

1 PLACE: Dobbs Building, Raleigh, North Carolina

2 DATE: Tuesday, June 11, 2019

3 TIME: 9:30 a.m. - 9:40 a.m.

4 DOCKET NO: E-7, Sub 1190

5 BEFORE: Chair Charlotte A. Mitchell, Presiding

6 Commissioner ToNola D. Brown-Bland

7 Commissioner Jerry C. Dockham

8 Commissioner James G. Patterson

9 Commissioner Lyons Gray

10 Commissioner Daniel G. Clodfelter

11  
12  
13 **IN THE MATTER OF:**

14 Application of Duke Energy Carolinas, LLC

15 Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55

16 Relating to Fuel and Fuel-Related Charge Adjustments

17 for Electric Utilities.  
18  
19  
20  
21  
22  
23  
24

1 A P P E A R A N C E S:

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21  
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24  
NORTH CAROLINA UTILITIES COMMISSION

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## E X H I B I T S

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Application of

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McGee Exhibits 1 - 6 and McGee

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JUN 27 2019

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

In the Matter of	)	
Application of Duke Energy Carolinas, LLC	)	
Pursuant to G.S. 62-133.2 and NCUC Rule	)	<b>DUKE ENERGY CAROLINAS,</b>
R8-55 Relating to Fuel and Fuel-Related	)	<b>LLC'S APPLICATION</b>
Charge Adjustments for Electric Utilities	)	

Duke Energy Carolinas, LLC ("DEC," "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 550 South Tryon Street, Charlotte, North Carolina, and its mailing address is:

Duke Energy Carolinas, LLC  
P. O. Box 1006  
Charlotte, North Carolina 28201-1006

2. The name and address of Applicant's attorney are:

Jack E. Jirak  
Associate General Counsel  
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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 DEC and requires that DEC use a calendar year test period (12 months ended December 31). Therefore, the test period used in this Application for these proceedings is the calendar year 2018.

4. In Docket No. E-7, Sub 1163, DEC's last fuel case, the Commission approved the following base fuel and fuel-related costs factors (excluding gross receipts tax and regulatory fee):

Residential - 1.7983¢ per kWh  
Commercial - 1.9382¢ per kWh  
Industrial - 2.0233¢ per kWh

5. In this Application, DEC proposes base fuel and fuel-related costs factors (excluding gross receipts tax and regulatory fee) of:

Residential - 1.7943¢ per kWh  
Commercial - 1.9529¢ per kWh  
Industrial - 1.9313¢ per kWh

The base fuel and fuel-related cost factors should be adjusted for the Experience Modification Factor ("EMF") by an increment/(decrement) (excluding gross receipts tax and regulatory fee) of:

Residential - 0.1108¢ per kWh

Commercial - 0.0632¢ per kWh  
Industrial - 0.1476¢ per kWh

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

Residential - 1.9051¢ per kWh  
Commercial - 2.0161¢ per kWh  
Industrial - 2.0789¢ per kWh

The new fuel factors would have an effective date of September 1, 2019.

6. The information and data required to be filed by NCUC Rule R8-55 is contained in the testimony and exhibits of Eric S. Grant, Regis T. Repko, Kevin Y. Houston, Stephen D. Capps, and Kimberly McGee, 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 weighted average nuclear capacity factor (90.21%) and projected period sales and the methodology used for fuel costs in DEC's last general rate case. These base fuel and fuel-related costs factors are:

	<u>NERC Average</u>	<u>Last General Rate Case</u>
Residential -	1.9519¢ per kWh	1.9212¢ per kWh
Commercial -	2.0501¢ per kWh	2.0300¢ per kWh
Industrial -	2.1032¢ per kWh	2.0917¢ per kWh



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

Residential - 1.9051¢ per kWh

Commercial - 2.0161¢ per kWh

Industrial - 2.0789¢ per kWh

Respectfully submitted this 26<sup>th</sup> day of February, 2019.

By: 

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ATTORNEYS FOR DUKE ENERGY CAROLINAS, LLC

STATE OF NORTH CAROLINA )

COUNTY OF MECKLENBURG )

VERIFICATION

Kimberly McGee, being first duly sworn, deposes and says:

That she is RATES MANAGER for DUKE ENERGY CAROLINAS, LLC,  
applicant in the above-titled action; 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.

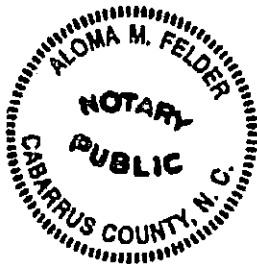
Kimberly McGee

Kimberly McGee

Sworn to and subscribed before  
me this the 22<sup>nd</sup> day of February, 2019.

Aloma M. Felder  
Notary Public Aloma M. Felder

My Commission expires: July 21, 2020



DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Summary Comparison of Fuel and Fuel Related Cost Factors  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 1

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
<b><u>Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)</u></b>						
1	Approved Fuel and Fuel Related Costs Factors	Input	1.7003	1.8314	1.8020	1.7769
2	EMF Increment	Input	0.0980	0.1068	0.2213	0.1290
3	EMF Interest Decrement cents/kWh	Input	0.0000	0.0000	0.0000	0.0000
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	1.7983	1.9382	2.0233	1.9059
<b><u>Fuel and Fuel Related Cost Factors Required by Rule R8-55</u></b>						
5	Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales	Exh 2 Sch 2 pg 2	1.9212	2.0300	2.0917	2.0045
6	NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales	Exh 2 Sch 3 pg 2	1.9519	2.0501	2.1032	2.0261
<b><u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%</u></b>						
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.7460	1.9278	1.9105	1.8574
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0483	0.0251	0.0208	0.0327
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	1.7943	1.9529	1.9313	1.8901
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1108	0.0632	0.1476	0.0994
11	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.0000	0.0000	0.0000	0.0000
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	1.9051	2.0161	2.0789	1.9895

