1,668,028	
Emergency & DSM Purchases	23,807	
Allocated Economic Purchases	238,305	
Joint Dispatch Fuel Transfer Purchases	1,527,867	9,918,206
Total Net Generation and Purchases		<u>67,439,293</u>
Sales Totals (intersystem sales)	(120,919)	
Fuel Transfer Sales (JDA & economic sales)	(3,927,743)	(4,048,662)
Line Losses and Company Use		(1,906,330)
Total NC System Sales		61,484,301

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Fuel Costs (\$)
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 4

Resource Type	Costs \$	
	Dec'20-Nov'21	
Nuclear	\$	182,308,964
Adjust for Higher Nuclear Capacity Factor		2,134,964
Adjusted Nuclear		<u>184,443,928</u>
Coal		253,383,902
Adjust for Higher Nuclear Capacity Factor		(10,462,237)
Adjusted Coal Total		<u>242,921,665</u>
Reagent and By-Product Costs		20,467,213
Gas CT and CC Total		490,311,290
Total Hydro		-
Utility Owned Solar Generation		-
Total Generation Costs		<u>938,144,096</u>
Purchases for REPS Compliance Energy	\$	131,543,318
Purchases for REPS Compliance Capacity		26,962,441
Purchases from Qualifying Facilities Energy		191,949,817
Purchases from Qualifying Facilities Capacity		39,344,300
Purchases from Dispatchable Units Energy		43,444,341
Emergency & DSM Purchases		1,321,830
Allocated Economic Purchases		6,460,492
Joint Dispatch Fuel Transfer Purchases		23,513,124
Joint Dispatch Savings		(6,373,541)
Total Net Generation and Purchases		<u>458,166,122</u>
Sales Totals (intersystem sales)	\$	(3,019,742)
Fuel Transfer Sales (JDA & economic sales)		(79,730,585)
Total System Fuel and Related Expenses	\$	<u>1,313,559,891</u>

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC

Harrington Workpaper 5

North Carolina Annual Fuel and Fuel Related Expense

Reagents (\$)

Billing Period December 1, 2020 - November 30, 2021

Docket No. E-2, Sub 1250

Month	Year	Ammonia/ Urea	Lime, Hydrated Lime & Limestone	Limestone Off-System Sales	Magnesium Hydroxide	Calcium Carbonate	Total NC System Reagent Cost	Gypsum (Gain)/Loss	Ash (Gain)/Loss	Total NC System Reagent Cost and ByProduct (Gain)/Loss
December	2020	\$ 349,864	\$ 814,335	\$ (10,778)	\$ 362,270	\$ 180,399	\$ 1,696,089	\$ (137,395)	\$ (9,473)	\$ 1,549,221
January	2021	530,045	1,243,582	(58,470)	531,324	271,310	2,517,790	(184,985)	(34,250)	2,298,556
February	2021	486,647	1,106,364	(18,442)	484,868	248,097	2,307,533	8,237,244	(31,693)	10,513,085
March	2021	225,462	533,786	(15,143)	271,583	112,582	1,128,270	(78,870)	(15,924)	1,033,476
April	2021	50,715	117,977	(4,266)	73,946	24,453	262,825	(22,709)	(6,260)	233,857
May	2021	40,061	115,602	(3,723)	55,533	21,867	229,340	(13,722)	(4,933)	210,685
June	2021	131,603	348,989	(7,158)	166,761	72,573	712,769	(42,483)	(10,334)	659,951
July	2021	299,623	776,057	(6,315)	342,645	162,584	1,574,594	(100,921)	(20,696)	1,452,978
August	2021	283,588	773,994	(11,476)	328,284	153,998	1,528,389	(99,490)	(19,355)	1,409,543
September	2021	130,049	360,338	(9,509)	176,383	67,194	724,455	(49,366)	(10,631)	664,458
October	2021	26,849	86,556	-	35,197	14,523	163,125	(8,631)	(4,178)	150,316
November	2021	51,205	165,532	(2,666)	69,982	29,089	313,142	(16,744)	(5,309)	291,090
12ME Nov	2021	\$ 2,605,708	\$ 6,443,112	\$ (147,945)	\$ 2,898,776	\$ 1,358,671	\$ 13,158,322	\$ 7,481,928	\$ (173,037)	\$ 20,467,213

