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INFORMATION SHEET

PRESIDING: Finley, Beatty, Brown-Bland, Dockham, Patterson, Gray, Clodfelter

PLACE: Dobbs Building, Raleigh, North Carolina

DATE: September 19, 2017

TIME: 9:30 a.m. to 9:41 a.m.

DOCKET NO.: E-2, Sub 1146

COMPANIES: Duke Energy Progress, LLC

DESCRIPTION: Application by Duke Energy Progress, LLC, Pursuant to
G.S. 62-133.2 and Commission Rule R8-55 Regarding Fuel and Fuel-Related Cost
Adjustments for Electric Utilities

APPEARANCES

FOR DUKE ENERGY PROGRESS, LLC:

Dwight Allen, Esq.

Robert W. Kaylor, Esq.

FOR CAROLINA UTILITY CUSTOMERS ASSOCIATION (CUCA):

Robert F. Page, Esq.

FOR NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION (NCSEA):

Peter H. Ledford, Esq.

FOR CAROLINA INDUSTRIAL GROUP FOR FAIR UTILITY RATES II (CIGFUR II):

Adam Olls, Esq.

Warren Hicks, Esq.

FOR THE USING AND CONSUMING PUBLIC

Robert S. Gillam, Esq.

WITNESSES

Kendra A. Ward

Brett Phipps

Joseph A. Miller, Jr.

T. Preston Gillespie, Jr.

Kenneth D. Church

Darlene P. Peedin

Dustin R. Metz

FILED

OCT 04 2017

Clerk's Office
N.C. Utilities Commission

EXHIBITS

Duke Energy Progress, LLC's Application --/I

Ward Exhibits 1-6 I/A

Ward Workpapers 1-13A I/A

Phipps Exhibits 1-3 I/A

(Phipps Exhibit 3 filed under seal.)

Gillespie Exhibit 1 I/A

(Filed under seal.)

Church Exhibits 1-2 I/A

Ward Revised Exhibits 1-3 I/A

EMAIL COPIES ORDERED: Gillam - 1 ; Ledford - 1
CONFIDENTIAL: Ledford, Gillam

REPORTED BY: Linda Garrett

TRANSCRIBED BY: Linda Garrett

DATE TRANSCRIBED: September 30, 2017

TRANSCRIPT PAGES: 21

PREFILED PAGES: 77

NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE Sept 18, 2017
DOCKET #: E-2, Sub 1146
NAME OF ATTORNEY Dwight Allen
TITLE Attorney
FIRM NAME Allen Law Offices, PLLC
ADDRESS 1514 Glenwood Ave, Suite 200
CITY Raleigh, NC
ZIP 27608

APPEARING FOR: _____

APPLICANT ☒ COMPLAINTANT _____ INTERVENO R _____
PROTESTANT _____ RESPONDENT _____ DEFENDANT _____

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NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE Sept 19, 2017
DOCKET #: 9-2, Sub 1144/1146
NAME OF ATTORNEY Robert W. Kaylor
TITLE Attorney
FIRM NAME Law Office of Robert W. Kaylor, P.A.
ADDRESS 353 E. Six Forks Rd., Ste. 260
CITY Raleigh, NC
ZIP 27609

APPEARING FOR: Duke Energy Progress, LLC

APPLICANT ☒ COMPLAINTANT ☐ INTERVENOR ☐
PROTESTANT ☐ RESPONDENT ☐ DEFENDANT ☐

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NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE 09/19/17 DOCKET #: E-2, Sub 1146
NAME AND TITLE OF ATTORNEY Robert F. Page
FIRM NAME Crisp & Page, PLLC
ADDRESS 4010 Barrett Dr., Suite 205
CITY Raleigh ZIP 27609

APPEARING FOR: Carolina Utility Customers Association, Inc.

APPLICANT	COMPLAINANT	INTERVENER
PROTESTANT	RESPONDENT	DEFENDANT

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Signature: _____

NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE Peter Hedford
DOCKET #: E-2 Subs 1144, 1145, & 1146
NAME OF ATTORNEY Peter H. Hedford
TITLE General Counsel
FIRM NAME NC Sustainable Energy Association
ADDRESS 4800 Six Forks Road Suite 300
CITY Raleigh, NC
ZIP 27609

APPEARING FOR: NC Sustainable Energy Association

APPLICANT _____	COMPLAINANT _____	INTERVENOR <u>X</u>
PROTESTANT _____	RESPONDENT _____	DEFENDANT _____

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NORTH CAROLINA UTILITIES COMMISSION
APPEARANCE SLIP

DATE September 19, 2017
DOCKET #: E-2, Sub 1143, 1145 + 1146
NAME OF ATTORNEY Adam Olls & Warren Hicks
TITLE _____
FIRM NAME Bade & Dixon LLP
ADDRESS 434 Fayetteville Street Suite 2500
CITY Raleigh, NC
ZIP 27601

APPEARING FOR: Carolina Industrial Group for Fair Utility Rates II

APPLICANT _____	COMPLAINANT _____	INTERVENOR <input checked="" type="checkbox"/> R _____
PROTESTANT _____	RESPONDENT _____	DEFENDANT _____

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NORTH CAROLINA UTILITIES COMMISSION
PUBLIC STAFF - APPEARANCE SLIP

DATE 09/19/2017 DOCKET #: E-2, Sub 1146

PUBLIC STAFF MEMBER Robert S. Gillam

ORDER FOR TRANSCRIPT OF TESTIMONY TO BE **EMAILED** TO THE
PUBLIC STAFF - PLEASE INDICATE YOUR DIVISION AS WELL AS
YOUR EMAIL ADDRESS BELOW:

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WATER _____
COMMUNICATIONS _____
ELECTRIC _____
GAS _____
TRANSPORTATION _____
ECONOMICS _____
LEGAL bob.gillam@psncuc.nc.gov
CONSUMER SERVICES _____

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WILL NOT RECEIVE THE CONFIDENTIAL PORTIONS!!!!

All Public Staff personnel working on case.

Robert S. Gillam
Signature of Public Staff Member

5--/A

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JUN 21 2017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1146

In the Matter of)	
Application of Duke Energy Progress, LLC)	DUKE ENERGY PROGRESS
R8-55 Relating to Fuel and Fuel-Related)	LLC'S APPLICATION
Charge Adjustments for Electric Utilities)	

Duke Energy Progress, LLC ("DEP," "Company" or "Applicant"), pursuant to North Carolina General Statutes ("N.C. Gen. Stat.") § 62-133.2 and North Carolina Utilities Commission ("NCUC" or the "Commission") Rule R8-55, hereby makes this Application to adjust the fuel and fuel-related cost component of its electric rates. In support thereof, the Applicant respectfully shows the Commission the following:

1. The Applicant's general offices are located at 410 South Wilmington Street, Raleigh, North Carolina, and its mailing address is:

Duke Energy Progress, LLC
P. O. Box 1771
Raleigh, North Carolina 27602

2. The names and addresses of Applicant's attorneys are:

Robert W. Kaylor
Law Office of Robert W. Kaylor, P.A.
353 Six Forks Road, Suite 260
Raleigh, North Carolina 27609
Tel: (919) 546-5250
bkaylor@rwkaylorlaw.com

Dwight Allen
Allen Law Offices, PLLC
1514 Glenwood Ave., Suite 200
Raleigh, North Carolina 27608
Tel: (919) 838-0529
dallen@theallenlawoffices.com

Copies of all pleadings, testimony, orders, and correspondence in this proceeding should be served upon the attorneys listed above.

3. NCUC Rule R8-55 provides that the Commission shall schedule annual hearings pursuant to N.C. Gen. Stat. § 62-133.2 in order to review changes in the cost of fuel and fuel-related costs since the last general rate case for each utility generating electric power by means of fossil and/or nuclear fuel for the purpose of furnishing North Carolina retail electric service. Rule R8-55 schedules an annual cost of fuel and fuel-related costs adjustment hearing for DEP and requires that the Company use a test period of 12 months ended March 31. Therefore, the test period used in this Application for these proceedings is April 1, 2016 – March 31, 2017 (“test period”).

4. In Docket No. E-2, Sub 1107, DEP’s last fuel case, the Commission approved the following fuel and fuel-related costs factors (excluding the Experience Modification Factor (“EMF”) and regulatory fee):

Residential	1.993¢ per kWh
Small General Service	2.088¢ per kWh
Medium General Service	2.431¢ per kWh
Large General Service	2.253¢ per kWh
Lighting	0.596¢ per kWh

5. In this Application, DEP proposes fuel and fuel-related costs factors (excluding EMF and regulatory fee) of:

Residential	2.051¢ per kWh
Small General Service	1.976¢ per kWh
Medium General Service	2.251¢ per kWh
Large General Service	2.350¢ per kWh
Lighting	1.368¢ per kWh

In addition, these factors should be adjusted for the EMF by an increment/(decrement) (excluding regulatory fee) of:

Residential	0.000¢ per kWh
Small General Service	0.000¢ per kWh
Medium General Service	(0.081)¢ per kWh
Large General Service	0.000¢ per kWh
Lighting	0.000¢ per kWh

The base fuel and fuel-related costs factors should also be adjusted for the EMF interest (decrement) (excluding regulatory fee) of:

Residential	0.000¢ per kWh
Small General Service	0.000¢ per kWh
Medium General Service	(0.014)¢ per kWh
Large General Service	0.000¢ per kWh
Lighting	0.000¢ per kWh

This results in composite fuel and fuel-related costs factors (excluding regulatory fee) of:

Residential	2.051¢ per kWh
Small General Service	1.976¢ per kWh
Medium General Service	2.156¢ per kWh
Large General Service	2.350¢ per kWh
Lighting	1.368¢ per kWh

The new fuel factors should become effective for service on or after December 1, 2017.

6. The information and data required to be filed by NCUC Rule R8-55 is contained in the testimony and exhibits of Brett Phipps, Joseph A. Miller, Jr., T. Preston Gillespie, Jr., Kenneth D. Church, and the testimony, exhibits, and workpapers of Kendra A. Ward, which are being filed simultaneously with this Application and incorporated herein by reference.

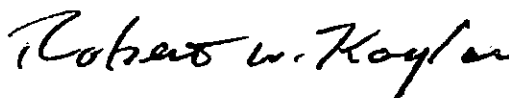
7. For comparison, in accordance with Rule R8-55(d)(1) and R8-55(e)(3), base fuel and fuel-related costs factors were also calculated based on the most recent North American Electric Reliability Corporation ("NERC") five-year national average nuclear capacity factor (88.9%) using projected sales, and based on projected nuclear capacity factors and normalized test period sales. These base fuel and fuel-related costs factors are:

	<u>NERC Average</u>	<u>Normalized Sales</u>
Residential	2.107¢ per kWh	2.045¢ per kWh
Small General Service	2.039¢ per kWh	1.960¢ per kWh
Medium General Service	2.200¢ per kWh	2.142¢ per kWh
Large General Service	2.379¢ per kWh	2.360¢ per kWh
Lighting	1.494¢ per kWh	1.381¢ per kWh

WHEREFORE, Duke Energy Progress, LLC requests that the Commission issue an order approving composite fuel and fuel-related costs factors (excluding regulatory fee) of:

Residential	2.051¢ per kWh
Small General Service	1.976¢ per kWh
Medium General Service	2.156¢ per kWh
Large General Service	2.350¢ per kWh
Lighting	1.368¢ per kWh

Respectfully submitted this 21nd day of June, 2017.



By: _____
 Robert W. Kaylor
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 Tel: (919) 546-5250
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 North Carolina State Bar No. 5484

ATTORNEYS FOR DUKE ENERGY PROGRESS, LLC

STATE OF NORTH CAROLINA)
)
COUNTY OF MECKLENBURG) VERIFICATION

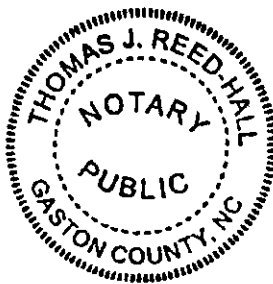
Kendra A. Ward, bring first duly sworn, deposes and says:

That she is Rates Manager for Duke Energy Progress, LLC; that she has read the foregoing Application and knows the contents thereof; that the same is true except as to the matters stated therein on information and belief; and as to those matters, she believes it to be true.

Kendra A. Ward

Kendra A. Ward

Sworn to and subscribed before
me this 21nd day of June, 2017.



Thomas J. Reed-Hall
Notary Public

My Commission expires: 7-31-17

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Summary Comparison of Fuel and Fuel Related Cost Factors
Test Period Twelve Months Ended March 31, 2017
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1145

Ward 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 1107)</u>							
1	Approved Fuel and Fuel Related Costs Factors	Input	1.993	2.088	2.431	2.253	0.596
2	EMF Increment / (Decrement)	Input	(0.137)	(0.308)	(0.383)	(0.014)	0.280
3	EMF Interest Decrement cents/kWh	Input	(0.023)	(0.051)	(0.064)	(0.002)	-
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	1.833	1.729	1.984	2.237	0.876
<u>Fuel and Fuel Related Cost Factors</u>							
5	NERC Capacity Factor of 88.9% with Projected Sales	Exh 2 Sch 3 pg 3	2.107	2.039	2.200	2.379	1.494
6	Proposed Nuclear Capacity Factor of 92.6% and Normalized Test Period Sales	Exh 2 Sch 2 pg 3	2.045	1.960	2.142	2.360	1.381
<u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.6%</u>							
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.993	1.910	2.198	2.317	1.368
8	Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.058	0.066	0.053	0.033	0.000
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	2.051	1.976	2.251	2.350	1.368
10	EMF Increment/(Decrement) cents/kWh	Exh 2 Sch 1 pg 2	-	-	(0.081)	-	-
11	EMF Interest Decrement cents/kWh	Exh 2 Sch 1 pg 2	-	-	(0.014)	-	-
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 pg 2	2.051	1.976	2.156	2.350	1.368

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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 92.6%
Twelve Months December 2017 - November 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 1
Page 1 of 3

Line No.	Unit	Reference	Generation (MWH) A	Unit Cost (cents/kWh) C/A/10=B	Fuel Cost (\$) C
1	Total Nuclear	Workpaper 3-4	28,721,189	0.7137 \$	204,976,825
2	Coal	Workpaper 3 - 4	9,784,920	3.2327	316,313,648
3	Gas - CT and CC	Workpaper 3 - 4	20,231,727	2.8710	580,845,112
4	Reagents & By Products	Workpaper 12	-		23,900,904
5	Total Fossil	Sum of Lines 2 - 4	30,016,647		921,059,663
6	Hydro	Workpaper 3	598,023		
7	Net Pumped Storage		-		
8	Total Hydro	Sum of Lines 6 - 7	598,023		
9	Utility Owned Solar Generation	Workpaper 3	282,714		
10	Total Generation	Line 1 + Line 5 + Line 8 + line 9	59,618,574		1,126,036,488
11	Purchases	Workpaper 3 - 4	8,404,277		289,435,336
12	JDA Savings Shared	Workpaper 5	-		(1,894,189)
13	Total Purchases	Sum of Lines 11 - 12	8,404,277		287,541,147
14	Total Generation and Purchases	Line 10 + Line 13	68,022,851		1,413,577,635
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(3,109,193)		(79,089,672)
16	Line losses and Company use	Line 19 - Line 15 - Line 14	(2,749,842)		-
17	System Fuel Expense for Fuel Factor	Line 14 + Line 15 + Line 16			\$ 1,334,487,963
18	Projected System MWh Sales for Fuel Factor	Workpaper 3	62,163,816		62,163,816
19	Fuel and Fuel Related Costs cents/kWh	Line 17 /Line 18 / 10			2.147

Note: Rounding differences may occur
Adjusted to include 100% ownership of all generating resources.