Note: Fuel factors exclude regulatory fee

Jun 27 2019

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 1  
Page 1 of 3

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Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Workpaper 3 & 4	18,355,203	3.1057	570,050,837
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9			24,959,649
5	Total Fossil	Sum	39,176,820		1,098,194,572
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,785,509		1,455,692,040
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum Lines 10-12	83,018,229		1,346,517,369
14	Purchased Power	Workpaper 3 & 4	9,280,339	3.1771	294,841,746
15	JDA Savings Shared	Workpaper 5			19,972,407
16	Total Purchased Power		9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568	1.8000	1,661,331,522
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)	2.4698	(16,986,301)
19	Line losses and Company use	Line 21-Line 17-Line 18	(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,644,345,221
21	Projected System MWh Sales for Fuel Factor	Workpaper 7	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.8848

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 1  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7	21,397,068	23,381,644	12,939,285	57,717,997
<u>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</u>						<u>Amount</u>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<u>Summary of Total Rate by Class</u>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.7460	1.9278	1.9105	1.8574
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.7943	1.9529	1.9313	1.8901
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1108	0.0632	0.1476	0.0994
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	1.9051	2.0161	2.0789	1.9895

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 1  
Page 3 of 3

Line #	Rate Class	Projected Billing Period MWh Sales A	Annual Revenue at Current rates B	Allocate Fuel Costs Increase/(Decrease) to Customer Class C	Increase/(Decrease) as % of Annual Revenue at Current Rates D	Total Fuel Rate Increase/(Decrease) E If D=0 then 0 If not then (C*100)/(A*1000)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 F	Proposed Total Fuel Rate (including Capacity and EMF) G
		Workpaper 7	Workpaper 8	Line 25 as a % of Column B	C / B		McGee Exhibit 1	E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 22,857,098	1.05%	0.1068	1.7983	1.9051
2	General Service/Lighting	23,381,644	1,738,716,194	18,202,843	1.05%	0.0779	1.9382	2.0161
3	Industrial	12,939,285	687,001,167	7,192,304	1.05%	0.0556	2.0233	2.0789
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 48,252,245	1.05%			

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7	\$ 1,648,542,239
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	28,169,738
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,620,372,501
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7	87,243,844
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
10	Allocation %	Line 9 / Line 8	66.16%
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,072,038,447
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 1, Page 2	18,884,001
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,090,922,448
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.8901
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.0994
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000
18	Total Proposed Composite Fuel Rate	Sum	1.9895

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000
22	Total Current Composite Fuel Rate	Sum	1.9059
23	Increase/(Decrease) In Composite Fuel rate cents/kWh	Line 18 - Line 22	0.0836
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 48,252,245

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Fuel and Fuel Related Cost Factors Using:  
 Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

McGee Exhibit 2  
 Schedule 2  
 Page 1 of 3

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Calculated	19,630,442	3.1057	609,655,475
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,452,059		1,137,799,210
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation		184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	100,060,748		1,495,296,678
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum	84,293,468		1,386,122,007
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	93,573,807		1,700,936,160
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,683,949,859
21	Normalized Test Period MWh Sales	Exhibit 4, Workpaper 7a	88,519,083		88,519,083
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9024

DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Fuel and Fuel Related Cost Factors Using:  
 Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

McGee Exhibit 2  
 Schedule 2  
 Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Normalized Test Period MWh Sales	Exhibit 4	22,043,791	23,487,580	12,454,944	57,986,315
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0468	0.0250	0.0216	0.0326
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.7636	1.9418	1.9225	1.8725
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0468	0.0250	0.0216	0.0326
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8104	1.9668	1.9441	1.9051
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1108	0.0632	0.1476	0.0994
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 2 Page 3	1.9212	2.0300	2.0917	2.0045

Note: Rounding differences may occur



DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 2  
Page 3 of 3

Line #	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current Rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/(Decrease) as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (Including Capacity and EMF) E-7, Sub 1163	Proposed Total Fuel Rate (Including Capacity and EMF)
		A	B	C	D	E	F	G
		Exhibit 4	Worksheet 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential	22,043,791	\$ 2,183,285,633	\$ 27,083,575	1.24%	0.1229	1.7983	1.9212
2	General Service/Lighting	23,487,580	\$ 1,738,716,194	21,568,708	1.24%	0.0918	1.9382	2.0300
3	Industrial	12,454,944	\$ 687,001,167	8,522,223	1.24%	0.0684	2.0233	2.0917
4	NC Retail	57,986,315	\$ 4,609,002,994	\$ 57,174,506				
<b>Total Proposed Composite Fuel Rate:</b>								
5	Total Fuel Costs for Allocation	Worksheet 7a	\$ 1,688,146,877					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	28,169,738					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,659,977,139					
8	Normalized Test Period System MWh Sales for Fuel Factor	Worksheet 7a	88,648,222					
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	57,986,315					
10	Allocation %	Line 9 / Line 8	65.41%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,085,791,046					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 2, Page 2	18,884,001					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,104,675,048					
14	NC Retail Normalized Test Period MWh Sales	Line 4	57,986,315					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9051					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.0994					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.0045					
<b>Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</b>								
19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769					
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290					
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.9059					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.0986					
24	NC Retail Normalized Test Period MWh Sales	Exhibit 4	57,986,315					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 57,174,506					

Note: Rounding differences may occur

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**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales**  
**Test Period Ended December 31, 2018**  
**Billing Period September 2019 - August 2020**  
**Docket E-7, Sub 1190**

**McGee Exhibit 2**  
**Schedule 3**  
**Page 1 of 3**

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 2	56,739,499	0.6115	346,981,926
2	Coal	Calculated	19,636,789	3.1057	609,852,590
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,458,406		1,137,996,325
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,347,563		1,484,978,251
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Calculated	(14,450,934)		(88,383,179)
13	Net Generation	Sum	83,018,229		1,378,482,097
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568		1,693,296,250
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,676,309,949
21	Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9214

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 3  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7b	21,397,068	23,381,644	12,939,285	57,717,997
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				\$ 14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.7928	1.9618	1.9348	1.8940
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8411	1.9869	1.9556	1.9267
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1108	0.0632	0.1476	0.0994
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	1.9519	2.0501	2.1032	2.0261

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 2  
Schedule 3  
Page 3 of 3