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Fuel Impacts
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 6

		Positive numbers represent expense, Negative numbers represent revenues							
Month	Year	Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment	
		DEP	DEC	DEP	DEC	DEP	DEC	DEP	DEC
December	2020	\$ 257,862	\$ 370,766	\$ (89,681)	\$ (166,045)	\$ 4,118,328	\$ (4,118,328)	\$ 1,146,573	\$ (1,146,573)
January	2021	1,176,285	1,661,806	(1,591,816)	(2,350,168)	(2,389,493)	2,389,493	(234,351)	234,351
February	2021	380,540	558,194	(720,710)	(862,253)	(1,617,525)	1,617,525	(12,984)	12,984
March	2021	219,150	325,045	(272,340)	(535,713)	1,780,167	(1,780,167)	1,032,313	(1,032,313)
April	2021	541,903	816,862	(57,018)	(8,586)	(4,758,982)	4,758,982	(754,326)	754,326
May	2021	352,445	508,572	(178,053)	(99,829)	(1,436,148)	1,436,148	286,212	(286,212)
June	2021	442,608	604,720	(115,855)	(139,218)	(5,809,342)	5,809,342	(609,887)	609,887
July	2021	674,261	936,992	(273,546)	(232,353)	(7,206,634)	7,206,634	(1,780,127)	1,780,127
August	2021	596,490	859,410	(148,886)	(80,333)	(7,653,022)	7,653,022	(906,517)	906,517
September	2021	828,916	1,219,925	(129,011)	(84,868)	(6,213,974)	6,213,974	(824,741)	824,741
October	2021	644,344	943,717	(15,058)	(10,720)	(8,113,755)	8,113,755	(1,591,215)	1,591,215
November	2021	345,687	513,412	(101,916)	(91,624)	(13,223,193)	13,223,193	(2,124,492)	2,124,492
Total		\$ 6,460,492		\$ (3,693,889)		\$ (52,523,572)		\$ (6,373,541)	

Note: Totals may not sum due to rounding

		Fuel Transfer Payments	
		Purchases	Sales
December	2020	\$ 6,112,000	\$ 1,993,672
January	2021	2,576,329	4,965,823
February	2021	2,356,836	3,974,361
March	2021	3,988,416	2,208,250
April	2021	1,814,652	6,573,634
May	2021	2,577,595	4,013,743
June	2021	1,250,590	7,059,932
July	2021	919,940	8,126,574
August	2021	530,502	8,183,524
September	2021	574,090	6,788,064
October	2021	728,496	8,842,251
November	2021	83,677	13,306,869
		\$ 23,513,124	\$ 76,036,696
			\$ (52,523,572)

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Payments
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 7