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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 92.6%
Twelve Months December 2017 - November 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 1
Page 2 of 3

Line No.	Description		Residential cents/KWh	General Service Small cents/KWh	General Service Medium cents/KWh	General Service Large cents/KWh	Lighting cents/KWh	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7	15,667,933	1,808,399	10,417,309	9,237,571	395,287	37,526,498
<u>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</u>								<u>Amount</u>
2	Renewable Purchased Power - Capacity	Workpaper 4						\$ 31,684,006
3	Cogeneration Purchased Power - Capacity							0
4	Total of Renewable and Cogeneration Purchased Power Capacity	Line 2 + Line 3						\$ 31,684,006
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input						59.73%
6	NC Renewable and Cogeneration Purchased Power Capacity	Line 4 * Line 5						\$ 18,925,807
7	Production Plant Allocation Factors	Input	48.271%	6.307%	29.139%	16.275%	0.009%	100.000%
8	Renewable Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 9,135,586	\$ 1,193,561	\$ 5,514,842	\$ 3,080,152	\$ 1,666	\$ 18,925,807
9	Renewable Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.058	0.066	0.053	0.033	-	0.050
<u>Summary of Total Rate by Class</u>								
Fuel and Fuel Related Costs excluding Renewable Purchased Power and								
10	Cogeneration Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.993	1.910	2.198	2.317	1.368	
11	Purchased Power - Capacity cents/kWh	Line 9	0.058	0.066	0.053	0.033	-	
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.051	1.976	2.251	2.350	1.368	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.081)	-	-	
14	EMF Interest Decrement cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.014)	-	-	
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	2.051	1.976	2.156	2.350	1.368	

Note: Rounding differences may occur

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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 1107 cents/kwh	Proposed Total Fuel Rate (Including renewables and EMF) cents /kwh
		A	B	C	D	E	F	G
		Exhibit 1, Schedule 1, page 2	Worksheet 9	Line 28 as a % of Column B	C / B	If D>0 then D If not then [C*100]/[A*1000]	Exhibit 1, Line 4	E + F = G
1	Residential	15,667,938	\$ 1,566,293,890	\$ 54,186,981	2.2%	0.238	1.833	2.051
2	Small General Service	1,808,399	\$ 204,814,740	\$ 4,470,424	2.2%	0.247	1.729	1.976
3	Medium General Service	10,417,309	\$ 822,901,121	\$ 17,961,192	2.2%	0.372	1.984	2.156
4	Large General Service	9,237,571	\$ 480,324,787	\$ 10,483,891	2.2%	0.313	2.237	2.350
5	Lighting	395,287	\$ 80,169,269	\$ 1,946,258	2.2%	0.492	0.876	1.368
6	NC Retail	37,526,498	\$ 3,163,503,807	\$ 89,048,758				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Worksheet 7	\$ 1,335,145,078					
8	System Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	\$ 91,684,006					
9	Adjusted System Other Fuel Costs	Line 7 - Line 8	\$ 1,303,461,072					
10	NC Retail Allocation % - sales at generation	Worksheet 8	60.89%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 793,677,447					
12	NC Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	\$ 18,925,807					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 812,603,254					
14	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	2.165					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	(0.024)					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	(0.004)					
18	Total Proposed Composite Fuel Rate	Sum of Lines 15-17	2.137					
Total Current Composite Fuel Rate - Docket E-2 Sub 1107:								
19	Current composite Fuel Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	2.172					
20	Current composite EMF Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.187)					
21	Current composite EMF Rate Interest cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.032)					
22	Total Current Composite Fuel Rate	Sum of Lines 19-21	1.953					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.184					
24	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 69,048,756					

Notes: Rounding differences may occur

Includes 100% ownership of all generating resources

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 92.6% and Normalized Test Period Sales
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 2
Page 1 of 3

Line No.	Unit	Reference	Generation (MWH)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 3-4	28,721,189	0.7137 \$	204,976,825
2	Coal	Calculated	9,546,228	3.2327	308,597,536
3	Gas - CT and CC	Workpaper 3-4	20,231,727	2.8710	580,845,112
4	Reagents & By Products	Workpaper 4	-		23,900,904
5	Total Fossil	Sum of Lines 2 - 4	29,777,955		913,343,551
6	Hydro	Workpaper 3	598,023		
7	Net Pumped Storage		-		
8	Total Hydro	Sum of Lines 6 - 7	598,023		
9	Utility Owned Solar Generation	Workpaper 3	282,714		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	59,379,882		1,118,320,376
11	Purchases	Workpaper 3 - 4	8,404,277		289,435,336
12	JDA Savings Shared	Workpaper 5	-		(1,894,189)
13	Total Purchases	Sum of Lines 11 - 12	8,404,277		287,541,147
14	Total Generation and Purchases	Line 10 + Line 13	67,784,159		1,405,861,523
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(3,109,193)		(79,089,672)
16	Line losses and Company use	Line 19 - Line 15 - Line 14	(2,739,318)		-
17	System Fuel Expense for Fuel Factor	Lines 14 + Line 15 + Line 16		\$	1,326,771,851
18	Normalized Test Period MWh Sales for Fuel Factor	Exhibit 4	61,935,648		61,935,648
19	Fuel and Fuel Related Costs cents/kWh	Line 17 / Line 18 / 10			2.142

Note: Rounding differences may occur

Jun 21 2017

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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 92.6% and Normalized Test Period Sales
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 2
Page 2 of 3

Line No.	Description		Residential cents/KWh	General Service Small cents/KWh	General Service Medium cents/KWh	General Service Large cents/KWh	Lighting cents/KWh	Total
1	NC Normalized Test Period MWH Sales	Exhibit 4	15,786,375	1,896,757	11,162,395	8,347,370	377,137	37,570,033
Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class								
2	Renewable Purchased Power - Capacity	Workpaper 4						<u>Amount</u> \$ 31,684,006
3	Cogeneration Purchased Power - Capacity							0
4	Total of Renewable and Cogeneration Purchased Power Capacity	Line 2 + Line 3						\$ 31,684,006
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input						59.73%
6	NC Renewable and Cogeneration Purchased Power Capacity	Line 4 * Line 5						\$ 18,925,807
7	Production Plant Allocation Factors	Input	48.271%	6.307%	29.139%	16.275%	0.009%	100.000%
8	Renewable Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 9,135,586	\$ 1,193,561	\$ 5,514,842	\$ 3,080,152	\$ 1,666	\$ 18,925,807
9	Renewable Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.058	0.063	0.049	0.037	-	0.050
Summary of Total Rate by Class								
Fuel and Fuel Related Costs excluding Renewable Purchased Power and Cogeneration								
10	Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.987	1.897	2.188	2.323	1.381	
11	Purchased Power - Capacity cents/kWh	Line 9	0.058	0.063	0.049	0.037	-	
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.045	1.960	2.237	2.360	1.381	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.081)	-	-	
14	EMF Interest Decrement cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.014)	-	-	
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 2 Page 3	2.045	1.960	2.142	2.360	1.381	

Note: Rounding differences may occur

Jun 21 2017

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Line No.	Rate Class	Normalized 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 1063 cents/kwh	Proposed Total Fuel Rate (including renewables and EMF) cents /kwh
		A	B	C	D	E	F	G
		Exhibit 2, Schedule 2, page 2	Worksheet 8	Line 25 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	15,786,375	\$ 1,566,293,890	\$ 33,482,585	2.1%	0.212	1.833	2.045
2	Small General Service	1,896,757	\$ 204,814,740	\$ 4,378,314	2.1%	0.231	1.729	1.960
3	Medium General Service	11,162,395	\$ 822,901,121	\$ 17,591,135	2.1%	0.158	1.984	2.142
4	Large General Service	8,347,370	\$ 480,324,787	\$ 10,267,879	2.1%	0.123	2.237	2.360
5	Lighting	377,137	\$ 89,169,269	\$ 1,906,167	2.1%	0.505	0.876	1.381
6	NC Retail	37,570,033	\$ 3,163,503,807	\$ 67,626,060				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Worksheet 7a	\$ 1,327,428,966					
8	System Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	31,684,006					
9	System Other Fuel Costs	Line 7 - Line 8	\$ 1,295,744,960					
10	NC Retail Allocation % - sales at generation	Worksheet 8	61.19%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 792,866,341					
12	NC Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	18,925,807					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 811,792,148					
14	Adjusted NC Normalized Period MWH Sales	Line 6, col A	37,570,033					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 /10	2.161					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	(0.024)					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	(0.004)					
18	Total Proposed Composite Fuel Rate	Sum of Lines 15-17	2.133					
Total Current Composite Fuel Rate - Docket E-2 Sub 1107:								
19	Current composite Fuel Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	2.172					
20	Current composite EMF Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.187)					
21	Current composite EMF Interest cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.032)					
22	Total Current Composite Fuel Rate	Sum of Lines 19 - 21	1.953					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.180					
24	Adjusted NC Normalized Period MWH Sales	Line 6, col A	37,570,033					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 67,626,060					

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 88.9% with Projected Sales
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 3
Page 1 of 3

Line No.	Unit	Reference	Generation (MWH)	Unit Cost (cents/KWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 2	27,571,494	0.7137	\$ 196,771,701
2	Coal	Calculated	10,934,615	3.2327	353,479,437
3	Gas - CT and CC	Workpaper 3 - 4	20,231,727	2.8710	580,845,112
4	Reagents & By Products	Workpaper 4	-		23,900,904
5	Total Fossil	Sum of Lines 2 - 4	31,166,342		958,225,452
6	Hydro	Workpaper 3	598,023		
7	Net Pumped Storage		-		
8	Total Hydro	Sum of Lines 6 - 7	598,023		
9	Utility Owned Solar Generation	Workpaper 3	282,714		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	59,618,573		1,154,997,153
11	Purchases	Workpaper 3 - 4	8,404,277		289,435,336
12	JDA Savings Shared	Workpaper 5	-		(1,894,189)
13	Total Purchases	Sum of Lines 11- 12	8,404,277		287,541,147
14	Total Generation and Purchases	Line 10 + Line 13	68,022,850		1,442,538,300
15	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(3,109,193)		(79,089,672)
16	Line losses and Company use	Line 19 - Line 15 - Line 14	(2,749,841)		-
17	System Fuel Expense for Fuel Factor	Line 14 + Line 15 + Line 16			\$ 1,363,448,628
18	System MWh Sales for Fuel Factor	Workpaper 3	62,163,816		62,163,816
19	Fuel and Fuel Related Costs cents/kWh	Line 17 / Line 18 / 10			2.193

Note: Rounding differences may occur

Jun 21 2017

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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 88.9% with Projected Sales
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 2
Schedule 3
Page 2 of 3

Line No.	Description		Residential cents/KWh	General Service Small cents/KWh	General Service Medium cents/KWh	General Service Large cents/KWh	Lighting cents/KWh	Total
1	NC Projected Billing Period MWH Sales	Workpaper 7	15,667,933	1,808,399	10,417,309	9,237,571	395,287	37,526,498
<u>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</u>								<u>Amount</u>
2	Renewable Purchased Power - Capacity	Workpaper 4						\$ 31,684,006
3	Cogeneration Purchased Power - Capacity							0
4	Total of Renewable and Cogeneration Purchased Power Capacity	Line 2 + Line 3						<u>\$ 31,684,006</u>
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input						<u>59.73%</u>
6	NC Renewable and Cogeneration Purchased Power Capacity	Line 4 * Line 5						\$ 18,925,807
7	Production Plant Allocation Factors	Input	48.271%	6.307%	29.139%	16.275%	0.009%	100.000%
8	Renewable Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 9,135,586	\$ 1,193,561	\$ 5,514,842	\$ 3,080,152	\$ 1,666	\$ 18,925,807
9	Renewable Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.058	0.066	0.053	0.033	0.000	0.050
<u>Summary of Total Rate by Class</u>								
	Fuel and Fuel Related Costs excluding Renewable Purchased Power and Cogeneration							
10	Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	2.049	1.973	2.242	2.346	1.494	
11	Purchased Power - Capacity cents/kWh	Line 9	0.058	0.066	0.053	0.033	0.000	
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	<u>2.107</u>	<u>2.039</u>	<u>2.295</u>	<u>2.379</u>	<u>1.494</u>	
13	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.081)	-	-	
14	EMF Interest Decrement cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.014)	-	-	
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	<u>2.107</u>	<u>2.039</u>	<u>2.200</u>	<u>2.379</u>	<u>1.494</u>	

Note: Rounding differences may occur

Jun 21 2017

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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 1069 cents/kwh	Proposed Total Fuel Rate (including renewables and EMF) cents /kwh
		A	B	C	D	E	F	G
		Exhibit 2, Schedule 3, page 2	Worksheet 9	Line 25 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	15,667,933	\$ 1,566,293,890	\$ 42,919,525	2.7%	0.274	1.833	2.107
2	Small General Service	1,808,399	\$ 204,814,740	\$ 5,612,326	2.7%	0.310	1.729	2.039
3	Medium General Service	10,417,309	\$ 822,901,121	\$ 22,549,105	2.7%	0.216	1.984	2.200
4	Large General Service	9,237,571	\$ 480,324,787	\$ 13,161,841	2.7%	0.142	2.237	2.379
5	Lighting	395,287	\$ 89,169,269	\$ 2,443,413	2.7%	0.618	0.676	1.494
6	NC Retail	37,526,498	\$ 3,163,503,807	\$ 86,686,210				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Worksheet 7b	\$ 1,364,105,743					
8	System Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	\$ 31,684,006					
9	System Other Fuel Costs	Line 7 - Line 8	\$ 1,332,421,737					
10	NC Retail Allocation % - sales at generation	Worksheet 8	60.89%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 811,311,596					
12	NC Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	\$ 18,925,807					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 830,237,403					
14	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	2.212					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	(0.024)					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	(0.004)					
18	Total Proposed Composite Fuel Rate	Sum of Lines 15-17	2.184					
Total Current Composite Fuel Rate - Docket E-2 Sub 1107:								
19	Current composite Fuel Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	2.172					
20	Current composite EMF Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.187)					
21	Current composite EMF Rate Interest cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.032)					
22	Total Current Composite Fuel Rate	Sum of Lines 19 - 21	1.953					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.231					
24	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 86,686,210					

Note: Rounding differences may occur

Note: Rounding differences may occur

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Proposed Composite
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Ward Exhibit 3
Page 1 of 6

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 2016 (Sub 1069)			2,600,935	\$ 10,069,491	-	\$ 10,069,491
2	May			2,623,855	2,922,867	-	2,922,867
3	June			3,150,543	(3,195,111)	-	(3,195,111)
4	July			3,546,318	(14,204,192)	-	(14,204,192)
5	August			3,921,804	(6,364,676)	-	(6,364,676)
6	September			3,608,732	951,826	-	951,826
7	October			2,862,106	(176,810)	-	(176,810)
8	November			2,581,057	2,493,779	-	2,493,779
9	December (1) (New Rates - Sub 1107)			2,873,976	(10,213,615)	-	(10,213,615)
10	January 2017			3,449,952	(2,942,213)	-	(2,942,213)
11	February			2,858,255	2,290,030	-	2,290,030
12	March			2,843,639	(15,029,118)	-	(15,029,118)
13	Total Test Period			36,921,171	\$ (33,397,742)	-	\$ (33,397,742)
14	Less: Proposed (under) collection deferral						42,483,532
15	Booked Over Recovery April 2016 to March 2017						\$ 9,085,790
16	Normalized Test Period MWh Sales	Exhibit 4					37,570,033
17	Experience Modification Increment / (Decrement) cents/KWh						(0.024)
18	Interest						\$ 1,514,298
19	EMF Interest Decrement						(0.004)

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

Jun 21 2017

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412

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 2016 (Sub 1069)	2.346	2.450	956,300	\$ 989,962		\$ 989,962
2	May	2.730	2.450	942,463	(2,639,367)		(2,639,367)
3	June	2.695	2.450	1,253,280	(3,066,524)		(3,066,524)
4	July	2.796	2.450	1,525,470	(5,283,467)		(5,283,467)
5	August	2.509	2.450	1,720,332	(1,010,695)		(1,010,695)
6	September	2.461	2.450	1,495,082	(171,336)		(171,336)
7	October	2.904	2.450	1,014,698	(4,602,060)		(4,602,060)
8	November	2.705	2.450	939,368	(2,392,665)		(2,392,665)
9	December (1) (New Rates - Sub 1107)	2.427	2.266	1,271,814	(2,616,780)		(2,616,780)
10	January 2017	1.825	2.030	1,652,408	3,385,022		3,385,022
11	February	1.867	1.993	1,227,196	1,542,586		1,542,586
12	March	2.481	1.993	1,189,431	(5,801,925)		(5,801,925)
13	Total Test Period			15,187,842	\$ (21,667,250)	\$ -	\$ (21,667,250)
14	Less: Proposed (under) collection deferral						21,667,250
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWH Sales			Exhibit 4			15,786,375
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest						\$ -
22	EMF Interest Decrement						-

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

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 2016 (Sub 1069)	2.130	2.433	127,657	\$ 387,235		\$ 387,235
2	May	2.333	2.433	133,424	133,103		133,103
3	June	2.502	2.433	162,989	(111,794)		(111,794)
4	July	2.738	2.433	188,465	(575,553)		(575,553)
5	August	2.520	2.433	206,951	(179,944)		(179,944)
6	September	2.279	2.433	195,485	301,985		301,985
7	October	2.419	2.433	147,111	21,331		21,331
8	November	2.388	2.433	128,330	58,095		58,095
9	December (1) (New Rates - Sub 1107)	2.709	2.294	137,561	(639,263)		(639,263)
10	January 2017	2.122	2.116	171,104	(11,208)		(11,208)
11	February	1.925	2.088	143,708	234,876		234,876
12	March	2.589	2.088	137,528	(688,960)		(688,960)
13	Total Test Period			1,880,312	\$ (1,070,097)	\$ -	\$ (1,070,097)
14	Less: Proposed (under) collection deferral						1,070,097
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales		Exhibit 4				1,896,757
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest					\$	-
22	EMF Interest Decrement						-

Notes:

⁽¹⁾ Adjustment included in over/(under) recovery total

Totals may not foot due to rounding.

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 2016 (Sub 1069)	1.798	2.433	830,252	\$ 5,272,601		\$ 5,272,601
2	May	1.958	2.433	874,335	4,154,226		4,154,226
3	June	2.291	2.433	981,137	1,397,531		1,397,531
4	July	2.704	2.433	1,049,724	(2,841,078)		(2,841,078)
5	August	2.489	2.433	1,153,731	(647,474)		(647,474)
6	September	2.222	2.433	1,101,799	2,323,363		2,323,363
7	October	2.079	2.433	943,065	3,339,580		3,339,580
8	November	2.063	2.433	819,586	3,031,566		3,031,566
9	December (1) (New Rates - Sub 1107)	2.744	2.432	809,499	(2,894,712)		(2,894,712)
10	January 2017	2.607	2.431	922,582	(1,618,378)		(1,618,378)
11	February	2.312	2.431	800,779	955,169		955,169
12	March	2.833	2.431	841,518	(3,386,606)		(3,386,606)
13	Total Test Period			11,128,006	\$ 9,085,789	\$ -	\$ 9,085,789
14	Less: Proposed (under) collection deferral						-
15	Booked Over Recovery April 2016 to March 2017						\$ 9,085,789
16	Normalized Test Period MWH Sales		Exhibit 4				11,162,395
17	Experience Modification Increment (Decrement) cents/KWh						(0.081)
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest					\$	1,514,298
22	EMF Interest Decrement						(0.014)

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

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 2016 (Sub 1069)	1.781	2.289	654,342	\$ 3,323,860		\$ 3,323,860
2	May	2.090	2.289	641,603	1,279,806		1,279,806
3	June	2.453	2.289	721,182	(1,180,214)		(1,180,214)
4	July	2.960	2.289	751,098	(5,037,465)		(5,037,465)
5	August	2.791	2.289	808,252	(4,057,587)		(4,057,587)
6	September	2.440	2.289	785,140	(1,187,366)		(1,187,366)
7	October	2.125	2.289	725,884	1,193,499		1,193,499
8	November	2.013	2.289	662,814	1,830,758		1,830,758
9	December (1) (New Rates - Sub 1107)	2.851	2.274	624,718	(3,899,417)		(3,899,417)
10	January 2017	2.945	2.256	672,899	(4,634,992)		(4,634,992)
11	February	2.322	2.253	655,990	(450,665)		(450,665)
12	March	3.046	2.253	644,249	(5,111,216)		(5,111,216)
13	Total Test Period			8,348,171	\$ (17,931,000)	\$ -	\$ (17,931,000)
14	Less: Proposed (under) collection deferral						17,931,000
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWH Sales		Exhibit 4				8,347,370
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.833333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest					\$	-
22	EMF Interest Decrement						-

Notes:

⁽¹⁾ Adjustment included in over/(under) recovery total

Totals may not foot due to rounding.