Line #	Rate Class	Projected Billing Period MWh Sales A	Annual Revenue at Current rates B	Allocate Fuel Costs Increase/(Decrease) to Customer Class C	Increase/Decrease as % of Annual Revenue at Current Rates C / B = D	Total Fuel Rate Increase/(Decrease) E If D=0 then 0 if not then (C*100)/(A*1000)	Current Total Fuel Rate (Including Capacity and EMF) E-7, Sub 1163 F McGee Exhibit 1	Proposed Total Fuel Rate (Including Capacity and EMF) G E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 32,863,914	1.51%	0.1536	1.7983	1.9519
2	General Service/Lighting	23,381,644	\$ 1,738,716,194	\$ 26,172,031	1.51%	0.1119	1.9382	2.0501
3	Industrial	12,939,285	\$ 687,001,167	\$ 10,341,087	1.51%	0.0799	2.0233	2.1032
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 69,377,032				
<b>Total Proposed Composite Fuel Rate:</b>								
5	Total Fuel Costs for Allocation	Workpaper 7b	\$ 1,680,506,966					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	28,169,738					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,652,337,228					
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844					
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
10	Allocation %	Line 9 / Line 8	66.16%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,093,186,310					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 3, Page 2	18,884,001					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,112,070,311					
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9267					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.0994					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.0261					
<b>Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</b>								
19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769					
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290					
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.9059					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1202					
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 69,377,032					

Note: Rounding differences may occur

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Proposed Composite  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 3  
Page 1 of 4

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Line No.	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018			5,733,820	\$ 70,210,460
2	February			5,031,181	\$ (21,289,748)
3	March(1)			4,190,094	\$ 4,767,793
4	April(1)			4,416,566	\$ (13,763,436)
5	May			4,252,750	\$ 6,136,829
6	June(1)			5,245,689	\$ 6,622,242
7	July(1)			5,639,361	\$ 14,497,484
8	August			5,409,821	\$ 13,507,110
9	September			6,212,764	\$ (8,995,949)
10	October			4,141,212	\$ 11,156,943
11	November			4,314,713	\$ 11,789,339
12	December			4,892,732	\$ 16,666,116
13	<b>Total Test Period</b>			<b>59,480,703</b>	<b>\$ 111,305,183</b>
14	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 53,688,503
15	Include Under Recovery related to Coal Inventory Rider				\$ 37,667
16	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 57,654,346</b>
17	NC Retail Normalized Test Period MWh Sales			Exhibit 4	57,986,315
18	Experience Modification Increment (Decrement) cents/kWh				0.0994

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 16.

Rounding differences may occur

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Residential  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 3  
Page 2 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	2.2454	1.7919	2,747,953	\$ 12,463,615
2	February	1.2214	1.7919	2,101,525	\$ (11,989,284)
3	March <sup>(1)</sup>	1.8936	1.7919	1,546,024	\$ 1,587,096
4	April <sup>(1)</sup>	1.5682	1.7919	1,557,073	\$ (3,496,659)
5	May	2.2261	1.7919	1,361,386	\$ 5,910,833
6	June <sup>(1)</sup>	1.9042	1.7919	1,940,879	\$ 2,162,126
7	July <sup>(1)</sup>	1.9028	1.7919	2,227,922	\$ 2,375,059
8	August	1.9776	1.7885	2,050,040	\$ 3,875,805
9	September	1.7474	1.7894	2,200,376	\$ (925,298)
10	October	2.0726	1.7983	1,554,551	\$ 4,264,193
11	November	2.3435	1.7983	1,436,836	\$ 7,833,590
12	December	1.9167	1.7983	2,038,462	\$ 2,413,589
13	<b>Total Test Period</b>			<b>22,763,029</b>	<b>\$ 26,474,665</b>
14	Test Period Wtd Avg. ¢/kWh	1.9096	1.7928		
15	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 2,061,427
16	Include Under Recovery related to Coal Inventory Rider				\$ 14,415
17	<b>Adjusted (Over)/Under Recovery</b>				<b>\$ 24,427,653</b>
18	NC Retail Normalized Test Period MWh Sales			Exhibit 4	22,043,791
19	Experience Modification Increment (Decrement) cents/kWh				0.1108

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.

Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - GS/Lighting  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 3  
Page 3 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	3.5376	1.9253	2,053,224	\$ 33,104,497
2	February	1.5865	1.9253	1,899,154	\$ (6,434,005)
3	March <sup>(1)</sup>	2.0122	1.9253	1,709,988	\$ 1,503,768
4	April <sup>(1)</sup>	1.5762	1.9253	1,819,014	\$ (6,335,002)
5	May	1.9140	1.9253	1,860,965	\$ (210,465)
6	June <sup>(1)</sup>	1.9786	1.9253	2,190,371	\$ 1,145,088
7	July <sup>(1)</sup>	2.1543	1.9253	2,291,796	\$ 5,295,453
8	August	2.1026	1.9219	2,244,902	\$ 4,054,944
9	September	1.6846	1.9256	2,660,685	\$ (6,412,545)
10	October	2.1707	1.9382	1,727,851	\$ 4,018,244
11	November	2.1580	1.9382	1,824,017	\$ 4,009,350
12	December	2.4310	1.9382	1,880,041	\$ 9,264,795
13	<b>Total Test Period</b>			<b>24,162,007</b>	<b>\$ 43,004,122</b>
14	Test Period Wtd Avg. ¢/kWh	2.1057	1.9279		
15	Adjustment remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 28,174,260
16	Include Under Recovery related to Coal Inventory Rider				\$ 15,301
17	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 14,845,163</b>
18	NC Retail Normalized Test Period MWh Sales			Exhibit 4	23,487,580
19	Experience Modification Increment (Decrement) cents/kWh				0.0632

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d){3} but deducted from total (O)/ U on Line 17.

Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Industrial  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 3  
Page 4 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	4.6719	2.0297	932,643	\$ 24,642,348
2	February	1.7515	2.0297	1,030,502	\$ (2,866,460)
3	March <sup>(1)</sup>	2.2081	2.0297	934,082	\$ 1,676,929
4	April <sup>(1)</sup>	1.6509	2.0297	1,040,479	\$ (3,931,775)
5	May	2.0721	2.0297	1,030,399	\$ 436,461
6	June <sup>(1)</sup>	2.3283	2.0297	1,114,438	\$ 3,315,028
7	July <sup>(1)</sup>	2.6319	2.0297	1,119,643	\$ 6,826,972
8	August	2.5265	2.0263	1,114,879	\$ 5,576,360
9	September	1.8991	2.0218	1,351,703	\$ (1,658,106)
10	October	2.3580	2.0233	858,810	\$ 2,874,506
11	November	2.0182	2.0233	1,053,860	\$ (53,600)
12	December	2.5353	2.0233	974,229	\$ 4,987,733
13	Total Test Period			12,555,667	\$ 41,826,395
14	Test Period Wtd Avg. ¢/kWh	2.3595	2.0271		
15	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 23,452,816
16	Include Under Recovery related to Coal Inventory Rider				\$ 7,951
17	Adjusted (Over)/ Under Recovery				\$ 18,381,529
18	NC Retail Normalized Test Period MWh Sales			Exhibit 4	12,454,944
19	Experience Modification Increment (Decrement) cents/KWh				0.1476

Notes:

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.

Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Sales, Fuel Revenue, Fuel Expense and System Peak  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

McGee Exhibit 4

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Line #	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
1	Test Period MWh Sales (excluding inter system sales)	Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC retail)	90,487,628	59,480,703	22,763,029	24,162,007	12,555,667
2	Customer Growth MWh Adjustment	Workpaper 13 Pg 1	309,143	155,235	188,587	(37,644)	4,292
3	Weather MWh Adjustment	Workpaper 12	(2,277,688)	(1,649,623)	(907,825)	(636,783)	(105,015)
4	Total Normalized MWh Sales	Sum	88,519,083	57,986,315	22,043,791	23,487,580	12,454,944
5	Test Period Fuel and Fuel Related Revenue *		\$ 1,691,073,964	\$ 1,128,424,268			
6	Test Period Fuel and Fuel Related Expense *		\$ 1,852,256,576	\$ 1,239,729,451			
7	Test Period Unadjusted (Over)/Under Recovery		\$ 161,182,612	\$ 111,305,183			
			<u>Winter Coincidental Peak (CP) kW</u>				
8	Total System Peak		18,871,786				
9	NC Retail Peak		12,650,981				
10	NC Residential Peak		6,917,677				
11	NC General Service/Lighting Peak		3,929,002				
12	NC Industrial Peak		1,804,302				

- \* 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.

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Nuclear Capacity Ratings**  
**Test Period Ended December 31, 2018**  
**Billing Period September 2019 - August 2020**  
**Docket E-7, Sub 1190**

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Unit	Rate Case		Proposed Capacity Rating MW
	Docket E-7, Sub 1146	Fuel Docket E-7, Sub 1163	
Oconee Unit 1	847	847.0	847.0
Oconee Unit 2	848	848.0	848.0
Oconee Unit 3	859	859.0	859.0
McGuire Unit 1	1,158	1158.0	1158.0
McGuire Unit 2	1,158	1157.6	1157.6
Catawba Unit 1	1,160	1160.1	1160.1
Catawba Unit 2	1,150	1150.1	1150.1
Total Company	7,180	7,179.8	7,179.8

McGee Exhibit 6

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DECEMBER 2018 MONTHLY FUEL FILING

DUKE ENERGY CAROLINAS  
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1161

Line No.	December 2018	12 Months Ended December 2018
1 Fuel and fuel-related costs	\$ 167,457,560	\$ 1,885,269,344
MWH sales:		
2 Total system sales	7,718,637	92,433,072
3 Less intersystem sales	228,210	1,945,444
4 Total sales less intersystem sales	7,490,427	90,487,628
5 Total fuel and fuel-related costs (¢/KWH) (line 1/line 4)	2.2356	2.0835
6 Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 2a Total)	1.8969	
Generation Mix (MWH):		
Fossil (by primary fuel type):		
7 Coal	1,366,724	22,653,740
8 Fuel Oil	12,042	232,515
9 Natural Gas - Combined Cycle	1,059,332	13,695,555
10 Natural Gas - Combustion Turbine	42,178	2,550,671
11 Natural Gas - Steam	127,536	187,574
12 Biogas	3,259	30,204
13 Total fossil	2,611,071	39,350,259
14 Nuclear 100%	4,981,169	59,936,028
15 Hydro - Conventional	368,610	2,877,050
16 Hydro - Pumped storage	(44,946)	(529,226)
17 Total hydro	323,664	2,347,824
18 Solar Distributed Generation	5,768	130,018
19 Total MWH generation	7,921,672	101,764,129
20 Less joint owners' portion - Nuclear	1,147,290	15,165,371
21 Less joint owners' portion - Combined Cycle	27,377	465,202
22 Adjusted total MWH generation	6,747,005	86,133,556

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

DUKE ENERGY CAROLINAS  
DETAILS OF FUEL AND FUEL-RELATED COSTS

Docket No. E-7, Sub 1161

	December 2018	12 Months Ended December 2018
Fuel and fuel-related costs:		
0501110 coal consumed - steam	\$ 46,847,568	\$ 675,888,074
0501222-0501223 biomass/test fuel consumed	-	-
0501310 fuel oil consumed - steam	1,223,578	8,586,389
0501330 fuel oil light-off - steam	593,669	7,287,851
Total Steam Generation - Account 501	<u>48,664,815</u>	<u>691,762,314</u>
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	23,069,842	275,311,826
Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	2,272,971	98,161,049
0547100 natural gas consumed - Steam	5,696,114	8,633,545
0547101 natural gas consumed - Combined Cycle	31,773,516	373,047,230
0547106 biogas consumed - Combined Cycle	175,961	1,523,560
0547200 fuel oil consumed - Combustion Turbine	57,020	25,830,495
Total Other Generation - Account 547	<u>39,975,582</u>	<u>507,195,879</u>
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,549,134	27,110,200
Total Reagents	<u>1,549,134</u>	<u>27,110,200</u>
By-products		
Net proceeds from sale of by-products	583,525	6,085,203
Total By-products	<u>583,525</u>	<u>6,085,203</u>
Total Fossil and Nuclear Fuel Expenses Included in Base Fuel Component	113,842,898	1,507,465,422
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	211,474	10,514,290
Capacity component of purchased power (renewables)	594,915	13,300,661
Capacity component of purchased power (PURPA)	159,399	6,541,261
Fuel and fuel-related component of purchased power	59,686,689	434,709,945
Total Purchased Power and Net Interchange - Account 555	<u>60,652,477</u>	<u>465,066,157</u>
Less:		
Fuel and fuel-related costs recovered through intersystem sales	6,944,585	86,336,253
Fuel in loss compensation	92,474	925,224
Solar integration charge revenue	758	758
Total Fuel Credits - Accounts 447 /456	<u>7,037,817</u>	<u>87,262,235</u>
Total Fuel and Fuel-related Costs	<u>\$ 167,457,560</u>	<u>\$ 1,885,269,344</u>

Notes: Detail amounts may not add to totals shown due to rounding.  
Report reflects net ownership costs of jointly owned facilities.