Month	Year	MWh Transfer Projection		MWh Purchase Allocation Delta		Adjusted MWh Transfer		Fossil Gen Cost \$/MWh		Pre-Net Payments \$		Actual Payments \$	
		DEP to DEC	DEC to DEP	DEP	DEC	DEP to DEC	DEC to DEP	DEP	DEC	DEP to DEC	DEC to DEP	DEP to DEC	DEC to DEP
December	2020	95,054	376,196	(4,644)	4,644	95,054	380,839	\$ 20.97	\$ 16.05	\$ 6,112,000	\$ 1,993,672	\$ 4,118,328	\$ -
January	2021	233,291	114,318	(15,219)	15,219	233,291	129,537	\$ 21.29	\$ 19.89	2,576,329	4,965,823	-	2,389,493
February	2021	190,075	109,221	(11,642)	11,642	190,075	120,862	\$ 20.91	\$ 19.50	2,356,836	3,974,361	-	1,617,525
March	2021	115,013	311,791	(6,253)	6,253	115,013	318,043	\$ 19.20	\$ 12.54	3,988,416	2,208,250	1,780,167	-
April	2021	337,867	92,434	(10,502)	10,502	337,867	102,936	\$ 19.46	\$ 17.63	1,814,652	6,573,634	-	4,758,982
May	2021	212,748	173,588	(11,559)	11,559	212,748	185,147	\$ 18.87	\$ 13.92	2,577,595	4,013,743	-	1,436,148
June	2021	352,999	82,716	(4,811)	4,811	352,999	87,527	\$ 20.00	\$ 14.29	1,250,590	7,059,932	-	5,809,342
July	2021	372,513	63,634	5,245	(5,245)	377,758	63,634	\$ 21.51	\$ 14.46	919,940	8,126,574	-	7,206,634
August	2021	375,537	38,155	9,330	(9,330)	384,867	38,155	\$ 21.26	\$ 13.90	530,502	8,183,524	-	7,653,022
September	2021	336,840	39,950	(1,457)	1,457	336,840	41,407	\$ 20.15	\$ 13.86	574,090	6,788,064	-	6,213,974
October	2021	464,656	53,039	485	(485)	465,142	53,039	\$ 19.01	\$ 13.74	728,496	8,842,251	-	8,113,755
November	2021	665,983	6,741	7,480	(7,480)	673,463	6,741	\$ 19.76	\$ 12.41	83,677	13,306,869	-	13,223,193
Total		3,752,576	1,461,782	(43,545)	43,545	3,775,117	1,527,867			\$ 23,513,124	\$ 76,036,696	\$ 5,898,495	\$ 58,422,067

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Projected Sales
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Revised Harrington Workpaper 8

	Projection MWhs	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC Retail			
Residential	16,171,290		16,171,290
Small General Service	1,784,993		1,784,993
Medium General Service	10,287,749		10,287,749
Large General Service	9,128,353		9,128,353
Lighting	377,978		377,978
NC Retail	37,750,364		37,750,364
SC Retail	6,692,489	43,684	6,736,173
Total Wholesale	17,041,448		17,041,448
Total Adjusted NC System Sales	61,484,301	43,684	61,527,985
NC as a percentage of total	61.40%	0.00%	61.35%
SC as a percentage of total	10.88%	100.00%	10.95%
Wholesale as a percentage of total	27.72%	0.00%	27.70%
SC Net Metering allocation adjustment			
Total Projected SC NEM MWhs	43,684		
Marginal Fuel rate per MWh for SC NEM	\$ 22.62		
Fuel Benefit to be directly assigned to SC	\$ 987,955		
System Fuel Expense	\$ 1,313,559,891	Exh 2 Sch 1 Pg 1	
Fuel benefit to be directly assigned to SC Retail	987,955		
Total Adjusted System Fuel Expense	\$ 1,314,547,846	Exh 2 Sch 1 Pg 3	

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Normalized Sales
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 9

	Test Period Sales MWhs	Weather Normalization	Customer Growth	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC Retail					
Residential	15,760,190	330,167	101,073		16,191,429
Small General Service	1,931,559	(154,700)	809		1,777,668
Medium General Service	11,028,202	(60,460)	(18,408)		10,949,334
Large General Service	8,587,442	(6,422)	3,976		8,584,996
Lighting	348,533	0	911		349,444
NC Retail	37,655,926	108,585	88,359		37,852,870
SC Retail	6,234,427	3,683	772	43,684	6,282,566
Total Wholesale	17,875,203	299,596	109,141		18,283,941
Total Adjusted NC System Sales	61,765,556	411,864	198,273	43,684	62,419,377
NC as a percentage of total	60.97%				60.64%
SC as a percentage of total	10.09%				10.07%
Wholesale as a percentage of total	28.94%				29.29%
SC Net Metering allocation adjustment					
Total Projected SC NEM MWhs	43,684				
Marginal Fuel rate per MWh for SC NEM	\$ 22.62				
Fuel Benefit to be directly assigned to SC	\$ 987,955				
System Fuel Expense	\$ 1,341,733,169	Exh 2 Sch 2 Pg 1			
Fuel benefit to be directly assigned to SC Retail	987,955				
Total Adjusted System Fuel Expense	\$ 1,342,721,124	Exh 2 Sch 2 Pg 3			