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 2016 (Sub 1069)	1.830	2.126	32,384	\$ 95,833		\$ 95,833
2	May	2.141	2.126	32,030	(4,901)		(4,901)
3	June	2.859	2.126	31,956	(234,110)		(234,110)
4	July	3.605	2.126	31,561	(466,629)		(466,629)
5	August	3.567	2.126	32,537	(468,976)		(468,976)
6	September	3.134	2.126	31,226	(314,820)		(314,820)
7	October	2.538	2.126	31,349	(129,160)		(129,160)
8	November	2.236	2.126	30,959	(33,975)		(33,975)
9	December (1) (New Rates - Sub 1107)	1.995	1.508	30,385	(163,444)		(163,444)
10	January 2017	0.922	0.720	30,959	(62,657)		(62,657)
11	February	0.570	0.596	30,582	8,064		8,064
12	March	0.727	0.596	30,913	(40,412)		(40,412)
13	Total Test Period			376,840	\$ (1,815,185)	\$ -	\$ (1,815,185)
14	Less: Proposed (under) collection deferral						1,815,185
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales		Exhibit 4				377,137
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.833333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest					\$	-
22	EMF Interest Decrement						-

Notes:

(1) Adjustment included over/(under) recovery total
Totals may not foot due to rounding.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Sales, Fuel Revenue, Fuel Expense and System Peak
Test Period Twelve Months Ended March 31, 2017
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 4

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	Company Records	60,973,121	35,921,171	15,187,842	1,880,312	11,128,006	8,348,171	376,840
2	Customer Growth MWH Adjustment	Workpaper 11	175,232	102,158	75,104	8,915	18,643	(800)	297
3	Weather MWH Adjustment	Workpaper 10	787,295	546,703	523,428	7,530	15,746	0	0
4	Total Adjusted MWH Sales	Sum Lines 1-3	61,935,648	37,570,033	15,786,375	1,896,757	11,162,395	8,347,370	377,137
5	Test Period Fuel and Fuel Related Revenue *		\$ 1,437,575,909	\$ 863,258,746					
6	Test Period Fuel and Fuel Related Expense *		\$ 1,488,274,653	\$ 896,656,489					
7	Test Period Unadjusted Over/(Under) Recovery	Line 5 - Line 6	\$ (50,698,744)	\$ (33,397,743)					
			Winter Coincidental Peak (CP) KW						
8	Total System Peak		12,911,246						
9	NC Retail		7,831,936						
10	NC Residential Peak		4,408,550						
11	NC Small General Service		407,079						
12	NC Medium General Service		1,999,996						
13	NC Large General Service		1,016,310						

Notes:

- Total Company Fuel and Fuel Related Revenue and Fuel and Fuel Related Expense are determined based upon the fuel and fuel related cost recovery mechanisms in each of the company's jurisdictions.

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Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Nuclear Capacity Ratings - MWs
Test Period Twelve Months Ended March 31, 2017
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Ward Exhibit 5

Unit	Rate Case Docket E-2, Sub 1069	Fuel Docket E-2, Sub 1107	Proposed Capacity Rating MW
Brunswick 1	938	938	938
Brunswick 2	932	932	932
Harris 1	928	928	928
Robinson 2	741	741	741
Total Company	3,539	3,539	3,539

1/A

**Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Monthly Fuel and Baseload Report for March 2016
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146**

Ward Exhibit 6

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Monthly Fuel Filing and Baseload Report Cover Sheet

Exhibit 6
Schedule 1

Duke Energy Progress
Summary of Monthly Fuel Report

Docket No. E-2, Sub 1132

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Line No.	Fuel Expenses:	March 2017	12 Months Ended March 2017
1	Total Fuel and Fuel-Related Costs	\$ 130,086,898	\$ 1,488,274,653
	MWH sales:		
2	Total System Sales	4,924,762	67,312,343
3	Less intersystem sales	281,366	6,339,221
4	Total sales less intersystem sales	4,643,396	60,973,122
5	Total fuel and fuel-related costs (¢/KWH) (Line 1/Line 4)	2.802	2.441
6	Current fuel & fuel-related cost component (¢/KWH) (per Schedule 4, Line 5a Total)	2.171	
	Generation Mix (MWH):		
	Fossil (By Primary Fuel Type):		
7	Coal	654,479	11,114,200
8	Oil	7,534	95,472
9	Natural Gas - Combustion Turbine	205,440	3,282,999
10	Natural Gas - Combined Cycle	1,798,274	18,695,952
11	Total Fossil	2,665,728	33,188,624
12	Nuclear	1,700,086	29,033,303
13	Hydro - Conventional	33,875	339,751
14	Solar Distributed Generation	24,799	188,088
15	Total MWH generation	4,424,488	62,749,766

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

Line 1, 12 months ended, includes an adjustment of \$2,163,096 to true up April through November 2016.

Duke Energy Progress
Details of Fuel and Fuel-Related Costs

Docket No. E-2, Sub 1132

Description	March 2017	12 Months Ended March 2017
Fuel and Fuel-Related Costs:		
Steam Generation - Account 501		
0456949 coal blending merger savings	\$ -	\$ (1,498,733)
0501016 coal procurement merger savings	-	1,149,172
0501016 transportation merger savings	-	2,872,204
0501110 coal consumed - steam	22,266,668	373,206,040
0501310 fuel oil consumed - steam	991,797	7,519,062
Total Steam Generation - Account 501	23,248,365	383,247,746
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	11,488,530	195,998,821
0518500 nuclear fuel savings	-	(3,817)
0518600 - Disposal Cost	-	-
Total Nuclear Generation - Account 518	11,488,530	195,995,003
Other Generation - Account 547		
0547000 natural gas consumed - Combustion Turbine	8,150,342	132,482,468
0547000 natural gas consumed - Combined Cycle	51,766,200	546,454,554
0547123 gas capacity merger savings	-	(407,657)
0547200 fuel oil consumed	263,837	9,713,917
Total Other Generation - Account 547	60,180,379	688,243,282
Reagents		
Catalyst Depreciation	595,847	7,186,027
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,123,618	18,320,191
0502160 reagent procurement merger savings	-	(328,214)
Total Reagents	1,719,465	25,178,004
By-products		
Net proceeds from sale of by-products	5,706,358	16,578,637
0502161 by-product merger savings	-	63,758
Total By-products	5,706,358	16,642,395
Total Fossil and Nuclear Fuel Expenses Included in Base Fuel Component	102,343,096	1,309,306,429
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (renewables)	3,091,243	36,036,316
Fuel and fuel-related component of purchased power	32,170,019	295,282,502
Total Purchased Power and Net Interchange - Account 555	35,261,262	331,318,818
Less fuel and fuel-related costs recovered through intersystem sales - Account 447	7,517,460	152,350,594
Total Fuel and Fuel-Related Costs	\$ 130,086,898	\$ 1,488,274,653

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

12 months ended 0518100 burnup of owned fuel includes an adjustment of \$2,163,096 to true up April through November 2016

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

MARCH 2017

Exhibit 6
Schedule 3, Purchases
Page 1 of 4

Purchased Power	Total	Capacity	Non-capacity			
Economic	\$	\$	mWh	Fuel \$	Fuel-related \$	Not Fuel \$
Broad River Energy, LLC.	\$ 3,702,114	\$ 1,050,012	56,855	\$ 2,403,063	\$ 249,039	-
City of Fayetteville	720,627	714,375	-	6,252	-	-
DE Carolinas - Native Load Transfer	9,973,251	-	352,735	8,641,869	1,332,969	\$ (1,587)
DE Carolinas - Native Load Transfer Benefit	664,725	-	-	664,725	-	-
DE Carolinas - Fees	(88,789)	-	-	-	(88,789)	-
Haywood EMC	29,850	29,850	-	-	-	-
NCEMC	3,466,508	2,654,445	19,076	812,063	-	-
PJM Interconnection, LLC.	(267,539)	-	1,462	21,915	(289,454)	-
Southern Company Services	4,183,906	772,044	108,992	3,011,749	400,113	-
	<u>\$ 22,384,653</u>	<u>\$ 5,220,726</u>	<u>539,120</u>	<u>\$ 15,561,636</u>	<u>\$ 1,603,878</u>	<u>\$ (1,587)</u>
Renewable Energy	\$ 18,346,502	\$ -	277,842	\$ -	\$ 18,070,645	\$ 275,857
Non-dispatchable						
DE Carolinas - Emergency	\$ 13,590	-	183	\$ 8,290	\$ 5,300	
Smurfit Stone Container Corp	16,967	-	503	15,921	1,046	
Generation Imbalance	1,462	-	43	892	570	
Qualifying Facilities	7,735,490	\$ 1,116,813	127,990	-	6,618,677	
	<u>\$ 7,767,509</u>	<u>\$ 1,116,813</u>	<u>128,719</u>	<u>\$ 25,103</u>	<u>\$ -</u>	<u>\$ 6,625,593</u>
Total Purchased Power	\$ 48,498,664	\$ 6,337,539	945,681	\$ 15,586,739	\$ 19,674,523	\$ 6,899,863

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

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

MARCH 2017

Exhibit 6
 Schedule 3, Sales
 Page 2 of 4

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
Market Based:					
NCEMC Purchase Power Agreement	\$ 1,220,272	\$ 652,500	15,274	\$ 577,278	\$ (9,506)
PJM Interconnection, LLC.	27,253	-	584	18,356	8,897
Other:					
DE Carolinas - Native Load Transfer Benefit	\$ 134,868	-	-	\$ 134,868	-
DE Carolinas - Native Load Transfer	7,064,004	-	265,506	6,786,958	\$ 277,046
Generation Imbalance	60	-	2	-	60
Total Intersystem Sales	\$ 8,446,457	\$ 652,500	281,366	\$ 7,517,460	\$ 276,497

* Sales for resale other than native load priority.

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

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

**Twelve Months Ended
MARCH 2017**

**Exhibit 6
Schedule 3, Purchases
Page 3 of 4**

Purchased Power	Total	Capacity	Non-capacity			
Economic	\$	\$	mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Broad River Energy, LLC.	\$ 85,597,727	\$ 43,691,103	888,779	\$ 35,027,454	\$ 6,939,437	\$ (60,267)
City of Fayetteville	13,977,169	12,756,100	12,698	1,085,829	135,387	(147)
DE Carolinas - Native Load Transfer	43,087,403	-	1,496,908	32,020,823	10,436,964	629,616
DE Carolinas - Native Load Transfer Benefit	1,867,055	-	-	1,867,052	-	3
DE Carolinas - Fees	217,071	-	-	-	217,071	-
Haywood EMC	353,848	353,848	-	-	-	-
NCEMC	48,501,357	35,944,858	298,596	12,556,499	-	-
PJM Interconnection, LLC.	367,824	-	23,972	391,300	(23,649)	173
Southern Company Services	49,377,629	13,039,940	1,175,995	31,673,122	4,664,567	-
	\$ 243,347,083	\$ 105,785,849	3,886,948	\$ 114,622,079	\$ 22,369,777	\$ 569,378
Renewable Energy	\$ 203,720,329	\$ -	2,906,463	\$ -	\$ 193,982,878	\$ 9,737,451
Non-dispatchable						
DE Carolinas - Emergency	\$ 61,201	-	1,240	\$ 37,333	-	\$ 23,868
Smurfit Stone Container Corp	232,755	-	7,894	214,449	-	18,306
Generation Imbalance	134,109	-	5,199	92,302	-	41,807
Qualifying Facilities	47,158,289	\$ 9,774,492	668,369	-	-	37,383,797
	\$ 47,586,353	\$ 9,774,492	682,702	\$ 344,083	\$ -	\$ 37,467,778
Total Purchased Power	\$ 494,653,765	\$ 115,560,341	7,486,113	\$ 114,966,162	\$ 216,352,655	\$ 47,774,607

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

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

Twelve Months Ended
 MARCH 2017

Exhibit 6
 Schedule 3, Sales
 Page 4 of 4

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
Utilities:					
SC Electric & Gas - Emergency	\$ 43,616	-	741	\$ 34,490	\$ 9,126
SC Public Service Authority - Emergency	11,284	-	265	7,920	3,364
Market Based:					
NCEMC	\$ 8,910	-	270	\$ 7,015	\$ 1,895
NCEMC Purchase Power Agreement	11,734,563	\$ 7,830,000	114,332	3,468,516	436,047
PJM Interconnection, LLC.	3,872,394	-	88,425	2,635,364	1,237,030
Other:					
DE Carolinas - Native Load Transfer Benefit	\$ 8,687,075	-	-	\$ 8,581,761	105,314
DE Carolinas - Native Load Transfer	145,849,004	-	6,132,275	137,542,219	8,306,785
Generation Imbalance	89,581	-	2,913	73,309	16,272
Total Intersystem Sales	\$ 170,296,427	\$ 7,830,000	6,339,221	\$ 152,350,594	\$ 10,115,833

* Sales for resale other than native load priority.

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

Duke Energy Progress
Over / (Under) Recovery of Fuel Costs
March 2017

Line No.			Residential	Small General Service	Medium General Service	Large General Service	Lighting	Total
1	1a. System Retail kWh sales	Input						4,643,396,027
	1b. System kWh Sales at generation	Input						4,811,582,554
2	2a. DERP Net Metered kWh generation	Input						160,035
	2b. Line loss percentage from Cost of Service	Input Annually						4.134%
	2c. DERP Net Metered kWh at generation	L2a * (1 + 2b)						166,651
3	Adjusted System kWh sales	L1b + L2c						4,811,729,205
4	4a. N.C. Retail kWh sales	Input	1,189,430,805	137,527,862	841,518,117	644,249,243	30,912,691	2,643,638,718
	4b. Line loss percentage from Cost of Service	Input Annually	4.702%	4.701%	4.514%	3.483%	4.700%	
	4c. NC kWh Sales at generation	4a * (1 + 4b)	1,245,357,941	143,963,047	879,504,245	668,688,444	32,365,587	2,967,900,164
	4d. NC allocation % by customer class	Calculated	41.961%	4.852%	29.634%	22.463%	1.091%	
	4e. NC retail % of actual system total	L4c NC Total / L1b Total System						61.683%
	4f. NC retail % of adjusted system total	L4c NC Total / L3 Total System						61.681%
5	Approved fuel and fuel-related rates (\$/kWh)							
	5a. Billed rates by class (\$/kWh)	L5g	1.993	2.088	2.431	2.253	0.596	2.171
	5b. Billed fuel expense	L4a * L5a / 100	\$23,705,358	\$2,671,582	\$20,457,305	\$14,514,935	\$184,240	\$61,733,418
6	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (\$/kWh)							
	Allocation changes:							
	6a. Docket E-2, Sub 1107 allocation factor	Input Annually	38.22%	4.59%	31.07%	25.82%	0.30%	100.00%
	6b. System incurred expense	Input						\$127,000,920
	6c. NC incurred expense by class	L4f * L6a * L6b	\$29,939,804	\$3,595,597	\$24,338,820	\$20,226,210	\$235,006	\$78,335,437
	6d. NC incurred base fuel rates (\$/kWh)	L6c / L4a * 100	2.51715	2.61445	2.89225	3.13850	0.78023	2.75476
7	Incurred renewable purchased power capacity rates (\$/kWh)							
	7a. NC retail production plant %	Input Annually						53.15%
	7b. Production plant allocation factors	Input Annually	48.860%	6.433%	30.750%	15.888%	0.011%	100.00%
	7c. System incurred expense	Input						\$3,091,243
	7d. NC incurred renewable capacity expense	L7a * L7b * L7c	\$914,830	\$126,752	\$600,316	\$310,125	\$221	\$1,952,244
	7e. NC incurred expense by class	L7d / L4a * 100	0.07691	0.09216	0.07134	0.04814	0.00072	0.06865
8	Total incurred rates by class (\$/kWh)	L5b + 7e	2.5941	2.7066	2.9636	3.1876	0.7610	
9	Difference in \$/kWh (Billed - incurred)	L5a - L8	(0.60196)	(0.61861)	(0.53259)	(0.93464)	(0.16495)	
10	Over / (under) recovery	L9 * L4a / 100	(\$7,149,193)	(\$850,761)	(\$4,481,841)	(\$6,021,411)	(\$30,990)	(\$18,554,196)
11	Prior period adjustments - Note 1	Input						
12	Total over / (under) recovery	L10 + L11	(\$7,149,193)	(\$850,761)	(\$4,481,841)	(\$6,021,411)	(\$30,990)	(\$18,554,196)
13	Total System Incurred Expenses							\$130,092,103
14	Less: Jurisdictional allocation adjustment	Input						\$5,264
15	Total Fuel and Fuel-related Costs per Schedule 2							\$130,086,839
17	Over / (under) recovery for each month of the current test period							

	Over / (Under) Recovery							
	Total To Date	Residential	Small General Service	Medium General Service	Large General Service	Lighting	Total Company	
April 2016	\$ 10,069,491	\$ 989,962	\$ 387,235	\$ 5,272,501	\$ 3,323,850	\$ 95,833	\$ 10,069,491	
May	\$ 12,992,358	\$ (2,639,367)	\$ 133,103	\$ 4,154,226	\$ 1,279,806	\$ (4,901)	\$ 2,922,857	
June	\$ 9,797,247	\$ (3,066,524)	\$ (111,794)	\$ 1,397,531	\$ (1,180,214)	\$ (234,110)	\$ (3,195,111)	
July	\$ (4,406,945)	\$ (5,283,467)	\$ (575,553)	\$ (2,841,078)	\$ (5,037,465)	\$ (468,029)	\$ (14,204,192)	
August	\$ (10,771,621)	\$ (1,010,695)	\$ (173,944)	\$ (847,474)	\$ (4,057,587)	\$ (468,376)	\$ (5,384,676)	
September	\$ (9,819,795)	\$ (171,335)	\$ 301,985	\$ 2,323,363	\$ (1,187,366)	\$ (314,820)	\$ 951,826	
October	\$ (9,996,605)	\$ (4,602,060)	\$ 21,331	\$ 3,339,580	\$ 1,193,499	\$ (129,180)	\$ (176,810)	
November	\$ (7,502,826)	\$ (2,392,665)	\$ 58,095	\$ 3,031,566	\$ 1,830,758	\$ (33,975)	\$ 2,493,779	
December	\$ (17,716,442)	\$ (2,616,780)	\$ (639,263)	\$ (2,894,712)	\$ (3,899,417)	\$ (163,444)	\$ (10,213,616)	
January 2017	\$ (24,305,228)	\$ 1,977,996	\$ (160,208)	\$ (2,743,559)	\$ (5,566,823)	\$ (76,192)	\$ (5,588,786)	
February	\$ (25,570,602)	\$ 183,711	\$ 71,681	\$ (149,505)	\$ (1,358,658)	\$ (2,603)	\$ (1,265,374)	
March	\$ (44,124,798)	\$ (7,149,193)	\$ (850,761)	\$ (4,481,841)	\$ (6,021,411)	\$ (30,990)	\$ (18,554,196)	
Total	\$ (25,760,418)	\$ (1,564,053)	\$ 5,760,698	\$ (20,691,018)	\$ (1,843,967)	\$ (44,124,796)		

Notes:
Detail amounts may not recalculate due to percentages presented as rounded.
Includes prior period adjustments.