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

**December 2018**

Purchased Power	Total	Capacity	Non-capacity			
	\$	\$	mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
<b>Economic</b>						
Cherokee County Cogeneration Partners	\$ 1,287,426	\$ 211,474	27,369	\$ 946,407	\$ 129,545	
City of Kings Mountain	8,979	8,979	-	-	-	
DE Progress - Native Load Transfer	27,945,591	-	741,793	23,410,601	4,543,696	\$ (8,706)
DE Progress - Native Load Transfer Benefit	1,156,134	-	-	1,156,134	-	
DE Progress - Fees	(156,964)	-	-	-	(156,964)	
Haywood Electric - Economic	40,903	20,630	336	12,387	7,906	
Macquarie Energy, LLC	6,826,931	-	146,439	4,164,428	2,662,503	
NCEMC - Economic	115,200	-	3,600	70,272	44,928	
NCMPA Instantaneous - Economic	1,813,810	-	53,310	1,088,467	725,343	
NTE Carolinas LLC	3,232,610	-	78,830	1,971,892	1,260,718	
Piedmont Municipal Power Agency	307,201	-	10,960	184,355	122,846	
PJM Interconnection, LLC	11,214,935	-	313,334	6,841,110	4,373,825	
Southern Company Services, Inc.	250,370	-	9,167	152,726	97,644	
Tennessee Valley Authority	96,400	-	2,600	58,804	37,596	
Town of Dallas	584	584	-	-	-	
Town of Forest City	19,856	19,856	-	-	-	
	<b>\$ 54,159,966</b>	<b>\$ 261,523</b>	<b>1,387,738</b>	<b>\$ 40,057,563</b>	<b>\$ 13,849,566</b>	<b>\$ (8,706)</b>
<b>Renewable Energy</b>						
REPS	\$ 4,406,020	\$ 594,802	77,027	\$ -	\$ 3,811,118	\$ -
DERP - Purchased Power	149	13	3	-	136	-
	<b>\$ 4,406,169</b>	<b>\$ 594,815</b>	<b>77,030</b>	<b>\$ -</b>	<b>\$ 3,811,254</b>	<b>\$ -</b>
<b>HB589 PURPA Purchases</b>						
Qualifying Facilities	1,936,441	159,399	37,040	-	1,712,356	64,686
	<b>\$ 1,936,441</b>	<b>\$ 159,399</b>	<b>37,040</b>	<b>\$ -</b>	<b>\$ 1,712,356</b>	<b>\$ 64,686</b>
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 1,244,696	\$ 724,668	26,268	\$ 317,217	\$ -	\$ 202,811
Haywood Electric	351,238	152,148	7,201	121,445	-	77,645
Macquarie Energy, LLC	957,341	-	12,433	583,978	-	373,363
NCEMC - Other	4,398	4,398	-	-	-	-
NCMPA	155,400	-	1,110	94,794	-	60,606
Piedmont Electric Membership Corp.	592,764	346,426	11,904	150,266	-	96,072
Generation Imbalance	1,078,303	-	8,735	242,385	-	835,918
Energy Imbalance - Purchases	(277,960)	-	(11,956)	(169,556)	-	(108,404)
Energy Imbalance - Sales	(269,174)	-	-	(269,534)	-	360
Other Purchases	648	-	19	-	-	648
	<b>\$ 3,837,654</b>	<b>\$ 1,227,640</b>	<b>55,714</b>	<b>\$ 1,070,995</b>	<b>\$ -</b>	<b>\$ 1,539,019</b>
<b>Total Purchased Power</b>	<b>\$ 64,340,230</b>	<b>\$ 2,243,477</b>	<b>1,557,522</b>	<b>\$ 41,128,558</b>	<b>\$ 19,373,186</b>	<b>\$ 1,584,999</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	6,629,878	-	579,425	3,870,366	-	2,759,512
WS Lee Joint Owner	1,406,837	-	43,619	1,229,697	-	177,140
Total Interchanges In	8,036,714	-	623,044	5,100,063	-	2,936,651
						(1)
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(7,985,890)	(134,209)	(695,363)	(4,647,804)	-	(3,203,877)
Catawba- Not Negative Generation	(66,943)	-	(2,964)	(51,150)	-	(15,793)
WS Lee Joint Owner	(1,402,174)	-	(42,514)	(1,216,174)	-	(186,000)
Total Interchanges Out	(9,455,007)	(134,209)	(740,841)	(5,915,128)	-	(3,405,670)
<b>Not Purchases and Interchange Power</b>	<b>\$ 62,921,937</b>	<b>\$ 2,109,268</b>	<b>1,439,725</b>	<b>\$ 40,313,493</b>	<b>\$ 19,373,186</b>	<b>\$ 1,125,979</b>

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

**DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEW**

**DECEMBER 2018**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	\$ 19,312	-	475	\$ 16,530	\$ 2,782
SC Electric & Gas - Emergency	22,373	-	383	21,699	674
<b>Market Based:</b>					
NCMPA	110,344	\$ 87,568	392	22,919	(143)
PJM Interconnection, LLC.	69	-	-	-	69
SC Electric & Gas	2,050	-	-	-	2,050
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	287,133	-	-	287,133	-
DE Progress - Native Load Transfer	8,259,541	-	225,840	6,529,920	1,729,621
Generation Imbalance	76,917	-	1,120	66,384	10,533
BPM Transmission	(67,517)	-	-	-	(67,517)
<b>Total Intersystem Sales</b>	<b>\$ 8,710,222</b>	<b>\$ 87,568</b>	<b>228,210</b>	<b>\$ 6,944,585</b>	<b>\$ 1,678,069</b>