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Weather Adjustment - MWh
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Harrington Workpaper 9a

Line No.	Description	Formula	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
	<u>Residential</u>						
1	Residential		373,365	88.43	330,167	11.57	43,198
	<u>Commercial</u>						
2	Small and Medium General Service		(176,015)	87.89	(154,700)	12.11	(21,315)
	<u>Industrial</u>						
3	Large General Service		(78,438)	77.08	(60,460)	22.92	(17,978)
	<u>OPA</u>						
4	Other Public Authority (Large General Service)		<u>(6,644)</u>	96.66	<u>(6,422)</u>	3.34	<u>(222)</u>
5	Total Retail	L1+ L2+ L3 + L4	112,268		108,585		3,683
6	Wholesale		299,596				
7	Total Company	L5 + L6	<u>411,864</u>		<u>108,585</u>		<u>3,683</u>

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC

Harrington Workpaper 9b

North Carolina Annual Fuel and Fuel Related Expense

Weather Adjustment - MWh

Twelve Months Ended March 31, 2020

Docket No. E-2, Sub 1250

		Residential	Commercial	Industrial	OPA	Total Retail	Wholesale
		MWH Adjustment	MWH Adjustment	MWH Adjustment	MWH Adjustment	MWH Adjustment	MWH Adjustment
April	2019	(47,166)	-	(19,260)	-	(66,426)	-
May	2019	(92,074)	(31,596)	(55,583)	-	(179,253)	(130,288)
June	2019	(162,445)	(72,838)	(13,276)	(5,613)	(254,173)	(122,615)
July	2019	(41,116)	(14,214)	(6,989)	(1,351)	(63,670)	(35,949)
August	2019	(159,945)	2,079	997	236	(156,632)	3,596
September	2019	(51,257)	(26,965)	(8,430)	(3,053)	(89,706)	(32,160)
October	2019	(15,298)	(93,582)	(71,735)	2,686	(177,929)	(5,988)
November	2019	123,099	-	68,523	(6,142)	185,480	(27,820)
December	2019	(14,980)	-	-	-	(14,980)	(8,607)
January	2020	340,724	46,118	18,365	1,428	406,634	377,434
February	2020	368,467	14,983	8,951	5,165	397,566	98,166
March	2020	125,358	-	-	-	125,358	183,827
12ME March	2020	373,365	(176,015)	(78,438)	(6,644)	112,268	299,596

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Customer Growth Adjustment - MWh
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Harrington Workpaper 9c

Rate Schedule	Estimation Method ¹	Reference	NC Proposed MWH Adjustment	SC Proposed MWH Adjustment	Wholesale Proposed MWH Adjustment
Residential	Regression	RES	101,073	7,614	
General:					
General Service Small	Regression	SGS	809	(3,246)	
General Service Medium	Customer	MGS	(18,408)	(4,248)	
Total General			(17,600)	(7,495)	
Lighting:					
Street Lighting	Regression	SLS/SLR	963	88	
Sports Field Lighting	Regression	SFLS	(28)	(7)	
Traffic Signal Service	Regression	TSS/TFS	(24)	571	
Total Street Lighting			911	653	
Industrial:					
I - Textile	Customer	LGS	-	-	
I - Nontextile		LGS	3,976	-	
Total Industrial			3,976	-	
Total			88,359	772	109,141

Note:

¹ Two approved methods are used for estimating the growth adjustment depending on the class/schedule:

"Regression" refers to the use of Ordinary Least Squares Regression.