**Duke Energy Progress
Fuel and Fuel Related Cost Report
March 2017**

Exhibit 6
Schedule 5
Page 2 of 2

Description	Weatherspoon CT	Lee CC	Sutton CC/CT	Robinson Nuclear	Asheville Steam	Asheville CT	Roxboro Steam	Mayo Steam
Cost of Fuel Purchased (\$)								
Coal	-	-	-	-	\$3,807,209	-	\$8,681,740	\$4,066,307
Oil	-	-	-	81,619	1,414	-	618,111	25,178
Gas - CC	-	18,910,532	13,825,841	-	-	-	-	-
Gas - CT	24	-	-	-	-	108,618	-	-
Total	\$24	\$18,910,532	\$13,825,841	\$81,619	\$3,808,623	\$108,618	\$9,299,851	\$4,301,985
Average Cost of Fuel Purchased (\$/MBTU)								
Coal	-	-	-	-	314.69	-	320.83	320.15
Oil	-	-	-	1,964.83	-	-	1,453.76	1,413.72
Gas - CC	-	408.89	470.51	-	-	-	-	-
Gas - CT	-	-	-	-	-	859.05	-	-
Weighted Average	-	408.89	470.51	1,964.83	314.80	859.05	338.35	320.71
Cost of Fuel Burned (\$)								
Coal	-	-	-	-	\$4,041,447	-	\$11,848,099	\$6,367,022
Oil - CC	-	-	-	-	-	-	-	-
Oil - Steam/CT	11,487	-	-	-	62,854	243,236	579,181	359,762
Gas - CC	-	18,910,532	13,825,841	-	-	-	-	-
Gas - CT	24	-	-	-	-	108,618	-	-
Nuclear	-	-	-	-	-	-	-	-
Total	\$11,511	\$18,910,532	\$13,825,841	-	\$4,104,301	\$351,854	\$12,427,280	\$6,716,784
Average Cost of Fuel Burned (\$/MBTU)								
Coal	-	-	-	-	288.30	-	316.55	316.35
Oil - CC	-	-	-	-	-	-	-	-
Oil - Steam/CT	1,507.48	-	-	-	1,366.09	1,366.11	1,376.38	1,356.03
Gas - CC	-	408.89	470.51	-	-	-	-	-
Gas - CT	-	-	-	-	-	859.05	-	-
Nuclear	-	-	-	-	-	-	-	-
Weighted Average	1,510.57	408.89	470.51	-	291.82	1,155.55	328.43	329.50
Average Cost of Generation (\$/kWh)								
Coal	-	-	-	-	3.23	-	3.46	3.42
Oil - CC	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	15.35	19.65	15.17	14.64
Gas - CC	-	2.88	3.30	-	-	-	-	-
Gas - CT	-	-	-	-	-	12.30	-	-
Nuclear	-	-	-	-	-	-	-	-
Weighted Average	-	2.88	3.30	-	3.27	16.59	3.58	3.56
Burned MBTU's								
Coal	-	-	-	-	1,401,828	-	3,741,746	2,012,664
Oil - CC	-	-	-	-	-	-	-	-
Oil - Steam/CT	762	-	-	-	4,601	17,805	42,080	25,793
Gas - CC	-	4,624,893	2,938,496	-	-	-	-	-
Gas - CT	-	-	-	-	-	12,644	-	-
Nuclear	-	-	-	-	-	-	-	-
Total	762	4,624,893	2,938,496	-	1,406,429	30,449	3,783,826	2,038,457
Net Generation (mWh)								
Coal	-	-	-	-	125,175	-	342,916	186,388
Oil - CC	-	-	-	-	-	-	-	-
Oil - Steam/CT	(26)	-	(41)	-	409	1,238	3,819	2,389
Gas - CC	-	656,569	419,374	-	-	-	-	-
Gas - CT	(17)	-	-	-	-	883	-	-
Nuclear	-	-	-	(4,247)	-	-	-	-
Hydro (Total System)	-	-	-	-	-	-	-	-
Solar (Total System)	-	-	-	-	-	-	-	-
Total	(43)	656,569	419,333	(4,247)	125,584	2,121	346,735	188,777
Cost of Reagents Consumed (\$)								
Ammonia	-	-	-	-	-	-	\$111,982	\$49,346
Limestone	-	-	-	-	141,689	-	283,577	239,697
Re-emission Chemical	-	-	-	-	-	-	(1,658)	-
Sorbents	-	-	-	-	-	-	85,785	85,168
Urea	-	-	-	-	98,817	-	-	-
Total	-	-	-	-	240,506	-	479,685	374,211

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.

Fuel cost information on this report does not reflect intercompany sharing of fuel-related merger savings between Duke Energy Carolinas and Duke Energy Progress.

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

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

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**Duke Energy Progress
Fuel and Fuel Related Cost Report
March 2017**

Exhibit 6
Schedule 5
Page 2 of 2

Description	Brunswick Nuclear	Blewett CT	Wayne County CT	Darlington CT	Smith Energy Complex CC/CT	Harris Nuclear	Current Month	Total 12 ME March 2017
Cost of Fuel Purchased (\$)								
Coal	-	-	-	-	-	-	\$16,557,756	\$366,395,021
Oil	19,562	-	296	-	-	(3,311)	1,010,869	18,325,26
Gas - CC	-	-	-	-	19,029,827	-	51,766,200	546,455,54
Gas - CT	-	-	398,597	39,782	7,603,321	-	8,150,342	132,482,158
Total	19,562	-	\$398,893	\$39,782	\$26,633,148	(3,311)	\$77,485,167	\$1,053,656,970
Average Cost of Fuel Purchased (¢/MBTU)								
Coal	-	-	-	-	-	-	319.23	316.43
Oil	1,807.95	-	-	-	-	-	1,475.89	1,169.71
Gas - CC	-	-	-	-	369.45	-	407.15	411.55
Gas - CT	-	-	395.82	413.96	371.31	-	375.48	358.28
Weighted Average	1,807.95	-	396.11	413.96	369.98	-	384.73	377.06
Cost of Fuel Burned (\$)								
Coal	-	-	-	-	-	-	\$22,256,568	\$373,206,039
Oil - CC	-	-	-	-	198	-	198	335,390
Oil - Steam/CT	-	8,916	-	-	-	-	1,255,436	16,897,337
Gas - CC	-	-	-	-	19,029,827	-	51,766,200	546,455,54
Gas - CT	-	-	398,597	39,782	7,603,321	-	8,150,342	132,482,158
Nuclear	6,624,782	-	-	-	-	4,863,748	11,488,530	195,998,721
Total	\$6,624,782	\$8,916	\$398,597	\$39,782	\$26,633,346	\$4,863,748	\$94,917,274	\$1,265,374,860
Average Cost of Fuel Burned (¢/MBTU)								
Coal	-	-	-	-	-	-	311.01	318.45
Oil - CC	-	-	-	-	1,650.00	-	1,650.00	1,838.54
Oil - Steam/CT	-	1,667.52	-	-	-	-	1,370.93	1,326.95
Gas - CC	-	-	-	-	369.45	-	407.15	411.55
Gas - CT	-	-	395.82	413.96	371.31	-	375.48	358.28
Nuclear	63.87	-	-	-	-	65.45	64.53	64.09
Weighted Average	63.87	1,667.52	395.82	413.96	369.98	65.45	237.67	213.00
Average Cost of Generation (¢/kWh)								
Coal	-	-	-	-	-	-	3.40	3.36
Oil - CC	-	-	-	-	19.80	-	19.80	40.73
Oil - Steam/CT	-	-	-	-	-	-	16.66	17.85
Gas - CC	-	-	-	-	2.63	-	2.88	2.92
Gas - CT	-	-	5.35	11.77	3.86	-	3.97	4.04
Nuclear	0.67	-	-	-	-	0.68	0.68	0.68
Weighted Average	0.67	-	5.35	38.25	2.90	0.68	2.15	2.02
Burned MBTU's								
Coal	-	-	-	-	-	-	7,156,238	117,193,940
Oil - CC	-	-	-	-	12	-	12	18,242
Oil - Steam/CT	-	535	-	-	-	-	91,576	1,273,417
Gas - CC	-	-	-	-	5,150,865	-	12,714,254	132,779,883
Gas - CT	-	-	100,702	9,610	2,047,679	-	2,170,635	36,977,753
Nuclear	10,373,004	-	-	-	-	7,431,203	17,804,207	305,824,044
Total	10,373,004	535	100,702	9,610	7,198,556	7,431,203	39,936,922	594,067,259
Net Generation (mWh)								
Coal	-	-	-	-	-	-	654,479	11,114,200
Oil - CC	-	-	-	-	1	-	1	823
Oil - Steam/CT	-	(20)	-	(234)	-	-	7,533	94,649
Gas - CC	-	-	-	-	722,331	-	1,798,274	18,695,952
Gas - CT	-	-	7,447	338	196,789	-	205,440	3,282,999
Nuclear	986,692	-	-	-	-	717,841	1,700,086	29,033,303
Hydro (Total System)	-	-	-	-	-	-	33,875	339,751
Solar (Total System)	-	-	-	-	-	-	24,799	188,088
Total	986,692	(20)	7,447	104	919,121	717,841	4,424,488	62,749,766
Cost of Reagents Consumed (\$)								
Ammonia	-	-	-	-	\$27,558	-	\$188,886	\$3,096,440
Limestone	-	-	-	-	-	-	664,963	10,634,944
Re-emission Chemical	-	-	-	-	-	-	(1,658)	115,510
Sorbents	-	-	-	-	-	-	170,953	3,561,655
Urea	-	-	-	-	-	-	98,817	1,027,152
Total	-	-	-	-	27,558	-	1,121,980	18,435,700

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Duke Energy Progress
Fuel & Fuel-related Consumption and Inventory Report
March 2017

Exhibit 6
Schedule 6
Page 1 of 3

Description	Weatherspoon	Lea	Sutton	Robinson	Asheville
Coal Data:					
Beginning balance	-	-	-	-	144,698
Tons received during period	-	-	-	-	48,486
Inventory adjustments	-	-	-	-	-
Tons burned during period	-	-	-	-	56,145
Ending balance	-	-	-	-	137,039
MBTUs per ton burned	-	-	-	-	24.97
Cost of ending inventory (\$/ton)	-	-	-	-	71.98
Oil Data:					
Beginning balance	661,306	-	3,164,645	78,040	2,998,341
Gallons received during period	-	-	-	30,102	-
Miscellaneous use and adjustments	(7)	-	-	-	(3,826)
Gallons burned during period	5,444	-	-	30,102	162,970
Ending balance	655,855	-	3,164,645	78,040	2,831,545
Cost of ending inventory (\$/gal)	2.11	-	2.80	2.74	1.88
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	-	4,449,913	2,855,342	-	12,239
MCF burned during period	-	4,449,913	2,855,342	-	12,239
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	-	-	-	-	12,218
Tons received during period	-	-	-	-	1,125
Inventory adjustments	-	-	-	-	-
Tons consumed during period	-	-	-	-	3,158
Ending balance	-	-	-	-	10,185
Cost of ending inventory (\$/ton)	-	-	-	-	42.77

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.

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Duke Energy Progress
Fuel & Fuel-related Consumption and Inventory Report
March 2017

Exhibit 6
Schedule 6
Page 2 of 3

<u>Description</u>	<u>Roxboro</u>	<u>Mayo</u>	<u>Brunswick</u>	<u>Blewett</u>	<u>Wayne County</u>
Coal Data:					
Beginning balance	1,323,885	539,325	-	-	-
Tons received during period	106,377	50,441	-	-	-
Inventory adjustments	-	-	-	-	-
Tons burned during period	145,361	78,928	-	-	-
Ending balance	1,284,901	510,838	-	-	-
MBTUs per ton burned	25.74	25.50	-	-	-
Cost of ending inventory (\$/ton)	81.48	80.67	-	-	-
Oil Data:					
Beginning balance	481,996	287,722	171,953	800,912	11,982,942
Gallons received during period	308,104	150,276	7,837	-	-
Miscellaneous use and adjustments	(7,517)	(4,229)	-	-	-
Gallons burned during period	305,084	187,298	-	3,806	-
Ending balance	477,499	246,471	179,790	797,106	11,982,942
Cost of ending inventory (\$/gal)	1.90	1.87	2.74	2.34	2.41
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	-	-	-	-	96,211
MCF burned during period	-	-	-	-	96,211
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	107,921	19,835	-	-	-
Tons received during period	(3,856)	4,097	-	-	-
Inventory adjustments	-	-	-	-	-
Tons consumed during period	7,581	6,103	-	-	-
Ending balance	96,484	17,829	-	-	-
Cost of ending inventory (\$/ton)	35.46	36.45	-	-	-

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Duke Energy Progress
Fuel & Fuel-related Consumption and Inventory Report
March 2017

Exhibit 6
Schedule 6
Page 3 of 3

Description	Darlington	Smith Energy Complex	Harris	Current Month	Total 12 ME March 2017
Coal Data:					
Beginning balance	-	-	-	2,007,908	2,107,514
Tons received during period	-	-	-	205,304	4,440,772
Inventory adjustments	-	-	-	-	36,131
Tons burned during period	-	-	-	280,434	4,651,639
Ending balance	-	-	-	1,932,778	1,932,778
MBTUs per ton burned	-	-	-	25.52	25.19
Cost of ending inventory (\$/ton)	-	-	-	80.60	80.60
Oil Data:					
Beginning balance	10,034,417	8,141,688	297,499	39,101,461	37,143,136
Gallons received during period	-	-	-	496,319	11,350,512
Miscellaneous use and adjustments	-	-	-	(15,579)	(277,187)
Gallons burned during period	-	85	-	694,789	9,329,049
Ending balance	10,034,417	8,141,603	297,499	38,887,412	38,887,412
Cost of ending inventory (\$/gal)	2.36	2.32	2.74	2.36	2.36
Gas Data:					
Beginning balance	-	-	-	-	-
MCF received during period	9,277	6,992,365	-	14,415,347	164,405,110
MCF burned during period	9,277	6,992,365	-	14,415,347	164,405,110
Ending balance	-	-	-	-	-
Limestone/Lime Data:					
Beginning balance	-	-	-	139,974	155,043
Tons received during period	-	-	-	1,366	275,336
Inventory adjustments	-	-	-	-	(10,345)
Tons consumed during period	-	-	-	16,842	295,536
Ending balance	-	-	-	124,498	124,498
Cost of ending inventory (\$/ton)	-	-	-	36.20	36.20

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**DUKE ENERGY PROGRESS
ANALYSIS OF COAL PURCHASED
MARCH 2017**

STATION	TYPE	QUANTITY OF TONS DELIVERED	DELIVERED COST	DELIVERED COST PER TON
ASHEVILLE	SPOT	1,739	\$ 151,084	86.90
	CONTRACT	46,747	3,550,505	75.95
	ADJUSTMENTS	-	105,620	-
	TOTAL	48,486	3,807,209	78.52
MAYO	SPOT	-	-	-
	CONTRACT	50,441	3,943,757	78.19
	ADJUSTMENTS	-	125,050	-
	TOTAL	50,441	4,068,807	80.67
ROXBORO	SPOT	11,657	831,567	71.33
	CONTRACT	94,720	7,224,703	76.27
	ADJUSTMENTS	-	625,470	-
	TOTAL	106,377	8,681,739	81.61
ALL PLANTS	SPOT	13,396	982,651	73.35
	CONTRACT	191,908	14,718,964	76.70
	ADJUSTMENTS	-	856,140	-
	TOTAL	205,304	\$ 16,557,756	\$ 80.65

Exhibit 6
Schedule 8

**DUKE ENERGY PROGRESS
ANALYSIS OF COAL QUALITY RECEIVED
MARCH 2017**

STATION	PERCENT MOISTURE	PERCENT ASH	HEAT VALUE	PERCENT SULFUR
ASHEVILLE	6.27	10.46	12,476	1.63
MAYO	7.33	7.95	12,598	1.56
ROXBORO	6.77	8.46	12,719	2.13

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**DUKE ENERGY PROGRESS
ANALYSIS OF OIL PURCHASED
MARCH 2017**

	BRUNSWICK	MAYO	ROBINSON	ROXBORO
VENDOR	Selma Tank Farm	Greensboro Tank Farm and Selma Tank Farm	Selma Tank Farm	Greensboro Tank Farm and Selma Tank Farm
SPOT/CONTRACT	Contract	Contract	Contract	Contract
SULFUR CONTENT %	0	0	0	0
GALLONS RECEIVED	7,837	150,276	30,102	308,104
TOTAL DELIVERED COST	\$ 19,562	\$ 293,178	\$ 81,619	\$ 618,111
DELIVERED COST/GALLON	\$ 2.50	\$ 1.95	\$ 2.71	\$ 2.01
BTU/GALLON	138,000	138,000	138,000	138,000

Note:

Price adjustments of \$1,414, \$(3,311) and \$296 for the Asheville, Harris and Wayne County stations, respectively, are excluded.