\* 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 CAROLINAS  
PURCHASED POWER AND INTERCHANGE  
SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended  
December 2018**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$
Economic	\$	\$				Not Fuel-related \$
Cherokee County Cogeneration Partners	\$ 31,713,488	\$ 10,514,290	538,248	\$ 18,602,696	\$ 2,598,502	
City of Kings Mountain	107,748	107,748	-	-	-	
DE Progress - Native Load Transfer	194,410,960	-	5,428,920	174,475,494	19,671,245	\$ 264,221
DE Progress - Native Load Transfer Benefit	13,751,828	-	-	13,751,828	-	
DE Progress - Fees	(1,093,167)	-	-	-	(1,093,167)	
EDF Trading North America, LLC	76,115	-	3,005	46,430	29,685	
Exelon Generation Company, LLC	118,087	-	4,060	72,034	46,053	
Haywood Electric - Economic	487,779	251,870	5,097	143,904	92,005	
Macquarie Energy, LLC	29,508,026	-	770,088	17,999,898	11,508,130	
Morgan Stanley Capital Group	24,639	-	1,112	15,152	9,687	
NCEMC	169,200	-	5,490	103,212	65,988	
NCMPA	4,490,834	-	71,519	3,053,238	1,437,596	
NCMPA Load Following Economic	16,007,553	-	506,485	10,121,981	5,885,572	
NTE Carolinas LLC	7,034,810	-	195,650	4,272,935	2,731,875	
Piedmont Municipal Power Agency	2,609,448	-	88,744	1,680,985	928,481	
PJM Interconnection, LLC	51,171,173	-	864,902	31,214,417	19,956,756	
Rainbow Energy Marketing Corporation	87,525	-	3,285	53,390	34,135	
South Carolina Electric & Gas Company	212,527	-	4,600	127,811	84,716	
Southern Company Services, Inc.	1,289,558	-	45,702	766,630	502,826	
Tennessee Valley Authority	1,603,241	-	30,841	977,977	625,264	
The Energy Authority	38,483	-	1,167	23,475	15,008	
Town of Dallas	7,008	7,008	-	-	-	
Town of Forest City	238,272	238,272	-	-	-	
	<u>\$ 354,035,331</u>	<u>\$ 11,119,188</u>	<u>8,564,915</u>	<u>\$ 277,523,485</u>	<u>\$ 65,128,437</u>	<u>\$ 264,221</u>
<b>Renewable Energy</b>						
REPS	\$ 62,977,408	\$ 13,300,096	976,170	\$ -	\$ 49,677,312	\$ -
DERP - Purchased Power	2,713	565	49	-	2,148	-
DERP - Net Metered Generation	43,550	7,964	15	-	-	35,586
	<u>\$ 63,023,671</u>	<u>\$ 13,308,625</u>	<u>\$ 976,235</u>	<u>\$ -</u>	<u>\$ 49,679,460</u>	<u>\$ 35,586</u>
<b>HB589 PURPA Purchases</b>						
Qualifying Facilities	33,208,999	6,541,261	549,098	\$ -	\$ 25,585,400	\$ 1,082,338
	<u>\$ 33,208,999</u>	<u>6,541,261</u>	<u>549,098</u>	<u>\$ -</u>	<u>\$ 25,585,400</u>	<u>\$ 1,082,338</u>
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 14,972,210	\$ 8,136,773	295,129	\$ 4,169,615	\$ -	\$ 2,665,822
Haywood Electric	4,208,307	1,935,370	80,218	1,385,271	-	885,666
Macquarie Energy, LLC	18,266,985	-	307,544	11,142,861	-	7,124,124
NCEMC - Other	647,276	52,776	6,570	362,645	-	231,855
NCMPA - Reliability	245,400	-	2,610	149,694	-	95,706
NTE Carolinas LLC	1,828,310	-	36,865	1,115,269	-	713,041
Piedmont Electric Membership Corp.	7,179,987	3,902,138	140,568	1,999,488	-	1,278,351
South Carolina Electric & Gas Company	131,734	-	1,400	80,358	-	51,376
Southern Company Services, Inc.	2,984,720	-	47,510	1,820,679	-	1,164,041
Generation Imbalance	3,782,664	-	82,265	1,893,961	-	1,888,703
Energy Imbalance - Purchases	2,199,378	-	25,123	1,350,748	-	848,628
Energy Imbalance - Sales	(1,765,005)	-	-	(6,529,253)	-	4,764,248
Other Purchases	12,518	-	352	-	-	12,518
	<u>\$ 54,692,482</u>	<u>\$ 14,027,057</u>	<u>1,026,152</u>	<u>\$ 18,941,336</u>	<u>\$ -</u>	<u>\$ 21,724,089</u>
<b>Total Purchased Power</b>	<b>\$ 504,950,483</b>	<b>\$ 44,996,131</b>	<b>11,116,400</b>	<b>\$ 286,464,821</b>	<b>\$ 140,393,297</b>	<b>\$ 23,106,234</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	91,135,514	-	7,642,809	56,961,998	-	34,173,518
WS Lee Joint Owner	7,725,713	-	271,306	6,611,033	-	1,114,680
Total Interchanges In	<u>98,861,227</u>	<u>-</u>	<u>7,914,116</u>	<u>63,573,032</u>	<u>-</u>	<u>35,288,195</u>
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(93,139,372)	(1,580,207)	(7,784,646)	(57,610,256)	-	(33,948,908)
Catawba - Net Negative Generation	(231,152)	-	(11,304)	(180,241)	-	(50,811)
WS Lee Joint Owner	(9,390,983)	-	(327,441)	(7,930,709)	-	(1,460,275)
Total Interchanges Out	<u>(102,761,507)</u>	<u>(1,580,207)</u>	<u>(8,123,391)</u>	<u>(65,721,205)</u>	<u>-</u>	<u>(35,460,095)</u>
<b>Net Purchases and Interchange Power</b>	<b>\$ 501,060,203</b>	<b>\$ 43,415,924</b>	<b>10,907,125</b>	<b>\$ 294,316,648</b>	<b>\$ 140,393,297</b>	<b>\$ 22,934,334</b>