"Customer" refers to the use of the Customer by Customer approach.

DUKE ENERGY PROGRESS, LLC
 North Carolina Annual Fuel and Fuel Related Expense
 Projected Sales - NERC 5 year Average
 Billing Period December 1, 2020 - November 30, 2021
 Docket No. E-2, Sub 1250

Harrington Workpaper 10

	Projection MWhs	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC Retail			
Residential	16,171,290		16,171,290
Small General Service	1,784,993		1,784,993
Medium General Service	10,287,749		10,287,749
Large General Service	9,128,353		9,128,353
Lighting	377,978		377,978
NC Retail	37,750,364		37,750,364
SC Retail	6,692,489	43,684	6,736,173
Total Wholesale	17,041,448		17,041,448
Total Adjusted NC System Sales	61,484,301	43,684	61,527,985
NC as a percentage of total	61.40%	0.00%	61.35%
SC as a percentage of total	10.88%	100.00%	10.95%
Wholesale as a percentage of total	27.72%	0.00%	27.70%
SC Net Metering allocation adjustment			
Total Projected SC NEM MWhs	43,684		
Marginal Fuel rate per MWh for SC NEM	\$ 22.62		
Fuel Benefit to be directly assigned to SC	\$ 987,955		
System Fuel Expense	\$ 1,352,745,292	Exh 2 Sch 3 Pg 1	
Fuel benefit to be directly assigned to SC Retail	987,955		
Total Adjusted System Fuel Expense	\$ 1,353,733,247	Exh 2 Sch 3 Pg 3	