Duke Energy Progress
Power Plant Performance Data
Twelve Month Summary
April, 2016 - March, 2017
Nuclear Units

Schedule 10
Page 1 of 6

<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Brunswick 1	8,216,856	938	100.00	98.52
Brunswick 2	7,576,974	932	92.81	95.51
Harris 1	7,493,245	928	92.18	90.24
Robinson 2	5,746,228	741	88.52	86.95

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**Duke Energy Progress
Power Plant Performance Data
Twelve Month Summary
April, 2016 through March, 2017
Combined Cycle Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Lee Energy Complex	1A	1,269,760	196	73.94	84.23
Lee Energy Complex	1B	1,320,063	195	77.27	90.15
Lee Energy Complex	1C	1,272,152	197	73.64	87.04
Lee Energy Complex	ST1	2,414,881	378	72.85	81.69
Lee Energy Complex	Block Total	6,276,856	967	74.12	84.80
Richmond County CC	7	942,591	172	62.56	70.99
Richmond County CC	8	925,695	170	62.07	70.45
Richmond County CC	ST4	1,076,737	169	72.67	70.94
Richmond County CC	9	1,430,808	193	84.68	91.67
Richmond County CC	10	1,442,308	193	85.36	91.60
Richmond County CC	ST5	1,921,058	249	88.13	92.26
Richmond County CC	Block Total	7,739,197	1,146	77.09	82.73
Sutton Energy Complex	1A	1,439,909	198	83.00	94.70
Sutton Energy Complex	1B	1,458,491	198	84.08	95.92
Sutton Energy Complex	ST1	1,789,393	265	77.01	95.66
Sutton Energy Complex	Block Total	4,687,793	662	80.92	95.23

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Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- 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, 2016 through March, 2017**

Intermediate Steam Units

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Mayo 1	2,060,395	735	32.01	88.58
Roxboro 2	2,553,927	672	43.40	95.29
Roxboro 3	2,346,656	694	38.61	92.22
Roxboro 4	1,928,804	703	31.30	92.37

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

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**Duke Energy Progress
Power Plant Performance Data
Twelve Month Summary
April, 2016 through March, 2017
Other Cycling Steam Units**

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Asheville 1	709,380	190	42.57	81.80
Asheville 2	591,729	190	35.51	80.14
Roxboro 1	980,791	379	29.51	96.46

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Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- 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, 2016 through March, 2017
Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Asheville CT	203,916	343	89.40
Blewett CT	-10	59	98.97
Darlington CT	113,022	808	89.66
Richmond County CT	2,417,144	837	88.91
Sutton CT	-477	67	91.58
Wayne County CT	579,050	903	91.36
Weatherspoon CT	451	143	94.57

Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

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**Duke Energy Progress
Power Plant Performance Data**

Exhibit 6
Schedule 10
Page 6 of 6

**Twelve Month Summary
April, 2016 through March, 2017
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Blewett	70,086	27.0	74.54
Marshall	5,535	4.0	33.93
Tillery	104,473	84.0	93.67
Walters	159,657	113.0	98.05

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Notes:

- Effective January 2017, a change in capacity rating methodology could impact performance trending against historical results reported prior to January 2017.
- 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 2017 - November 2018

Ward Workpaper 1
Docket No. E-2, Sub 1146

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs	7,412,751	8,001,034	7,399,204	5,908,200	28,721,189
Cost	\$ 51,154,344	\$ 57,637,077	\$ 52,900,847	\$ 43,284,557	\$ 204,976,825
\$/MWhs	\$ 6.9009	\$ 7.2037	\$ 7.1495	\$ 7.3262	

Avg. \$/MWhs \$ 7.1368
Cents per kWh 0.7137

MDC	Unit	Dec'2017 - Nov'18
Brunswick 1	MW	938
Brunswick 2	MW	932
Harris 1	MW	928
Robinson 1	MW	741
		<u>3,539</u>

Hours in Year 8,760

Generation in GWhs		
Brunswick 1	GWh	7,413
Brunswick 2	GWh	8,001
Harris 1	GWh	7,399
Robinson 1	GWh	5,908
		<u>28,721</u>

Proposed Nuclear Capacity Factor 92.6%

Note: Totals may not sum due to rounding

Jun 21 2017

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2/1/18

DUKE ENERGY PROGRESS, LLC
 North Carolina Annual Fuel and Fuel Related Expense
 NERC 5 Year Average Nuclear Capacity Factor
 Billing Period December 2017 - November 2018

Ward Workpaper 2
 Docket No. E-2, Sub 1146

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs with NERC applied	7,649,094	7,600,165	7,177,341	5,144,893	27,571,494
Hours	8,760	8,760	8,760	8,760	8,760
MDC	938	932	928	741	3,539
Capacity Factor-NERC 5yr Avg	0.9309	0.9309	0.8829	0.7926	
Cost (\$)	\$ 54,589,902	\$ 54,240,713	\$ 51,223,110	\$ 36,717,975	\$ 196,771,701
Avg. \$/MWhs					\$ 7.1368
Cents per kWh					0.7137

2016	Capacity Rating	NCF Rating	Weighted Average
Brunswick 1	938	0.9309	24.67
Brunswick 2	932	0.9309	24.52
Harris 1	928	0.8829	23.15
Robinson 1	741	0.7926	16.60
	3,539		88.94

Note: Totals may not sum due to rounding

Jun 21 2017

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
North Carolina Generation in MWhs
Billing Period December 2017 - November 2018

Ward Workpaper 3
Docket No. E-2, Sub 1146

Resource Type		Dec'17 - Nov'18
Nuclear		29,282,736
Adjust for Lower Nuclear Capacity Factor		(561,547)
Adjusted Nuclear Total		28,721,189
Coal		9,223,373
Adjust for Lower Nuclear Capacity Factor		561,547
Adjusted Coal Total		9,784,920
Gas CT and CC Total		20,231,727
Total Hydro		598,023
Utility Owned Solar Generation		282,714
Total Net Generation		59,618,574
Purchases	1,097,307	
Purchases for REPS Compliance	2,553,652	
Other QF Purchases	2,272,698	
Allocated Economic Purchases	851,699	
Joint Dispatch purchases	1,628,921	8,404,277
Total Net Generation and Purchases		68,022,851
Sales Totals (intersystem sales, JDA sales)		(3,109,193)
Line Losses		(2,749,842)
Total NC System Sales		62,163,816

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Fuel Costs (\$)
Billing Period December 2017 - November 2018

Ward Workpaper 4
Docket No. E-2, Sub 1146

Resource Type	Dec'17 - Nov'18
Nuclear	209,018,615
Adjust for Lower Nuclear Capacity Factor	(4,041,790)
Adjusted Nuclear	204,976,825
Coal	298,160,713
Adjust for Lower Nuclear Capacity Factor	18,152,935
Adjusted Coal Total	316,313,648
Reagent and By-Product Costs	23,900,904
Gas CT and CC Total	580,845,112
Total Hydro	-
Utility Owned Solar Generation	-
Total Generation Costs	1,126,036,488
Purchases	41,519,620
Purchases for REPS Compliance	154,215,192
Purchases for REPS Compliance Capacity	31,684,006
Other QF Purchases	0
Allocated Economic Purchases	19,368,483
Fuel Transfer Purchases	42,648,036
Joint Dispatch savings	(1,894,189)
Total Purchase Costs	287,541,147
Sales Totals (intersystem sales)	(9,531,312)
Fuel Transfer Sales	(69,558,360)
Total Sales Costs	(79,089,672)
Total Fuel and Related Expenses	1,334,487,963

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Fuel Impacts
Billing Period December 2017 - November 2018

Ward Workpaper 5
Docket No. E-2, Sub 1146

Date	Positive numbers represent costs to Rate Payers, Negative numbers represent removal of costs to ratepayers															
	Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment		Gas Savings Payment		Coal Savings Payment		Nuclear Savings Payment			
	PEC	DEC	PEC	DEC	PEC	DEC	PEC	DEC	PEC	DEC	PEC	DEC	PEC	DEC	PEC	DEC
12/1/2017	\$ 1,109,225	\$ 1,678,893	\$ (493,239)	\$ (406,162)	\$ (2,830,885)	\$ 2,830,885	\$ (19,548)	\$ 19,548	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1/1/2018	\$ 760,406	\$ 1,104,897	\$ (1,897,748)	\$ (3,020,405)	\$ 9,103,540	\$ (9,103,540)	\$ 1,531,768	\$ (1,531,768)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2/1/2018	\$ 496,751	\$ 742,439	\$ (1,299,623)	\$ (1,591,586)	\$ (2,003,366)	\$ 2,003,366	\$ 4,980	\$ (4,980)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3/1/2018	\$ 835,373	\$ 1,279,397	\$ (333,528)	\$ (608,762)	\$ 3,328,107	\$ (3,328,107)	\$ 708,999	\$ (708,999)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4/1/2018	\$ 1,176,205	\$ 1,822,564	\$ (36,016)	\$ (31,481)	\$ 6,622,371	\$ (6,622,371)	\$ 1,076,194	\$ (1,076,194)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5/1/2018	\$ 1,014,068	\$ 1,574,048	\$ (119,054)	\$ (192,612)	\$ (2,551,175)	\$ 2,551,175	\$ (141,595)	\$ 141,595	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6/1/2018	\$ 1,026,960	\$ 1,571,642	\$ (230,569)	\$ (272,981)	\$ (11,281,955)	\$ 11,281,955	\$ (1,338,942)	\$ 1,338,942	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7/1/2018	\$ 1,339,179	\$ 1,949,040	\$ (465,266)	\$ (659,615)	\$ (7,672,523)	\$ 7,672,523	\$ (1,284,515)	\$ 1,284,515	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8/1/2018	\$ 1,965,963	\$ 2,897,823	\$ (311,680)	\$ (381,012)	\$ (8,821,679)	\$ 8,821,679	\$ (1,578,825)	\$ 1,578,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9/1/2018	\$ 4,123,980	\$ 6,097,448	\$ (62,484)	\$ (81,701)	\$ 291,485	\$ (291,485)	\$ 163,989	\$ (163,989)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10/1/2018	\$ 3,289,931	\$ 5,059,523	\$ (12,033)	\$ (13,146)	\$ (2,871,211)	\$ 2,871,211	\$ (242,562)	\$ 242,562	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11/1/2018	\$ 2,230,442	\$ 3,353,752	\$ (181,830)	\$ (154,148)	\$ (8,223,035)	\$ 8,223,035	\$ (774,133)	\$ 774,133	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 19,368,483		\$ (5,443,071)		\$ (26,910,324)		\$ (1,894,189)		\$ -		\$ -		\$ -		\$ -	

		Fuel Transfer Payments	
		Purchases	Sales
12/1/2017	\$	3,931,151	\$ 6,762,036
1/1/2018	\$	10,733,785	\$ 1,630,245
2/1/2018	\$	3,091,397	\$ 5,094,763
3/1/2018	\$	5,848,124	\$ 2,520,017
4/1/2018	\$	8,226,302	\$ 1,603,931
5/1/2018	\$	2,000,149	\$ 4,551,323
6/1/2018	\$	210,016	\$ 11,491,970
7/1/2018	\$	893,064	\$ 8,565,587
8/1/2018	\$	564,101	\$ 9,385,780
9/1/2018	\$	3,399,372	\$ 3,107,887
10/1/2018	\$	3,076,143	\$ 5,947,354
11/1/2018	\$	674,433	\$ 8,897,468
	\$	42,648,036	\$ 69,558,360
			\$ 26,910,324

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Payments
Billing Period December 2017 - November 2018

Date	Transfer Projection		Purchase Allocation Delta		Adjusted Transfer		Fossil Gen Cost		Pre-Net Payments		Actual Payments	
	PEC to DEC	DEC to PEC	PEC	DEC	PEC to DEC	DEC to PEC	PEC	DEC	PEC to DEC	DEC to PEC	PEC to DEC	DEC to PEC
12/1/2017	247,152	137,469	(10,441)	10,441	247,152	147,910	\$ 27.36	\$ 26.58	\$ 3,931,151	\$ 6,762,036	\$ -	\$ 2,830,885
1/1/2018	55,722	382,331	(6,677)	6,677	55,722	389,008	\$ 29.26	\$ 27.59	\$ 10,733,785	\$ 1,630,245	\$ 9,103,540	\$ -
2/1/2018	185,608	111,924	(2,147)	2,147	185,608	114,070	\$ 27.45	\$ 27.10	\$ 3,091,397	\$ 5,094,763	\$ -	\$ 2,003,366
3/1/2018	99,239	207,088	(10,708)	10,708	99,239	217,796	\$ 25.39	\$ 26.85	\$ 5,848,124	\$ 2,520,017	\$ 3,328,107	\$ -
4/1/2018	69,221	293,408	(35,233)	35,233	69,221	328,641	\$ 23.17	\$ 25.03	\$ 8,226,302	\$ 1,603,931	\$ 6,622,371	\$ -
5/1/2018	198,235	80,671	(1,038)	1,038	198,235	81,709	\$ 22.96	\$ 24.48	\$ 2,000,149	\$ 4,551,323	\$ -	\$ 2,551,175
6/1/2018	425,134	8,312	28,028	(28,028)	453,162	8,312	\$ 25.36	\$ 25.27	\$ 210,016	\$ 11,491,970	\$ -	\$ 11,281,955
7/1/2018	305,665	34,178	20,181	(20,181)	325,846	34,178	\$ 26.29	\$ 26.13	\$ 893,064	\$ 8,565,587	\$ -	\$ 7,672,523
8/1/2018	338,633	21,545	16,953	(16,953)	355,586	21,545	\$ 26.40	\$ 26.18	\$ 564,101	\$ 9,385,780	\$ -	\$ 8,821,679
9/1/2018	131,534	111,886	(20,886)	20,886	131,534	132,771	\$ 23.63	\$ 25.60	\$ 3,399,372	\$ 3,107,887	\$ 291,485	\$ -
10/1/2018	256,072	102,325	(22,949)	22,949	256,072	125,274	\$ 23.23	\$ 24.56	\$ 3,076,143	\$ 5,947,354	\$ -	\$ 2,871,211
11/1/2018	394,250	27,477	(229)	229	394,250	27,707	\$ 22.57	\$ 24.34	\$ 674,433	\$ 8,897,468	\$ -	\$ 8,223,035
	2,706,465	1,518,614			2,771,627	1,628,921			\$ 42,648,036	\$ 69,558,360		

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 2017 - November 2018

Ward Workpaper 7
Docket No. E-2, Sub 1146

Fall 2016 Forecast

	Projection MWhs	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC			
Residential	15,667,933		15,667,933
Small General Service	1,808,399		1,808,399
Medium General Service	10,417,309		10,417,309
Large General Service	9,237,571		9,237,571
Lighting	395,287		395,287
Total	37,526,498		37,526,498
SC Retail	6,464,060	20,522	6,484,582
Total Wholesale	18,173,258		18,173,258
Total Adjusted NC System Sales	62,163,816	20,522	62,184,338
NC as a percentage of total	60.37%	0.00%	60.35%
SC as a percentage of total	10.40%	100.00%	10.43%
Wholesale as a percentage of total	29.23%	0.00%	29.22%
SC Net Metering allocation adjustment			
Total Projected SC NEM MWhs	20,522		
Marginal Fuel rate per MWh for SC NEM	\$ 32.02		
Fuel Benefit to be directly assigned to SC	\$ 657,114		
System Fuel Expense	1,334,487,963		
Fuel benefit to be directly assigned to SC Retail	\$ 657,114		
Total Adjusted System Fuel Expense	1,335,145,078		

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Normalized Sales
Billing Period December 2017 - November 2018

Ward Workpaper 7a
Docket No. E-2, Sub 1146

Fall 2016 Forecast

	Test Period Sales MWhs	Weather Normalization	Customer Growth	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC					
Residential	15,187,842	523,428	75,104		15,786,375
Small General Service	1,880,312	7,530	8,915		1,896,757
Medium General Service	11,128,006	15,745	18,643		11,162,395
Large General Service	8,348,171	0	(800)		8,347,370
Lighting	376,840	0	297		377,137
Total	36,921,171	546,703	102,158		37,570,033
SC Retail	6,252,503	65,248	(5,128)	20,522	6,333,145
Total Wholesale	17,799,446	175,343	78,202		18,052,991
Total Adjusted NC System Sales	60,973,121	787,295	175,232	20,522	61,956,170
NC as a percentage of total	60.55%				60.64%
SC as a percentage of total	10.25%				10.22%
Wholesale as a percentage of total	29.19%				29.14%
SC Net Metering allocation adjustment	20,522				
Total Projected SC NEM MWhs	\$ 32.02				
Marginal Fuel rate per MWh for SC NEM	\$ 657,114				
Fuel Benefit to be directly assigned to SC					
System Fuel Expense	\$ 1,326,771,851				
Fuel benefit to be directly assigned to SC Retail	\$ 657,114				
Total Adjusted System Fuel Expense	\$ 1,327,428,966				

Ward Exhibit 2, Schedule 2, page 1 of 3

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Projected Sales - NERC 5 year Average
Billing Period December 2017 - November 2018

Ward Workpaper 7b
Docket No. E-2, Sub 1146

Fall 2016 Forecast

	Projection MWhs	Remove impact of SC DERP Net Metered Generation	Adjusted Projected Sales (MWhs)
NC			
Residential	15,667,933		15,667,933
Small General Service	1,808,399		1,808,399
Medium General Service	10,417,309		10,417,309
Large General Service	9,237,571		9,237,571
Lighting	395,287		395,287
Total	37,526,498		37,526,498
SC Retail	6,464,060	20,522	6,484,582
Total Wholesale	18,173,258		18,173,258
Total Adjusted NC System Sales	62,163,816	20,522	62,184,338
NC as a percentage of total	60.37%	0.00%	60.35%
SC as a percentage of total	10.40%	100.00%	10.43%
Wholesale as a percentage of total	29.23%	0.00%	29.22%
SC Net Metering allocation adjustment			
Total Projected SC NEM MWhs	20,522		
Marginal Fuel rate per MWh for SC NEM	\$ 32.02		
Fuel Benefit to be directly assigned to SC	\$ 657,114		
System Fuel Expense	1,363,448,628		
Fuel benefit to be directly assigned to SC Retail	\$ 657,114		
Total Adjusted System Fuel Expense	1,364,105,743		

Ward Exhibit 2, Schedule 3, Page 1 of 3

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
NC Retail Allocation %
Energy Allocation Factors - 12 Months Ending December 31, 2016