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

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**DUKE ENERGY CAROLINAS**  
**INTERSYSTEM SALES\***  
**SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended**  
**DECEMBER 2018**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
DE Progress - Emergency	\$ 15,390	-	333	\$ 13,113	\$ 2,277
SC Public Service Authority - Emergency	2,315,135	\$ 224,000	7,527	2,007,790	83,345
SC Electric & Gas - Emergency	103,368	A - A	1,974	87,826	15,542
<b>Market Based:</b>					
Central Electric Power Cooperative, Inc.	2,793,800	B 2,793,800	B -	-	-
EDF Trading Company	2,600	-	50	1,976	624
Macquarie Energy, LLC	19,200	-	-	-	19,200
NCMPA	1,454,481	1,050,069	5,529	368,868	35,544
PJM Interconnection, LLC.	1,502,443	-	24,365	918,000	584,443
SC Electric & Gas	317,950	A - A	4,050	268,115	49,835
Tennessee Valley Authority	49,525	-	1,025	37,501	12,024
The Energy Authority	55,545	-	604	33,101	22,444
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	5,666,748	-	-	5,666,748	-
DE Progress - Native Load Transfer	78,027,793	-	1,883,308	74,808,327	3,219,466
Generation Imbalance	1,760,829	-	16,679	2,124,888	(364,059)
BPM Transmission	(245,056)	-	-	-	(245,056)
<b>Total Intersystem Sales</b>	<b>\$ 93,839,751</b>	<b>\$ 4,067,869</b>	<b>1,945,444</b>	<b>\$ 86,336,253</b>	<b>\$ 3,435,629</b>

\* Sales for resale other than native load priority.

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

**A** - Twelve months ended December 2018 includes a correction to reclassify market sales for the month of October 2018 as an emergency sale. The October 2018 sales were as follows: Total dollars = \$24,456, Non capacity MWH = 408, Non-capacity fuel dollars = \$20,096, and Non-capacity non-fuel dollars = \$3,550.

**B** - Twelve months ended December 2018 includes a correction to include market capacity sales for the period January 2018 - October 2018. Market capacity sales each month were as follows: Total dollars = \$279,380, and capacity dollars= \$279,380. Total market capacity sales dollars for the period January 2018 - October 2018 = \$2,793,800.

**Duke Energy Carolinas**  
**(Over) / Under Recovery of Fuel Costs**  
**December 2018**

Line No.		Residential	Commercial	Industrial	Total
1	Actual System kWh sales	Input			7,490,426,895
2	DERP Net Metered kWh generation	Input			10,412,429
3	Adjusted System kWh sales	L1 + L2			7,500,839,324
4	N.C. Retail kWh sales	Input	2,038,461,729	1,880,040,961	974,229,470
5	NC kWh sales % of actual system kWh sales	L4 T / L1			65.32%
6	NC kWh sales % of adjusted system kWh sales	L4 T / L3			65.23%
7	Approved fuel and fuel-related rates (\$/kWh)				
7a	Billed rates by class (\$/kWh)	Input Annually	1.7983	1.9382	2.0233
7b	Billed fuel expense	L7a * L4 / 100	\$36,657,657	\$36,438,954	\$19,711,585
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (\$/kWh)				
8a	Docket E-7, Sub 1163 allocation factor	Input	35.64%	41.77%	22.59%
8b	System incurred expense	Input			\$166,830,104
8c	Incurred base fuel and fuel-related expense	L8b * L6 * 8a	\$38,786,219	\$45,458,159	\$24,577,446
8d	Incurred base fuel rates by class (\$/kWh)	L8c / L4 * 100	1.9027	2.4179	2.5228
9	Incurred renewable purchased power capacity rates by class (\$/kWh)				
9a	NC retail production plant %	Input			67.56%
9b	Production plant allocation factors	Input	43.68%	37.64%	18.68%
9c	System incurred expense	Input			\$965,788
9d	Incurred renewable capacity expense	L9a * L9b * 9c	\$285,027	\$245,590	\$121,872
9e	Incurred renewable capacity rates by class (\$/kWh)	(L9a * L9c) * L9b / L4 * 100	0.0140	0.0131	0.0125
10	Total incurred rates by class (\$/kWh)	L8d + L9e	1.9167	2.4310	2.5353
11	Difference in \$/kWh (incurred - billed)	L7c - L10	0.1184	0.4928	0.5120
12	(Over) / under recovery [See footnote]	(L4 * L11) / 100	\$2,413,589	\$9,264,795	\$4,987,733
13	Prior period adjustments	Input			
14	Total (over) / under recovery [See footnote]	L12 + L13	\$2,413,589	\$9,264,795	\$4,987,733
15	Total system incurred expense	L8b + L9c			\$167,795,892
16	Less: Jurisdictional allocation adjustment(s)	Input			338,332
17	Total Fuel and Fuel-related Costs per Schedule 2	L15 + L16			\$167,457,560

18 (Over) / under recovery for each month of the current calendar year [See footnote]

		(Over) / Under Recovery				
		Total To Date	Residential	Commercial	Industrial	Total Company
Year 2018						
	January	\$70,210,459	\$12,463,615	\$33,104,497	\$24,642,348	\$70,210,459
	February	48,920,711	(\$11,989,284)	(\$6,434,005)	(\$2,866,460)	(21,289,748)
J/1	March	53,688,504	\$1,587,096	\$1,503,768	\$1,676,929	4,767,793
J/1	April	39,952,067	(\$3,469,659)	(\$6,335,002)	(\$3,931,775)	(13,736,437)
	May	46,088,897	\$5,910,833	(\$210,465)	\$438,461	6,136,830
	June	52,711,139	\$2,162,126	\$1,145,088	\$3,315,028	6,622,242
J/2	July	67,208,623	\$2,375,059	\$5,295,453	\$6,826,972	14,497,484
	August	80,715,732	\$3,875,805	\$4,054,944	\$5,576,360	13,507,109
J/2	September	71,719,783	(\$925,298)	(\$6,412,545)	(\$1,658,106)	(8,995,949)
J/2	October	82,876,726	\$4,264,193	\$4,018,244	\$2,874,506	11,156,943
	November	\$94,666,066	\$7,833,590	\$4,009,350	(\$53,600)	\$11,789,340
	December	\$111,332,182	\$2,413,589	\$9,264,795	\$4,987,733	\$16,666,116
			\$26,501,665	\$43,004,122	\$41,826,396	\$111,332,182

Notes:

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

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

Under collections, or regulatory assets, are shown as positive amounts.