Generator Step Up Loss % **0.2598%**

	kWh @ Meter	E-2 Allocation	kWh @ Prod Out.	E-1 Allocation	Losses	Cost of Service Data Summarized					
						kWh @ Meter	kWh @ Generator	Losses (kWh)	Loss Percent		
NC RES	15,557,072,996	24.8962%	16,083,699,023	25.0316%	526,626,027	Residential	16,014,259,505	16,599,480,986	585,221,481	3.6540%	
NC RES-TOU	457,186,509	0.7316%	472,662,834	0.7356%	15,476,325	SGS	1,958,437,616	2,029,994,808	71,557,192	3.6540%	
NC SGS	1,911,356,256	3.0588%	1,976,046,533	3.0754%	64,690,277	MGS	11,072,050,016	11,466,586,138	394,536,122	3.5630%	
NC SGS-CLR	42,422,798	0.0679%	43,858,862	0.0683%	1,436,064	LGS	8,543,045,195	8,798,314,654	255,269,459	2.9880%	
NC MGS-TOU	8,291,668,009	13.2693%	8,563,872,766	13.3283%	272,204,757	Lighting	350,436,746	363,236,983	12,800,237	3.6530%	
NC MGS	2,734,407,266	4.3759%	2,825,508,571	4.3974%	91,101,305	Total NC Retail	37,938,229,078	39,257,613,570	1,319,384,492	3.4780%	
NC SI	45,974,741	0.0736%	47,418,978	0.0738%	1,444,237						
NC LGS	1,999,602,174	3.2000%	2,057,691,470	3.2025%	58,089,296						
NC LGS-TOU	1,649,408,743	2.6396%	1,696,853,732	2.6409%	47,444,989	Total NC Retail	37,938,229,078	39,257,613,570	1,319,384,492	3.4780%	
NC LGS-RTP	4,894,034,278	7.8320%	5,020,914,781	7.8142%	126,880,503						
NC TSS	4,658,562	0.0075%	4,816,260	0.0075%	157,698	SC Retail	6,302,325,312	6,512,458,012	210,132,700	3.3340%	
NC ALS	263,810,754	0.4222%	272,741,072	0.4245%	8,930,318	12ME NEM Generation	28,276,884	29,219,635	942,751	3.3340%	
NC SLS	85,413,048	0.1367%	88,304,385	0.1374%	2,891,337	Total SC Retail	6,330,602,196	6,541,677,647	211,075,451	3.3340%	
NC SFLS	1,212,944	0.0019%	1,247,975	0.0019%	35,031						
Total NCR	37,938,229,078	60.7131%	39,155,637,242	60.9393%	1,217,408,164	All other jurisdictions	18,218,884,719	18,621,528,957	402,644,238	2.2100%	
NCWHS incl .						Total System	62,487,715,993	64,420,820,174	1,933,104,181	3.0940%	
NCEMPA	18,048,949,589	28.8840%	18,400,231,291	28.6369%	351,281,702	SC Retail + All Other	24,549,486,915	25,163,206,604	613,719,689	2.5000%	
Total NC	55,987,178,667	89.5971%	57,555,868,532	89.5763%	1,568,689,866	Line Loss Calculations for Projected					
							Fuel Costs	MWh @ Meter	MWh @ Generator	Losses (MWh)	Loss Percent
SC RES	2,041,645,412	3.2673%	2,110,757,617	3.2850%	69,112,205	Total NC Retail	37,750,364	39,110,632	1,360,268	3.6030%	
SC RET	37,532,506	0.0601%	38,803,027	0.0604%	1,270,521	Total SC Retail	6,736,173	6,968,503	232,330	3.4490%	
SC SGS	266,135,397	0.4259%	275,134,446	0.4282%	8,999,049	All other jurisdictions	17,041,448	17,426,575	385,127	2.2600%	
SC SGS-CLR	5,564,551	0.0089%	5,752,918	0.0090%	188,367	Total System	61,527,985	63,505,710	1,977,725	3.2140%	
SC MGS-TOU	1,114,320,548	1.7833%	1,150,706,004	1.7909%	36,385,456	Allocation percent - NC retail	61.35%	61.59%			
SC MGS	515,294,860	0.8246%	532,253,124	0.8284%	16,958,264						
SC SI	21,354,052	0.0342%	22,015,710	0.0343%	661,658	Line Loss Calculations for Normalized					
SC LGS	686,375,801	1.0984%	706,361,216	1.0993%	19,985,415	Test Period Sales	MWh @ Meter	MWh @ Generator	Losses (MWh)	Loss Percent	
SC LGS-TOU	294,080,086	0.4706%	301,694,491	0.4695%	7,614,405	Total NC Retail	37,852,870	39,216,832	1,363,961	3.6030%	
SC LGS-CRTL-TOU	687,515,490	1.1002%	703,467,652	1.0948%	15,952,162	Total SC Retail	6,282,566	6,499,251	216,685	3.4490%	
SC LGS-RTP	553,274,261	0.8854%	566,681,217	0.8819%	13,406,956	All other jurisdictions	18,283,941	18,697,147	413,207	2.2600%	
SC TSS	1,165,287	0.0019%	1,204,733	0.0019%	39,446	Total System	62,419,377	64,413,230	1,993,853	3.1940%	
SC ALS	61,651,870	0.0987%	63,738,862	0.0992%	2,086,992	Allocation percent - NC retail	60.64%	60.88%			
SC SLS	16,263,098	0.0260%	16,813,624	0.0262%	550,526						
SC SFLS	152,093	0.0002%	156,486	0.0002%	4,393						
Total SCR	6,302,325,312	10.0857%	6,495,541,126	10.1092%	193,215,814						
SCWHS	198,212,014	0.3172%	202,069,760	0.3145%	3,857,745						
Total SC	6,500,537,326	10.4029%	6,697,610,886	10.4237%	197,073,560						
Total System	62,487,715,993	100.0000%	64,253,479,418	100.0000%	1,765,763,426						