Ward Workpaper 8
Docket No. E-2, Sub 1146

	kWh @ Meter	E-2 Allocation	kWh @ Prod Out.	E-1 Allocation
NC RES	14,955,078,703	0.241916	15,673,964,377	0.244874
NC RES-TOU	530,252,474	0.008577	555,741,535	0.008682
NC SGS	1,867,042,693	0.030202	1,956,769,122	0.030571
NC SGS-CLR	27,248,688	0.000441	28,558,523	0.000446
NC MGS-TOU	8,328,878,650	0.134730	8,709,716,316	0.136072
NC MGS	2,776,099,446	0.044907	2,906,002,340	0.045400
NC SI	53,055,810	0.000858	55,319,531	0.000864
NC LGS	1,163,676,080	0.018824	1,208,152,228	0.018875
NC LGS-TOU	1,652,031,867	0.026724	1,715,476,301	0.026801
NC LGS-RTP	5,530,306,132	0.089459	5,706,315,125	0.089150
NC TSS	5,644,587	0.000091	5,915,920	0.000092
NC ALS	287,838,376	0.004656	301,674,671	0.004713
NC SLS	94,141,077	0.001523	98,665,407	0.001541
NC SFLS	1,182,005	0.000019	1,228,214	0.000019
Total NCR	37,272,476,588	0.602927	38,923,500,611	0.608102
NCMPA	7,509,347,527	0.121473	7,622,551,599	0.119087
NCMC	7,490,870,018	0.121174	7,603,795,540	0.118794
Fayetteville	2,124,305,706	0.034363	2,156,329,801	0.033688
FEMC	521,138,575	0.008430	528,994,785	0.008264
Piedmont EMC	69,227,990	0.001120	70,271,608	0.001098
Haywood EMC	77,865,435	0.001260	79,039,263	0.001235
Tri-Towns	75,326,175	0.001218	76,461,724	0.001195
Waynesville	94,190,878	0.001524	95,610,814	0.001494
Winterville	53,170,188	0.000860	53,971,733	0.000843
Total NCWHS	10,506,094,965	0.169949	10,664,475,266	0.166611
Total NC	55,287,919,080	0.894348	57,210,527,476	0.893800
SC RES	2,056,757,035	0.033271	2,155,624,664	0.033677
SC RET	44,606,572	0.000722	46,750,795	0.000730
SC SGS	278,815,598	0.004510	292,196,484	0.004565
SC SGS-CLR	2,099,640	0.000034	2,200,569	0.000034
SC MGS-TOU	1,119,620,534	0.018111	1,170,489,224	0.018287
SC MGS	541,530,905	0.008760	566,356,207	0.008848
SC SI	14,177,976	0.000229	14,772,712	0.000231
SC LGS	687,597,989	0.011123	713,488,542	0.011147
SC LGS-TOU	258,339,688	0.004179	267,125,857	0.004173
SC LGS-CRTL-TOU	647,021,801	0.010466	665,028,290	0.010390
SC LGS-RTP	589,087,457	0.009529	604,506,079	0.009444
SC TSS	855,612	0.000014	896,741	0.000014
SC ALS	74,626,094	0.001207	78,213,346	0.001222
SC SLS	17,926,079	0.000291	18,850,664	0.000295
SC SFLS	144,007	0.000002	149,637	0.000002
Total SCR	6,333,266,987	0.102448	6,596,649,811	0.103059
SCWHS (Camden)	198,052,542	0.003204	201,038,202	0.003141
Total SC	6,531,319,529	0.105652	6,797,688,012	0.106200
Total System	61,819,238,609	1.000000	64,008,215,488	1.000000

2016 Cost of Service Data

	kWh @ Meter	kWh @ Prod Out.	Losses (kWh)	Loss Percent
Residential	15,485,331,177	16,229,705,911	744,374,734	4.81%
SGS	1,899,935,968	1,991,243,566	91,307,598	4.81%
MGS	11,158,033,906	11,671,038,187	513,004,281	4.60%
LGS	8,346,014,079	8,629,943,654	283,929,575	3.40%
Lighting	383,161,458	401,569,293	18,407,835	4.80%
Total NC Retail	37,272,476,588	38,923,500,611	1,651,024,023	4.43%
Total NC Retail	37,272,476,588	38,923,500,611	1,651,024,023	4.43%
SC Retail	6,333,266,987	6,596,649,811	263,382,824	
NEM Generation	212,484	221,707	9,223	
	6,333,479,471	6,596,871,517	263,392,047	4.16%
All other jurisdictions	18,213,282,551	16,487,843,361	274,560,810	1.51%
Total System	61,819,238,609	64,008,215,488	2,188,976,879	3.54%

Line Loss Calculations for Projected Fuel Costs

	MWh @ Meter	MWh @ Prod Out.	Losses (MWh)	Loss Percent
Total NC Retail	37,526,498	39,265,819	1,739,321	4.63%
Total SC Retail	6,484,582	6,765,960	281,378	4.34%
All other jurisdictions	18,173,259	18,451,409	278,151	1.53%
Total System	62,184,339	64,483,187	2,298,849	3.70%

Allocation percent - NC retail

60.35% 60.89%

Line Loss Calculations for Normalized Test Period Sales

	MWh @ Meter	MWh @ Prod Out.	Losses (MWh)	Loss Percent
Total NC Retail	37,570,033	39,311,372	1,741,339	4.63%
Total SC Retail	6,333,145	6,607,952	274,807	4.34%
All other jurisdictions	18,052,991	18,329,301	276,310	1.53%
Total System	61,956,170	64,248,625	2,292,455	3.70%

Allocation percent - NC retail

60.64% 61.19%

Jun 21 2017

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Revenue Class	Annual Sales (\$ per MW)	Annual EE Cost (\$ per MW)	Annual Customer Charge (\$ per MW)	Annual Rider Charge (\$ per MW)	Op-Out Credit Due to Customer (\$ per MW)	REPS Revenue Due to Customer (\$ per MW)	Annual Revenue Excluding All Rate Adjustments (\$ per MW)	Annual Impact Change (\$ per MW)	Annual Op-Out Credit (\$ per MW)	Annual Revenue (\$ per MW)	Annual Revenue Rate Change (%)
Residential	15,250,144,792	0	0	0	0	0	\$1,645,361,665	(\$1,645,361,665)	\$0	\$1,645,361,665	100.00%
	15,250,144,792	0	0	0	0	0	\$1,645,361,665	(\$1,645,361,665)	\$0	\$1,645,361,665	100.00%
	15,250,144,792	0	0	0	0	0	\$1,645,361,665	(\$1,645,361,665)	\$0	\$1,645,361,665	100.00%
	15,250,144,792	0	0	0	0	0	\$1,645,361,665	(\$1,645,361,665)	\$0	\$1,645,361,665	100.00%
Commercial	12,303,033,344	3,891,183,612	3,025,594,051	2,291,053	\$1,651,170,911	\$3,200,135	\$1,651,170,911	(\$3,200,135)	\$0	\$1,651,170,911	100.00%
	12,303,033,344	3,891,183,612	3,025,594,051	2,291,053	\$1,651,170,911	\$3,200,135	\$1,651,170,911	(\$3,200,135)	\$0	\$1,651,170,911	100.00%
	12,303,033,344	3,891,183,612	3,025,594,051	2,291,053	\$1,651,170,911	\$3,200,135	\$1,651,170,911	(\$3,200,135)	\$0	\$1,651,170,911	100.00%
	12,303,033,344	3,891,183,612	3,025,594,051	2,291,053	\$1,651,170,911	\$3,200,135	\$1,651,170,911	(\$3,200,135)	\$0	\$1,651,170,911	100.00%
Industrial	7,899,191,939	7,255,953,368	7,255,953,368	24,095	\$16,891,218	\$193,457	\$16,891,218	(\$193,457)	\$0	\$16,891,218	100.00%
	7,899,191,939	7,255,953,368	7,255,953,368	24,095	\$16,891,218	\$193,457	\$16,891,218	(\$193,457)	\$0	\$16,891,218	100.00%
	7,899,191,939	7,255,953,368	7,255,953,368	24,095	\$16,891,218	\$193,457	\$16,891,218	(\$193,457)	\$0	\$16,891,218	100.00%
	7,899,191,939	7,255,953,368	7,255,953,368	24,095	\$16,891,218	\$193,457	\$16,891,218	(\$193,457)	\$0	\$16,891,218	100.00%
Public Streets & Highways	63,729,462	0	0	0	\$11,026	\$0	\$11,026	(\$11,026)	\$0	\$11,026	100.00%
	63,729,462	0	0	0	\$11,026	\$0	\$11,026	(\$11,026)	\$0	\$11,026	100.00%
	63,729,462	0	0	0	\$11,026	\$0	\$11,026	(\$11,026)	\$0	\$11,026	100.00%
	63,729,462	0	0	0	\$11,026	\$0	\$11,026	(\$11,026)	\$0	\$11,026	100.00%
Minery	1,398,652,546	1,405,377,556	1,405,377,556	46	\$1,318,729	\$273	\$1,318,729	(\$273)	\$0	\$1,318,729	100.00%
	1,398,652,546	1,405,377,556	1,405,377,556	46	\$1,318,729	\$273	\$1,318,729	(\$273)	\$0	\$1,318,729	100.00%
	1,398,652,546	1,405,377,556	1,405,377,556	46	\$1,318,729	\$273	\$1,318,729	(\$273)	\$0	\$1,318,729	100.00%
	1,398,652,546	1,405,377,556	1,405,377,556	46	\$1,318,729	\$273	\$1,318,729	(\$273)	\$0	\$1,318,729	100.00%
MC Retail	35,920,000,865	12,551,597,558	12,551,597,558	16,532,566	\$3,200,368,108	\$3,402,216	\$3,200,368,108	(\$3,402,216)	\$0	\$3,200,368,108	100.00%
	35,920,000,865	12,551,597,558	12,551,597,558	16,532,566	\$3,200,368,108	\$3,402,216	\$3,200,368,108	(\$3,402,216)	\$0	\$3,200,368,108	100.00%
	35,920,000,865	12,551,597,558	12,551,597,558	16,532,566	\$3,200,368,108	\$3,402,216	\$3,200,368,108	(\$3,402,216)	\$0	\$3,200,368,108	100.00%
	35,920,000,865	12,551,597,558	12,551,597,558	16,532,566	\$3,200,368,108	\$3,402,216	\$3,200,368,108	(\$3,402,216)	\$0	\$3,200,368,108	100.00%
Rate Schedules (includes REPS)	14,677,357,246	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	14,677,357,246	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	14,677,357,246	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	14,677,357,246	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
Rate Class	15,107,833,144	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	15,107,833,144	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	15,107,833,144	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%
	15,107,833,144	0	0	0	\$0	\$0	\$0	\$0	\$0	\$0	100.00%

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Weather Adjustment - MWh
Twelve Months Ended March 31, 2017

Ward Workpaper 10
Docket No. E-2, Sub 1146

Residential Weather Adjustment MWh

	North Carolina				South Carolina				System Total
	R2	R3	R4	Total	R2	R3	R4	Total	
	All Electric	Water Heating	Minimum Use		All Electric	Water Heating	Minimum Use		
Apr-16	41,654	15,967	1,736	59,358	16,242	2,538	1,242	20,023	79,381
May-16	42,888	12,817	14,302	70,007	183	31	14	229	70,235
Jun-16	44,584	16,264	14,794	75,642	(6,407)	(1,080)	(1,129)	(8,616)	67,027
Jul-16	73,175	26,634	24,306	124,115	(13,746)	(4,660)	(2,292)	(20,698)	103,417
Aug-16	(58,054)	(21,118)	(19,332)	(98,504)	(18,042)	(6,170)	(2,745)	(26,957)	(125,461)
Sep-16	(107,339)	(38,943)	(35,964)	(182,246)	(19,372)	(6,474)	(3,376)	(29,223)	(211,468)
Oct-16	(65,051)	(5,463)	(21,664)	(92,177)	(3,314)	(2,413)	(1,206)	(6,933)	(99,111)
Nov-16	34,706	12,645	1,311	48,662	10,700	2,176	1,029	13,904	62,566
Dec-16	15,833	2,658	1,721	20,211	8,618	1,130	721	10,468	30,679
Jan-17	128,352	22,731	21,021	172,103	32,993	5,460	2,720	41,172	213,275
Feb-17	216,154	36,216	4,531	256,902	41,024	6,653	3,421	51,098	308,000
Mar-17	54,191	15,345	(181)	69,355	18,744	1,099	1,910	21,754	91,109
Total	421,093	95,753	6,582	523,428	67,623	(1,710)	309	66,222	589,650
Commercial									22,301
Wholesale									175,343
Total NC System									787,295

Commercial Weather Adjustment MWh

	NC	SC	System
Apr-16	8,547	3,726	12,273
May-16	22,425	(1,628)	20,796
Jun-16	31,652	(4,398)	27,254
Jul-16	41,938	(7,019)	34,919
Aug-16	(15,536)	(5,886)	(21,421)
Sep-16	(29,468)	(9,903)	(39,372)
Oct-16	(41,296)	(8,513)	(49,809)
Nov-16	(4,250)	(1,515)	(5,765)
Dec-16	1,530	2,546	4,076
Jan-17	35,372	11,075	46,447
Feb-17	44,008	14,172	58,180
Mar-17	(71,646)	6,370	(65,277)
Total	23,275	(974)	22,301

Wholesale Weather Adjustment

	MWh
Apr-16	(72,414)
May-16	54,046
Jun-16	66,154
Jul-16	49,033
Aug-16	(170,875)
Sep-16	(203,473)
Oct-16	26,961
Nov-16	163,807
Dec-16	114,840
Jan-17	120,199
Feb-17	24,470
Mar-17	2,594
Total	175,343

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Customer Growth Adjustment - MWh
Twelve Months Ended March 31, 2017

Ward Workpaper 11
Docket No. E-2, Sub 1146

Rate Schedule	Reference	NC Proposed KWH ¹ Adjustment	SC Proposed KWH Adjustment	Wholesale Proposed KWH Adjustment
Residential	RES	75,104,150	615,058	
General:				
General Service Small	SGS	8,915,017	(127,993)	
General Service Medium	MGS	18,642,770	(5,980,197)	
Total General		27,557,787	(6,108,190)	
Lighting:				
Street Lighting	SLS/SLR	554,334	369,541	
Sports Field Lighting	SFLS	19,960	(16,137)	
Traffic Signal Service	TSS/TFS	(277,535)	13,368	
Total Street Lighting		296,759	366,772	
Industrial:				
I - Textile	LGS	-	(1,503)	
I - Nontextile	LGS	(800,431)	-	
Total Industrial		(800,431)	(1,503)	
Total		102,158,265	(5,127,863)	78,202,031

¹ Using the regression method (Residential, Lighting, SGS classes) and a customer by customer method for MGS and Industrial

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Reagents
Billing Period December 2017 - November 2018

Ward Workpaper 12
Docket No. E-2, Sub 1146

(\$)

Date	Ammonia	Limestone	Limestone Off-System Sales	Catalyst Depreciation	Magnesium hydroxide	Calcium Carbonate	Total NC System Reagent Cost \$	Gypsum (Gain)/Loss\$	Ash (Gain)/Loss \$	Total NC System Reagent Cost and ByProduct (Gain)/Loss \$
12/1/17	\$ 356,272	\$ 915,158	(18,567.22)	\$ 595,847	\$ 306,513	\$ 116,522	\$ 2,271,744	\$ 29,851	\$ (11,283)	\$ 2,290,312
1/1/18	\$ 616,327	\$ 1,524,922	(63,408.66)	\$ 595,847	\$ 502,998	\$ 207,198	\$ 3,383,883	\$ (32,112)	\$ (23,039)	\$ 3,328,733
2/1/18	\$ 338,730	\$ 880,980	(61,884.74)	\$ 595,847	\$ 287,337	\$ 108,039	\$ 2,149,047	\$ (37,503)	\$ (15,012)	\$ 2,096,532
3/1/18	\$ 130,478	\$ 425,662	(11,421.76)	\$ 595,847	\$ 78,347	\$ 30,956	\$ 1,249,867	\$ 66,451	\$ (3,377)	\$ 1,312,942
4/1/18	\$ 93,631	\$ 277,627	(4,579.80)	\$ 595,847	\$ 75,362	\$ 24,918	\$ 1,062,806	\$ 7,973	\$ (3,868)	\$ 1,066,911
5/1/18	\$ 105,328	\$ 381,522	(4,389.19)	\$ 595,847	\$ 61,685	\$ 21,288	\$ 1,161,280	\$ 70,148	\$ (2,847)	\$ 1,228,580
6/1/18	\$ 412,744	\$ 1,200,157	(20,153.44)	\$ 595,847	\$ 360,734	\$ 145,051	\$ 2,694,379	\$ (32,891)	\$ (16,553)	\$ 2,644,935
7/1/18	\$ 532,966	\$ 1,559,267	(18,979.47)	\$ 595,847	\$ 442,159	\$ 187,946	\$ 3,299,205	\$ (66,508)	\$ (21,294)	\$ 3,211,403
8/1/18	\$ 516,576	\$ 1,538,320	(13,223.06)	\$ 595,847	\$ 432,802	\$ 184,464	\$ 3,254,786	\$ (81,203)	\$ (20,884)	\$ 3,152,698
9/1/18	\$ 159,280	\$ 503,639	(8,481.30)	\$ 595,847	\$ 129,444	\$ 48,041	\$ 1,427,770	\$ (14,056)	\$ (6,956)	\$ 1,406,758
10/1/18	\$ 85,864	\$ 303,778	(6,873.27)	\$ 595,847	\$ 53,706	\$ 21,416	\$ 1,053,737	\$ 27,949	\$ (2,962)	\$ 1,078,724
11/1/18	\$ 73,860	\$ 307,966	(13,122.89)	\$ 595,847	\$ 36,762	\$ 10,296	\$ 1,011,608	\$ 72,295	\$ (1,528)	\$ 1,082,375
Total	\$ 3,422,057	\$ 9,818,996	\$ (245,085)	\$ 7,150,158	\$ 2,767,850	\$ 1,106,136	\$ 24,020,113	\$ 10,393	\$ (129,602)	\$ 23,900,904