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Actual MWH Sales by Jurisdiction - Subject to Weather
Twelve Months Ended March 31, 2020
Docket No. E-2, Sub 1250

Harrington Workpaper 13

Line No.	Description	Reference	North Carolina	South Carolina	Retail Total Company	% NC	% SC
1	Residential	Company Records	15,826,068	2,071,132	17,897,200	88.43	11.57
2	Commercial	Company Records	12,241,712	1,687,036	13,928,748	87.89	12.11
3	Industrial	Company Records	8,117,274	2,413,270	10,530,544	77.08	22.92
4	Other Public Authority	Company Records	1,407,881	48,605	1,456,486	96.66	3.34
5	Total Retail Sales subject to weather	Sum 1 through 4	37,592,935	6,220,043	43,812,978		
6	Lighting	Company Records	62,991	14,384	77,375		
7	Total Retail Sales	Line 5 + Line 6	37,655,926	6,234,427	43,890,353		

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2019 Production Plant Allocation Factors
Docket No. E-2, Sub 1250

Revised Harrington Workpaper 14

2019 Total Production Plant	System	NC Retail	Residential	Small GS	Med GS	Lrg GS	Ltg
All - Production Plant	17,814,384	10,700,553	5,136,941	690,924	3,136,759	1,735,929	-
NC Retail % to Total System		60.07%	28.84%	3.88%	17.61%	9.74%	0.00%
Allocation of Classes to Total NC Retail		100.00%	48.01%	6.46%	29.31%	16.22%	0.00%

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Scenario Differences
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 15

Exhibit 2 Schedule 1: Line Loss

Line Losses	Exh 2 Sch 1 Pg 1 Ln 16	(1,906,330)
Generation	Exh 2 Sch 1 Pg 1 Ln 10	57,521,087
	%	-3.314%
	Multiplier	1.033141

Schedule 2: Proposed Nuclear Capacity Factor & Normalized Sales

Normalized Sales	Exh 4, Total Co., Ln 4	62,375,693
Sales Forecast	Exh 2 Sch 1 Pg 1 Ln 18	61,484,301
Difference		891,392
Gross up for losses	Difference x Multiplier	920,934
	MWh changes in Coal	920,934
	MWH changes in Losses	(29,542)

	Before Adj	Adj	Total
Total Coal MWh	7,940,674	920,934	8,861,608
Total Losses MWh	(1,906,330)	(29,542)	(1,935,872)
	6,034,345	891,392	6,925,736

	Before Adj	After Adj	Adjustment
Total Coal \$	\$ 242,921,665	\$ 271,094,943	\$ 28,173,278

Schedule 3: NERC 5 year average Capacity Factor & Projected Sales

		Nuclear-MWHs	Nuclear Costs	
Nuclear	WP 1	29,730,338	\$ 184,443,928	
Nuclear - NERC Average	WP 2	28,123,601	\$ 174,475,894	
	Adjustment	(1,606,738)	\$ (9,968,034)	
		Coal-MWH	Coal Costs	
Coal MWh	WP 3, WP4	7,940,674	\$ 242,921,665	
Adjustment from Above	Adjustment above	1,606,738	\$ 49,153,435	(Priced at the avg Coal \$/MWH)
		9,547,412	\$ 292,075,099	

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test
Billing Period December 1, 2020 - November 30, 2021
Docket No. E-2, Sub 1250

Harrington Workpaper 16

Line No.	Description	EMF (Over)/Under		Total \$
		Forecast \$	Collection \$	
1	Amount in current docket	\$ 269,804,228	\$ (9,714,001)	\$ 260,090,227
2	Amount in 2019 Filing: Docket E-2 Sub 1204	281,070,708	98,879,127	379,949,835
3	Reduction in prior year docket in excess of 2.5%	-	-	-
4	Increase/(Decrease)	\$ (11,266,480)	\$ (108,593,128)	\$ (119,859,608)
5	2.5% of 2019 NC revenue of \$3,725,835,297			93,145,882
6	Amount over 2.5%			0

	System Cost	Alloc %	NC Alloc. Forecast
WP 4 Purchases from Dispatchable Units	\$ 43,444,341	61.59%	\$ 26,757,369
WP 4 Purchases for REPS Compliance Energy	131,543,318	61.59%	81,017,530
WP 4 Purchases for REPS Compliance Capacity	26,962,441	60.07%	16,195,509
WP 4 Purchases from Qualifying Facilities Energy	191,949,817	61.59%	118,221,892
WP 4 Purchases from Qualifying Facilities Capacity	39,344,300	60.07%	23,632,911
WP 4 Allocated Economic Purchases	6,460,492	61.59%	3,979,017
Total	\$ 439,704,709		\$ 269,804,228

	System Cost	Alloc %	NC Alloc. Forecast
Prior Year Dispatchable Purchased Energy	\$ 14,160,859	61.68%	\$ 8,734,418
Prior Year Purchases for REPS Compliance Energy	168,625,939	61.68%	104,008,479
Prior Year Purchases for REPS Compliance Capacity	34,622,728	61.00%	21,120,137
Prior Year Purchases from Qualifying Facilities Energy	193,990,299	61.68%	119,653,216
Prior Year Purchases from Qualifying Facilities Capacity	39,793,114	61.00%	24,274,113
Prior Year Allocated Economic Purchases	5,318,328	61.68%	3,280,345
Prior Year Total	\$ 456,511,266		\$ 281,070,708

DUKE ENERGY PROGRESS, LLC

Harrington Workpaper 17

North Carolina Annual Fuel and Fuel Related Expense

2.5% Calculation Test - Normalized

Billing Period December 1, 2020 - November 30, 2021

Docket No. E-2, Sub 1250

Line No.	Description	EMF (Over)/Under		Total \$
		Forecast \$	Collection \$	
1	Amount in current docket	\$ 266,267,477	\$ (9,714,001)	\$ 256,553,477
2	Amount in 2019 Filing: Docket E-2 Sub 1204	277,600,013	98,879,127	376,479,140
3	Reduction in prior year docket in excess of 2.5%	-	-	-
4	Increase/(Decrease)	\$ (11,332,535)	\$ (108,593,128)	\$ (119,925,663)
5	2.5% of 2019 NC revenue of \$3,725,835,297			93,145,882
6	Amount over 2.5%			0

		System Cost	Alloc %	NC Alloc. Forecast
WP 4	Purchases from Dispatchable Units	\$ 43,444,341	60.64%	\$ 26,345,873
WP 4	Purchases for REPS Compliance	131,543,318	60.64%	79,771,578
WP 4	Purchases for REPS Compliance Capacity	26,962,441	60.07%	16,195,509
WP 4	Purchases from Qualifying Facilities Energy	191,949,817	60.64%	116,403,782
WP 4	Purchases from Qualifying Facilities Capacity	39,344,300	60.07%	23,632,911
WP 4	Allocated Economic Purchases	6,460,492	60.64%	3,917,825
	Total	\$ 439,704,709		\$ 266,267,477

		System Cost	Alloc %	NC Alloc. Forecast
Prior Year	Dispatchable Purchased Energy	\$ 14,160,859	60.77%	\$ 8,605,790
Prior Year	Purchases for REPS Compliance Energy	168,625,939	60.77%	102,476,796
Prior Year	Purchases for REPS Compliance Capacity	34,622,728	61.00%	21,120,137
Prior Year	Purchases from Qualifying Facilities Energy	193,990,299	60.77%	117,891,140
Prior Year	Purchases from Qualifying Facilities Capacity	39,793,114	61.00%	24,274,113
Prior Year	Allocated Economic Purchases	5,318,328	60.77%	3,232,037
Prior Year	Total	\$ 456,511,266		\$ 277,600,013