Note: Totals may not sum due to rounding

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2% Calculation Test
Billing Period December 2017 - November 2018

Ward Workpaper 13
Docket No. E-2, Sub 1146

Line No.	Description	EMF (Over)/Under		
		Forecast \$	Collection \$	Total \$
1	Amount in current docket	\$ 148,740,646	\$ 63,374,757	\$ 212,115,403
2	Amount in 2016 Filing: Docket E-2 Sub 1107 ⁽¹⁾	\$ 139,579,315	\$ 5,505,223	\$ 145,084,538
3	Increase/(Decrease)	\$ 9,161,331	\$ 57,869,534	\$ 67,030,865
4	2% of 2016 NC revenue of \$3,375,847,367			\$ 67,516,947

⁽¹⁾ From Revised McGee Workpaper 13 from E-2, Sub 1107 Supplemental filing

		System Cost	Alloc %	NC Alloc. Forecast
WP 4	Purchases Total	\$ 41,519,620	60.35%	\$ 25,057,091
WP 4	Renewables Energy	\$ 154,215,192	60.35%	\$ 93,068,869
WP 4	Renewables Capacity	\$ 31,684,006	59.73%	\$ 18,925,807
WP 4	Other purchase info not in model*	\$ 19,368,483	60.35%	\$ 11,688,879
	Total	\$ 246,787,301		\$ 148,740,646

* Allocated Economic Purchases, Excludes JDA Transfer purchases and Savings

Line No.	Reference	Apr'16	May'16	Jun'16	July'16	Aug'16	Sept'16	Oct'16	Nov'16	Dec'16	Jan'17	Feb'17	Mar'17	2016F	
1	System kWh Sales, at generation	Schedule 4 (Line 3)	8,368,389,684	4,551,988,663	5,494,631,009	6,359,393,524	6,815,099,338	5,930,560,110	4,872,188,697	4,541,469,093	5,077,570,348	5,837,934,277	4,711,196,051	4,811,728,805	63,173,568,507
2	NC Retail kWh Sales, at generation	Schedule 4 (Line 4c)	2,713,691,694	2,737,781,430	3,288,041,085	3,701,934,093	4,094,182,081	3,766,769,530	2,986,058,625	2,692,796,058	2,999,971,469	3,602,329,624	2,983,145,960	2,967,909,164	38,514,493,780
3	NC Retail % of Sales	Line 2 / Line 1	62.12%	60.14%	59.84%	58.23%	60.08%	63.53%	63.91%	59.29%	59.08%	61.70%	63.31%	61.68%	61.00%
Total Purchase Power, Encl. JDA															
4	System Purchase Power, incl. Renewable & Encl. JDA		\$ 18,867,518	\$ 18,914,130	\$ 19,068,582	\$ 24,129,907	\$ 26,422,347	\$ 24,304,626	\$ 17,010,938	\$ 23,996,269	\$ 17,866,455	\$ 16,070,443	\$ 16,291,274	\$ 31,028,099	\$ 257,970,796
5	NC Purchase Power	Line 4 * Line 3	\$ 11,720,707	\$ 11,375,895	\$ 11,410,418	\$ 16,374,999	\$ 15,873,272	\$ 15,436,978	\$ 10,871,454	\$ 14,228,228	\$ 10,556,010	\$ 9,918,047	\$ 10,313,503	\$ 19,138,355	\$ 157,215,865
6	NC Retail kWh Sales	Sch. 4 (Line 4c)	2,600,934,958	2,623,854,707	3,150,542,583	3,546,318,104	3,921,804,085	3,606,731,774	2,862,105,988	2,542,057,175	2,873,976,261	2,873,976,261	2,858,254,851	2,843,634,718	36,345,195,465
7	Incurred Rate	Line 5 / Line 6 * 100	0.451	0.434	0.362	0.462	0.405	0.428	0.340	0.551	0.367	0.345	0.361	0.673	0.433
Total Capacity															
8	System Capacity		\$ 3,370,446	\$ 3,084,170	\$ 2,414,562	\$ 5,051,623	\$ 3,909,640	\$ 4,694,925	\$ 2,264,828	\$ 1,207,368	\$ 2,762,140	\$ 1,669,052	\$ 2,516,521	\$ 3,091,243	\$ 36,036,316
9	NC Capacity	Capacity** 6315	\$ 2,128,437	\$ 1,947,653	\$ 1,524,796	\$ 3,190,100	\$ 2,468,937	\$ 2,964,844	\$ 1,430,239	\$ 762,327	\$ 1,744,291	\$ 1,054,006	\$ 2,549,183	\$ 1,952,120	\$ 22,756,934
10	NC Retail kWh Sales	Line 6	2,600,934,958	2,623,854,707	3,150,542,583	3,546,318,104	3,921,804,085	3,606,731,774	2,862,105,988	2,542,057,175	2,873,976,261	2,873,976,261	2,858,254,851	2,843,634,718	36,345,195,465
11	Incurred Rate	Line 10 / Line 11 * 100	0.082	0.074	0.048	0.090	0.063	0.082	0.050	0.030	0.061	0.037	0.056	0.069	0.063
Total Incurred Rate (Purchased Power, Renewable Energy + Capacity)															
12		Line 7 + Line 11	0.532	0.508	0.411	0.552	0.468	0.510	0.430	0.581	0.428	0.382	0.416	0.7416723	0.495
13	Billed Rate	Billed Rates Below	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.303	0.310	0.165	0.370	0.3701523	
14	Over/(Under) cents per kWh	Line 13 - Line 12	(0.229)	(0.204)	(0.107)	(0.248)	(0.164)	(0.207)	(0.126)	(0.277)	(0.098)	(0.017)	(0.046)	(0.3713210)	
15	Over/(Under) \$	Line 14 * Line 10 / 100	(5,559,563)	(5,364,444)	(1,378,473)	(8,807,821)	(6,445,953)	(7,455,227)	(3,619,885)	(7,161,271)	(2,807,445)	(487,198)	(1,322,790)	(10,564,640)	(61,874,757)
Billed Rate from Docket E-2, Sub 1063 - Apr'16-Nov'16															
16	Purchases (Other Purchases + Economic Purchases)	62,598,350	McGee Supplemental Worksheet 4 + 5												
17	MW Sales	62,510,062	McGee Supplemental Worksheet 3												
18	Billed Rate for Purchases	0.099													
19	Renewables	106,255,915	McGee Supplemental Worksheet 4												
20	MW Sales	62,510,062	McGee Supplemental Worksheet 3												
21	Billed Rate for Renewables	0.170													
22	Capacity	21,763,359	McGee Settlement Exhibit 2, Schedule 2 (Not officially filed)												
23	MW Sales	62,510,062	McGee Supplemental Worksheet 3												
24	Billed Rate for Capacity	0.035													
25	Total Billed Rate	0.303													
Billed Rate from Docket E-2, Sub 1107 - Dec'16-Mar'17															
26	Purchases (Other Purchases + Economic Purchases)	60,801,775	McGee Worksheet 4 + 5												
27	MW Sales	62,219,566	McGee Worksheet 3												
28	Billed Rate for Purchases	0.098													
29	Renewables	140,601,055	McGee Worksheet 4												
30	MW Sales	62,219,566	McGee Worksheet 3												
31	Billed Rate for Renewables	0.228													
32	Capacity	28,904,344	Revised McGee Exhibit 2, Schedule 2												
33	MW Sales	62,219,566	McGee Worksheet 3												
34	Billed Rate for Capacity	0.048													
35	Total Billed Rate	0.370													

* December billed Rate is based on prorated billing factors
Prior Bill Rate (Sub 1069) 0.303
Ratios of Days to rate 59.64%
Prorated Rate 0.383
New Bill Rate (Sub 1107) 0.370
Ratios of Days to rate 40.36%
Prorated Rate 0.349

** January billed Rate is based on prorated billing factors
Prior Bill Rate (Sub 1069) 0.303
Ratios of Days to rate 8.08%
Prorated Rate 0.025
New Bill Rate (Sub 1107) 0.370
Ratios of Days to rate 91.92%
Prorated Rate 0.340

Total Blended Rate for December 0.330

Total Blended Rate for January 0.365

PHIPPS EXHIBIT 1

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Duke Energy Carolinas, LLC Fossil Fuel Procurement Practices**Coal**

- Near and long-term coal consumption is forecasted based on inputs such as load projections, fleet maintenance and availability schedules, coal quality and cost; environmental permit and emissions considerations; and wholesale energy imports and exports.
- Station and system inventory targets are developed to provide reliability, insulation from short-term market volatility, and sensitivity to evolving coal production and transportation conditions. Inventories are monitored continuously.
- On a continuous basis, existing purchase commitments are compared with consumption and inventory requirements to ascertain additional needs.
- All qualified suppliers are invited to participate in proposals to satisfy additional or contract needs.
- Spot market solicitations are conducted on an on-going basis to supplement contract purchases.
- Contracts are awarded based on the lowest evaluated offer, considering factors such as price, quality, transportation, reliability and flexibility.
- Delivered coal volume and quality are monitored against contract commitments. Coal and freight payments are calculated based on certified scale weights and coal quality analysis meeting ASTM standards as established by ASTM International.

Gas

- Near and long-term natural gas consumption is forecasted based on inputs such as load projections, commodity and emission prices, and fleet maintenance and availability schedules.
- Physical procurement targets are developed to procure a cost effective and reliable natural gas supply.
- Over time, short-term and long-term Requests for Proposals and market solicitations are conducted with potential suppliers to procure the cost competitive, secure, and reliable natural gas supply, firm transportation, and storage capacity needed to meet forecasted gas usage.
- Short-term and spot purchases are conducted on an on-going basis to supplement term natural gas supply.
- On a continuous basis, existing purchases are compared against forecasted gas usage to ascertain additional needs.
- Natural gas transportation for the generation fleet is obtained through a mix of long term firm transportation agreements, and shorter term pipeline capacity purchases.
- A targeted percentage of the natural gas fuel price exposure is managed via a rolling 36-month structured financial natural gas hedging program.
- Through the Asset Management and Delivered Supply Agreement between Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC implemented on January 1, 2103, DEC serves as the designated Asset Manager that procures and manages the combined gas supply needs for the combined Carolinas gas fleet.

Fuel Oil

- No. 2 fuel oil is burned primarily for initiation of coal combustion (light-off at steam plants) and in combustion turbines (peaking assets).
- All No. 2 fuel oil is moved via pipeline to applicable terminals where it is then loaded on trucks for delivery into the Company's storage tanks. Because oil usage is highly variable, the Company relies on a combination of inventory, responsive suppliers with access to multiple terminals, and trucking agreements to manage its needs. Replenishment of No. 2 fuel oil inventories at the applicable plant facilities is done on an "as needed basis" and coordinated between fuel procurement and station personnel.
- Formal solicitations for supply may be conducted as needed with an emphasis on maintaining a network of reliable suppliers at a competitive market price in the region of our generating assets.

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DUKE ENERGY PROGRESS
Summary of Coal Purchases
Twelve Months Ended March 2017 & 2016
Tons

Jun 21 2017

<u>Line No.</u>	<u>Month</u>	<u>Contract (Tons)</u>	<u>Net Spot Purchase and Sales (Tons)</u>	<u>Total (Tons)</u>
1	April 2016	243,140	0	243,140
2	May	240,749	0	240,749
3	June	251,139	0	251,139
4	July	367,433	0	367,433
5	August	496,536	0	496,536
6	September	505,889	0	505,889
7	October	392,494	41	392,535
8	November	525,819	0	525,819
9	December	494,298	12,899	507,197
10	January 2017	319,044	72,713	391,757
11	February	284,208	29,067	313,275
12	March	191,908	13,396	205,304
13	Total (Sum L1:L12)	4,312,657	128,116	4,440,773

<u>Line No.</u>	<u>Month</u>	<u>Contract (Tons)</u>	<u>Net Spot Purchase and Sales (Tons)</u>	<u>Total (Tons)</u>
14	April 2015	538,920	0	538,920
15	May	499,049	0	499,049
16	June	388,031	0	388,031
17	July	497,293	0	497,293
18	August	531,402	61,083	592,485
19	September	578,888	62,257	641,145
20	October	556,881	142,145	699,026
21	November	335,613	81,620	417,233
22	December	213,630	58,536	272,166
23	January 2016	135,132	104,742	239,874
24	February	255,566	46,882	302,448
25	March	459,644	0	459,644
26	Total (Sum L14:L25)	4,990,049	557,265	5,547,314

DUKE ENERGY PROGRESS
Summary of Gas Purchases
Twelve Months Ended March 2017 & 2016
MBTUs

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Jun 21 2017

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
1	April 2016	14,115,727
2	May	14,616,922
3	June	14,111,918
4	July	16,564,902
5	August	17,177,486
6	September	12,559,298
7	October	9,919,151
8	November	14,384,387
9	December	13,607,974
10	January 2017	13,786,819
11	February	14,028,144
12	March	14,884,889
13	Total (Sum L1:L12)	169,757,617

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
14	April 2015	12,523,884
15	May	14,416,738
16	June	15,284,136
17	July	15,111,611
18	August	14,768,643
19	September	14,633,497
20	October	10,978,923
21	November	15,252,462
22	December	14,132,589
23	January 2016	15,130,511
24	February	16,389,046
25	March	17,697,705
26	Total (Sum L14:L25)	176,319,745

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Jun 21 2017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1146

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

BRETT PHIPPS CONFIDENTIAL EXHIBIT 3

FILED UNDER SEAL

JUNE 21, 2017

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JUN 21 2017

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET E-2, SUB 1146

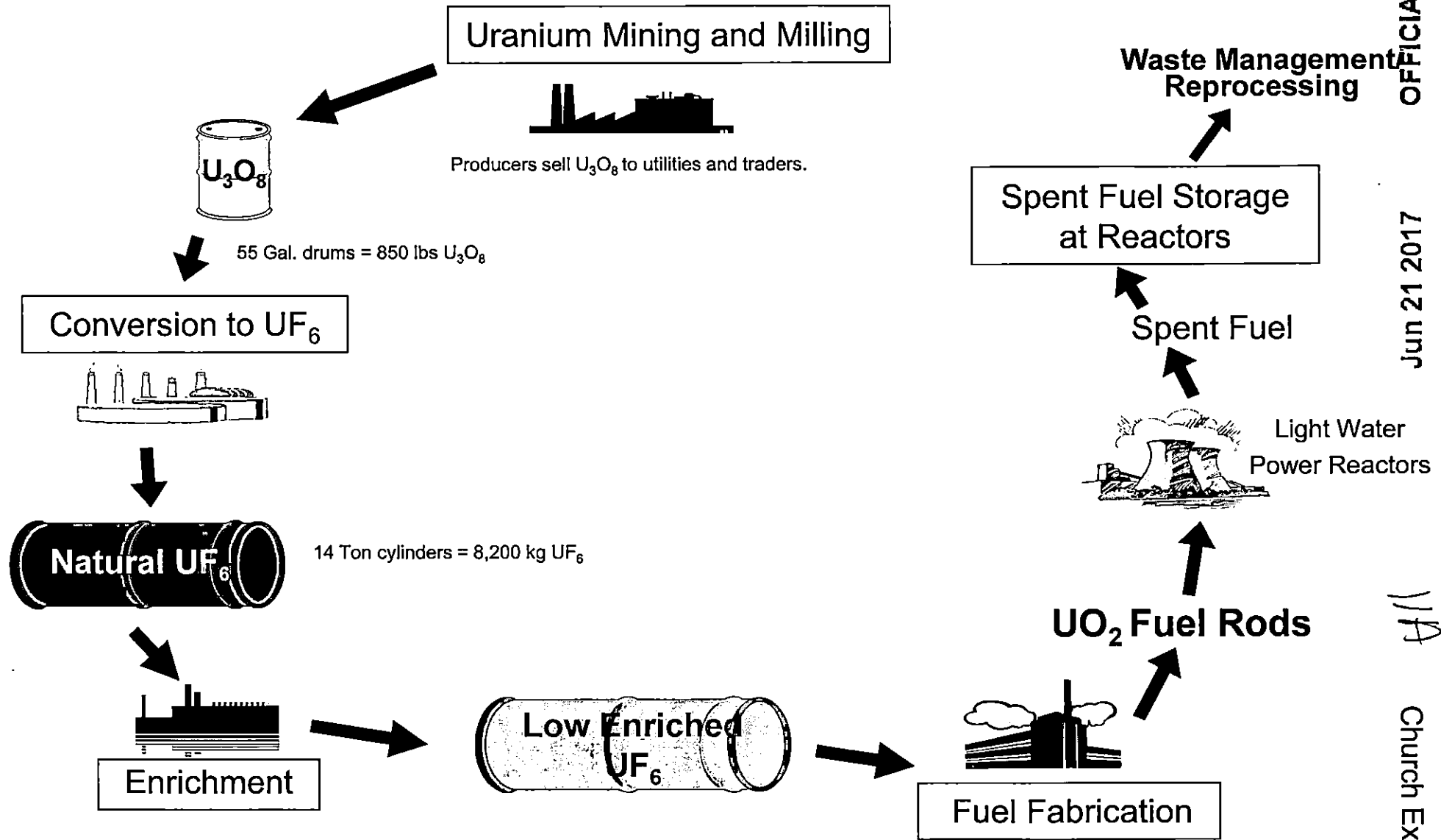
In the Matter of)
Application of Duke Energy Progress, LLC)
Pursuant to G.S. 62-133.2 and NCUC Rule)
R8-55 Relating to Fuel and Fuel-Related)
Charge Adjustments for Electric Utilities)
_____)

T. PRESTON GILLESPIE, JR.
CONFIDENTIAL EXHIBIT 1

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June 21, 2017

The Nuclear Fuel Cycle



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Jun 21 2017

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Church Exhibit 1

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Church Exhibit 2

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Duke Energy Progress, LLC Nuclear Fuel Procurement Practices

The Company's nuclear fuel procurement practices are summarized below:

- Near and long-term consumption forecasts are computed based on factors such as: nuclear system operational projections given fleet outage/maintenance schedules, adequate fuel cycle design margins to key safety licensing limitations, and economic tradeoffs between required volumes of uranium and enrichment necessary to produce the required volume of enriched uranium.
- Nuclear system inventory targets are determined and designed to provide: reliability, insulation from market volatility, and sensitivity to evolving market conditions. Inventories are monitored on an ongoing basis.
- On an ongoing basis, existing purchase commitments are compared with consumption and inventory requirements to ascertain additional needs.
- Qualified suppliers are invited to make proposals to satisfy additional or future contract needs.
- Contracts are awarded based on the most attractive evaluated offer, considering factors such as price, reliability, flexibility and supply source diversification/portfolio security of supply.
- For uranium concentrates, conversion and enrichment services, long term supply contracts are relied upon to fulfill the largest portion of forward requirements. By staggering long-term contracts over time, the Company's purchases within a given year consist of a blend of contract prices negotiated at many different periods in the markets, which has the effect of smoothing out the Company's exposure to price volatility. Due to the technical complexities of changing suppliers, fabrication services are generally sourced to a single domestic supplier on a plant-by-plant basis using multi-year contracts.
- Spot market opportunities are evaluated from time to time to supplement long-term contract supplies as appropriate based on comparison to other supply options.
- Delivered volumes of nuclear fuel products and services are monitored against contract commitments. The quality and volume of deliveries are confirmed by the delivery facility to which Duke Energy Progress has instructed delivery. Payments for such delivered volumes are made after Duke Energy Progress' receipt of such delivery facility confirmations.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Summary Comparison of Fuel and Fuel Related Cost Factors
Test Period Twelve Months Ended March 31, 2017
Billing Period December 1, 2017 - November 30, 2018
Docket E-2, Sub 1146

Revised Ward 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 1107)</u>							
1	Approved Fuel and Fuel Related Costs Factors	Input	1.993	2.088	2.431	2.253	0.596
2	EMF Increment / (Decrement)	Input	(0.137)	(0.308)	(0.383)	(0.014)	0.280
3	EMF Interest Decrement cents/kWh	Input	(0.023)	(0.051)	(0.064)	(0.002)	-
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	1.833	1.729	1.984	2.237	0.876
<u>Fuel and Fuel Related Cost Factors</u>							
5	NERC Capacity Factor of 88.9% with Projected Sales	Exh 2 Sch 3 pg 3	2.235	2.184	2.302	2.446	1.783
6	Proposed Nuclear Capacity Factor of 92.6% and Normalized Test Period Sales	Exh 2 Sch 2 pg 3	2.172	2.098	2.236	2.434	1.685
<u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.6%</u>							
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	2.099	2.030	2.283	2.371	1.656
8	Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.080	0.091	0.073	0.046	0.001
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	2.179	2.121	2.356	2.417	1.657
10	EMF Increment/(Decrement) cents/kWh	Exh 2 Sch 1 pg 2	-	-	(0.084)	-	-
11	EMF Interest Decrement cents/kWh	Exh 2 Sch 1 pg 2	-	-	(0.014)	-	-
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 pg 2	2.179	2.121	2.258	2.417	1.657

6/1/17

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 92.6%
Twelve Months December 2017 - November 2018
Docket E-2, Sub 1146

Revised Ward Exhibit 2
Schedule 1
Page 1 of 3

Line No.	Unit	Reference	Generation (MWH)	Unit Cost (cents/KWh)	Fuel Cost (\$)
			A	C/A/10=B	C
1	Total Nuclear	Workpaper 3-4	28,721,189	0.7137	\$ 204,976,825
2	Coal	Workpaper 3 - 4	9,784,920	3.2327	316,313,648
3	Gas - CT and CC	Workpaper 3 - 4	20,231,727	2.8710	580,845,112
4	Reagents & By Products	Workpaper 12	-		23,900,904
5	Total Fossil	Sum of Lines 2 - 4	30,016,647		921,059,663
6	Hydro	Workpaper 3	598,023		
7	Net Pumped Storage		-		
8	Total Hydro	Sum of Lines 6 - 7	598,023		
9	Utility Owned Solar Generation	Workpaper 3	282,714		
10	Total Generation	Line 1 + Line 5 + Line 8 + line 9	59,618,574		1,126,036,488
11	Purchases		6,754,590		289,435,336
12	Purchases from Qualifying Facilities (HB 589)		1,649,687		66,905,882
13	JDA Savings Shared	Workpaper 5	-		(1,894,189)
14	Total Purchases	Sum of Lines 11 - 12	8,404,277		354,447,029
15	Total Generation and Purchases	Line 10 + Line 13	68,022,851		1,480,483,517
16	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(3,109,193)		(79,089,672)
17	Line losses and Company use	Line 19 - Line 15 - Line 14	(2,749,842)		-
18	System Fuel Expense for Fuel Factor	Line 14 + Line 15 + Line 16			\$ 1,401,393,845
19	Projected System MWh Sales for Fuel Factor	Workpaper 3	62,163,816		62,163,816
20	Fuel and Fuel Related Costs cents/kWh	Line 17 /Line 18 / 10			2.254

Note: Rounding differences may occur
Adjusted to include 100% ownership of all generating resources.

5/19

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 92.6%
Twelve Months December 2017 - November 2018
Docket E-2, Sub 1146

Revised Ward Exhibit 2
Schedule 1
Page 2 of 3

Line No.	Description		Residential cents/KWh	General Service Small cents/KWh	General Service Medium cents/KWh	General Service Large cents/KWh	Lighting cents/KWh	Total
1	NC Projected Billing Period MWH Sales	Workpaper 7	15,667,933	1,808,399	10,417,309	9,237,571	395,287	37,526,498
<u>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</u>								Amount
2	Renewable Purchased Power - Capacity	Workpaper 4						\$ 31,684,006
3	Cogeneration Purchased Power - Capacity							-
4	Purchases from Qualifying Facilities (HB 589)							11,792,060
5	Total of Renewable and Cogeneration Purchased Power Capacity	Line 2 + Line 3						\$ 43,476,066
6	NC Portion - Jurisdictional % based on Production Plant Allocator	Input						59.73%
7	NC Renewable and Cogeneration Purchased Power Capacity	Line 4 * Line 5						\$ 25,969,558
8	Production Plant Allocation Factors	Input	48.271%	6.307%	29.139%	16.275%	0.009%	100.000%
9	Renewable Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 12,535,641	\$ 1,637,777	\$ 7,567,340	\$ 4,226,514	\$ 2,286	\$ 25,969,558
10	Renewable Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.080	0.091	0.073	0.046	0.001	0.069
<u>Summary of Total Rate by Class</u>								
11	Fuel and Fuel Related Costs excluding Renewable Purchased Power and Cogeneration Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	2.099	2.030	2.283	2.371	1.656	
12	Purchased Power - Capacity cents/kWh	Line 9	0.080	0.091	0.073	0.046	0.001	
13	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.179	2.121	2.356	2.417	1.657	
14	EMF Increment/(Decrement) cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.084)	-	-	
15	EMF Interest Decrement cents/kWh	Exh 3 pg 2, 3, 4, 5, 6	-	-	(0.014)	-	-	
16	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	2.179	2.121	2.258	2.417	1.657	

Note: Rounding differences may occur

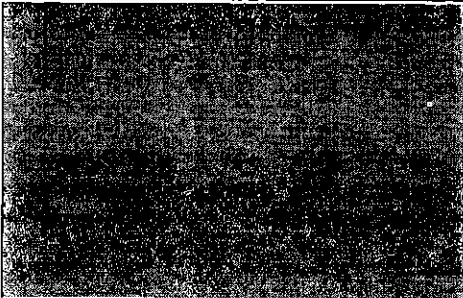
Line No.	Rate Class	Projected Billing Period MWH Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease) cents/kwh	Current Total Fuel Rate (including renewables and EMF) E-2, Sub 1107 cents/kwh	Proposed Total Fuel Rate (including renewables and EMF) cents /kwh
		A	B	C	D	E	F	G
		Exhibit 2, Schedule 1, page 2	Worksheet 9	Line 25 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	15,667,933	\$ 1,556,293,890	\$ 54,253,253	3.5%	0.346	1.833	2.179
2	Small General Service	1,803,399	\$ 204,814,740	\$ 7,094,368	3.5%	0.391	1.729	2.121
3	Medium General Service	10,417,309	\$ 822,901,121	\$ 28,503,631	3.5%	0.274	1.984	2.258
4	Large General Service	9,237,571	\$ 460,324,787	\$ 16,637,479	3.5%	0.180	2.237	2.417
5	Lighting	335,287	\$ 89,169,268	\$ 3,088,643	3.5%	0.781	0.876	1.657
6	NC Retail	37,526,498	\$ 3,163,503,807	\$ 109,577,374				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs		\$ 1,402,050,960					
8	System Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	43,476,066					
9	Adjusted System Other Fuel Costs	Line 7 - Line 8	\$ 1,358,574,894					
10	NC Retail Allocation % - sales at generation	Worksheet 8	60.89%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 827,236,253					
12	NC Renewable and Cogeneration Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	25,969,558					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 853,205,811					
14	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	2.274					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	(0.025)					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	(0.004)					
18	Total Proposed Composite Fuel Rate	Sum of Lines 15-17	2.245					
Total Current Composite Fuel Rate - Docket E-2 Sub 1107:								
19	Current composite Fuel Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	2.172					
20	Current composite EMF Rate cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.187)					
21	Current composite EMF Interest cents/kWh	Revised McGee Exhibit 2, Sch. 1, Pg 3	(0.032)					
22	Total Current Composite Fuel Rate	Sum of Lines 19-21	1.953					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.292					
24	NC Projected Billing Period MWH Sales	Line 6, col A	37,526,498					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 109,577,374					

Note: Rounding differences may occur

Includes 100% ownership of all generating resources

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Proposed Composite
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 1 of 6

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 2016 (Sub 1069)			2,600,935	\$ 10,069,491	-	\$ 10,069,491
2	May			2,623,855	2,922,867	-	2,922,867
3	June			3,150,543	(3,195,111)	-	(3,195,111)
4	July			3,546,318	(14,204,192)	-	(14,204,192)
5	August			3,921,804	(6,364,676)	876,686	(5,487,990)
6	September			3,608,732	951,826	-	951,826
7	October			2,862,106	(176,810)	-	(176,810)
8	November			2,581,057	2,493,779	-	2,493,779
9	December (1) (New Rates - Sub 1107)			2,873,976	(10,213,615)	-	(10,213,615)
10	January 2017			3,449,952	(2,942,213)	-	(2,942,213)
11	February			2,858,255	2,290,030	-	2,290,030
12	March			2,843,639	(15,029,118)	-	(15,029,118)
13	Total Test Period			36,921,171	\$ (33,397,742)	\$ 876,686	\$ (32,521,056)
14	Less: Proposed (under) collection deferral						41,864,753
15	Booked Over Recovery April 2016 to March 2017						\$ 9,343,697
16	Normalized Test Period MWh Sales	Exhibit 4					37,570,033
17	Experience Modification Increment / (Decrement) cents/KWh						(0.025)
18	Interest						\$ 1,557,282
19	EMF Interest Decrement						(0.004)

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

6/1

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Residential
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 2 of 6

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 2016 (Sub 1069)	2.346	2.450	956,300	\$ 989,962		\$ 989,962
2	May	2.730	2.450	942,463	(2,639,367)		(2,639,367)
3	June	2.695	2.450	1,253,280	(3,066,524)		(3,066,524)
4	July	2.796	2.450	1,525,470	(5,283,467)		(5,283,467)
5	August	2.509	2.450	1,720,332	(1,010,695)	384,566	(626,129)
6	September	2.461	2.450	1,495,082	(171,336)		(171,336)
7	October	2.904	2.450	1,014,698	(4,602,060)		(4,602,060)
8	November	2.705	2.450	939,368	(2,392,665)		(2,392,665)
9	December (1) (New Rates - Sub 1107)	2.427	2.266	1,271,814	(2,616,780)		(2,616,780)
10	January 2017	1.825	2.030	1,652,408	3,385,022		3,385,022
11	February	1.867	1.993	1,227,196	1,542,586		1,542,586
12	March	2.481	1.993	1,189,431	(5,801,925)		(5,801,925)
13	Total Test Period			15,187,842	\$ (21,667,250)	\$ 384,566	\$ (21,282,684)
14	Less: Proposed (under) collection deferral						21,282,684
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales		Exhibit 4				15,786,375
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest					\$	-
22	EMF Interest Decrement						-

Notes:

⁽¹⁾ Adjustment included in over/(under) recovery total

Totals may not foot due to rounding.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Small General Service
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 3 of 6

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 2016 (Sub 1069)	2.130	2.433	127,657	\$ 387,235		\$ 387,235
2	May	2.333	2.433	133,424	133,103		133,103
3	June	2.502	2.433	162,989	(111,794)		(111,794)
4	July	2.738	2.433	188,465	(575,553)		(575,553)
5	August	2.520	2.433	206,951	(179,944)	46,262	(133,682)
6	September	2.279	2.433	195,485	301,985		301,985
7	October	2.419	2.433	147,111	21,331		21,331
8	November	2.388	2.433	128,330	58,095		58,095
9	December (1) (New Rates - Sub 1107)	2.709	2.294	137,561	(639,263)		(639,263)
10	January 2017	2.122	2.116	171,104	(11,208)		(11,208)
11	February	1.925	2.088	143,708	234,876		234,876
12	March	2.589	2.088	137,528	(688,960)		(688,960)
13	Total Test Period			1,880,312	\$ (1,070,097)	\$ 46,262	\$ (1,023,834)
14	Less: Proposed (under) collection deferral						1,023,834
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales		Exhibit 4				1,896,757
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest						\$ -
22	EMF Interest Decrement						-

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Medium General Service
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 4 of 6

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 (d)
1	April 2016 (Sub 1069)	1.798	2.433	830,252	\$ 5,272,601		\$ 5,272,601
2	May	1.958	2.433	874,335	4,154,226		4,154,226
3	June	2.291	2.433	981,137	1,397,531		1,397,531
4	July	2.704	2.433	1,049,724	(2,841,078)		(2,841,078)
5	August	2.489	2.433	1,153,731	(647,474)	257,907	(389,567)
6	September	2.222	2.433	1,101,799	2,323,363		2,323,363
7	October	2.079	2.433	943,065	3,339,580		3,339,580
8	November	2.063	2.433	819,586	3,031,566		3,031,566
9	December (1) (New Rates - Sub 1107)	2.744	2.432	809,499	(2,894,712)		(2,894,712)
10	January 2017	2.607	2.431	922,582	(1,618,378)		(1,618,378)
11	February	2.312	2.431	800,779	955,169		955,169
12	March	2.833	2.431	841,518	(3,386,606)		(3,386,606)
13	Total Test Period			11,128,006	\$ 9,085,789	\$ 257,907	\$ 9,343,696
14	Less: Proposed (under) collection deferral						-
15	Booked Over Recovery April 2016 to March 2017						\$ 9,343,696
16	Normalized Test Period MWh Sales		Exhibit 4				11,162,395
17	Experience Modification Increment (Decrement) cents/KWh						(0.084)
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest						\$ 1,557,282
22	EMF Interest Decrement						(0.014)

Notes:

(1) Adjustment included in over/(under) recovery total
Totals may not foot due to rounding.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Large General Service
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 5 of 6

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 2016 (Sub 1069)	1.781	2.289	654,342	\$ 3,323,860		\$ 3,323,860
2	May	2.090	2.289	641,603	1,279,806		1,279,806
3	June	2.453	2.289	721,182	(1,180,214)		(1,180,214)
4	July	2.960	2.289	751,098	(5,037,465)		(5,037,465)
5	August	2.791	2.289	808,252	(4,057,587)	180,678	(3,876,909)
6	September	2.440	2.289	785,140	(1,187,366)		(1,187,366)
7	October	2.125	2.289	725,884	1,193,499		1,193,499
8	November	2.013	2.289	662,814	1,830,758		1,830,758
9	December (1) (New Rates - Sub 1107)	2.851	2.274	624,718	(3,899,417)		(3,899,417)
10	January 2017	2.945	2.256	672,899	(4,634,992)		(4,634,992)
11	February	2.322	2.253	655,990	(450,665)		(450,665)
12	March	3.046	2.253	644,249	(5,111,216)		(5,111,216)
13	Total Test Period			8,348,171	\$ (17,931,000)	\$ 180,678	\$ (17,750,323)
14	Less: Proposed (under) collection deferral						17,750,323
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales		Exhibit 4				8,347,370
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest						\$ -
22	EMF Interest Decrement						-

Notes:

⁽¹⁾ Adjustment included in over/(under) recovery total

Totals may not foot due to rounding.

Duke Energy Progress, LLC.
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Lighting
Test Period Twelve Months Ended March 31, 2017
Docket E-2, Sub 1146

Revised Ward Exhibit 3
Page 6 of 6

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 2016 (Sub 1069)	1.830	2.126	32,384	\$ 95,833		\$ 95,833
2	May	2.141	2.126	32,030	(4,901)		(4,901)
3	June	2.859	2.126	31,956	(234,110)		(234,110)
4	July	3.605	2.126	31,561	(466,629)		(466,629)
5	August	3.567	2.126	32,537	(468,976)	7,273	(461,703)
6	September	3.134	2.126	31,226	(314,820)		(314,820)
7	October	2.538	2.126	31,349	(129,160)		(129,160)
8	November	2.236	2.126	30,959	(33,975)		(33,975)
9	December (1) (New Rates - Sub 1107)	1.995	1.508	30,385	(163,444)		(163,444)
10	January 2017	0.922	0.720	30,959	(62,657)		(62,657)
11	February	0.570	0.596	30,582	8,064		8,064
12	March	0.727	0.596	30,913	(40,412)		(40,412)
13	Total Test Period			376,840	\$ (1,815,185)	\$ 7,273	\$ (1,807,912)
14	Less: Proposed (under) collection deferral						1,807,912
15	Booked Over Recovery April 2016 to March 2017						\$ -
16	Normalized Test Period MWh Sales	Exhibit 4					377,137
17	Experience Modification Increment (Decrement) cents/KWh						-
18	Annual Interest Rate						10%
19	Monthly Interest Rate						0.83333%
20	Number of Months (October 2016 - May 2018)						20
21	Interest						\$ -
22	EMF Interest Decrement						-

Notes:

(1) Adjustment included over/(under) recovery total

Totals may not foot due to rounding.