\_/1 Includes prior period adjustments.

\_/2 Reflects a prorated rate and prorated allocation factor for periods in which the approved rates changed.

**DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018**

Description	Allen Steam	Bellevue Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Cost of Fuel Purchased (\$)</b>																
Coal	\$49,833	\$17,907,637			\$3,548,228					\$22,079,739					\$49,885,637	\$657,498,215
Oil	143,133	1,082,066			273,156										1,459,268	48,634,501
Gas - CC															32,684,994	384,692,208
Gas - CT			\$13,103,055			\$12,923,682		104,195	\$110,569			\$158,525		\$1,899,682	98,161,049	8,161,049
Gas - Steam					5,695,205										5,695,114	8,633,545
BioGas						361,043									361,043	3,468,205
<b>Total</b>	<b>\$183,066</b>	<b>\$18,990,604</b>	<b>\$13,103,055</b>		<b>\$14,516,590</b>	<b>\$13,284,725</b>	<b>\$6,858,267</b>	<b>\$105,103</b>	<b>\$110,569</b>	<b>\$22,079,739</b>		<b>\$158,525</b>		<b>\$1,899,682</b>	<b>\$91,293,914</b>	<b>\$1,201,085,721</b>
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>																
Coal		555.02			687.75					399.01					485.71	324.71
Oil		1,321.84			692.52										221.68	1,358.98
Gas - CC			442.19		442.08		455.27								442.14	392.80
Gas - CT					445.73			532.70	467.48			510.56		457.22	464.11	343.97
Gas - Steam						1,577.30										410.59
BioGas					567.03	450.90			467.48	399.01					1,577.30	1,603.31
<b>Weighted Average</b>	<b>1,782.98</b>	<b>492.94</b>	<b>442.19</b>		<b>567.03</b>	<b>450.90</b>	<b>455.27</b>	<b>532.60</b>	<b>467.48</b>	<b>399.01</b>		<b>510.56</b>		<b>457.22</b>	<b>489.65</b>	<b>358.86</b>
<b>Cost of Fuel Burned (\$)</b>																
Coal	\$741,089	\$19,525,109			\$12,868,384					\$15,632,987					\$48,847,568	\$675,886,074
Oil - Steam/CT	163,523	1,219,227			286,271		25,472		\$25,788	148,226					1,874,266	41,704,735
Gas - CC			\$13,103,055			\$12,923,682		\$6,858,267				\$158,525		\$1,899,682	32,684,994	384,692,206
Gas - CT					5,695,205				110,569						2,272,971	98,161,049
Gas - Steam															5,695,114	8,633,545
BioGas						361,043									361,043	3,468,205
<b>Total</b>	<b>\$904,613</b>	<b>\$20,744,336</b>	<b>\$13,103,055</b>		<b>\$18,869,869</b>	<b>\$13,284,725</b>	<b>\$6,858,267</b>	<b>\$130,576</b>	<b>\$136,356</b>	<b>\$13,041,212</b>	<b>\$10,990,838</b>	<b>\$158,525</b>	<b>\$10,470,715</b>	<b>\$1,899,682</b>	<b>\$119,754,985</b>	<b>\$1,583,385,062</b>
<b>Average Cost of Fuel Burned (¢/MBTU)</b>																
Coal	359.55	352.99			354.20					341.94					350.11	315.40
Oil - Steam/CT	1,564.97	1,487.41			1,505.97		495.27		1,521.44	1,620.84					1,530.31	1,604.54
Gas - CC			442.19		442.08										442.14	392.80
Gas - CT					445.73			532.70	467.48			510.56		457.22	464.11	343.97
Gas - Steam						1,577.30										410.59
BioGas															1,577.30	1,603.31
<b>Nuclear</b>	<b>417.71</b>	<b>369.55</b>	<b>442.19</b>	<b>58.63</b>	<b>382.33</b>	<b>450.90</b>	<b>455.27</b>	<b>654.77</b>	<b>537.96</b>	<b>344.86</b>	<b>62.46</b>	<b>510.56</b>	<b>59.28</b>	<b>457.22</b>	<b>165.17</b>	<b>168.76</b>
<b>Weighted Average</b>	<b>2.92</b>	<b>3.41</b>	<b>442.19</b>	<b>58.63</b>	<b>382.33</b>	<b>450.90</b>	<b>455.27</b>	<b>654.77</b>	<b>537.96</b>	<b>344.86</b>	<b>62.46</b>	<b>510.56</b>	<b>59.28</b>	<b>457.22</b>	<b>165.17</b>	<b>168.76</b>
<b>Average Cost of Generation (¢/kWh)</b>																
Coal	2.92	3.41			3.52			1,287.30	632.18	3.41					3.43	2.98
Oil - Steam/CT	12.43	15.65			14.52			128.73	63.22	16.41					15.56	17.94
Gas - CC			3.06		3.11		3.18								3.10	2.81
Gas - CT					4.45			5.57	10.88			8.08		5.09	5.39	3.85
Gas - Steam						11.08									4.47	4.50
BioGas															11.08	11.48
<b>Nuclear</b>	<b>3.39</b>	<b>3.57</b>	<b>3.06</b>	<b>0.59</b>	<b>3.80</b>	<b>3.17</b>	<b>3.18</b>	<b>9.16</b>	<b>12.90</b>	<b>3.44</b>	<b>0.62</b>	<b>8.08</b>	<b>0.59</b>	<b>5.09</b>	<b>0.60</b>	<b>0.62</b>
<b>Weighted Average</b>	<b>3.39</b>	<b>3.57</b>	<b>3.06</b>	<b>0.59</b>	<b>3.80</b>	<b>3.17</b>	<b>3.18</b>	<b>9.16</b>	<b>12.90</b>	<b>3.44</b>	<b>0.62</b>	<b>8.08</b>	<b>0.59</b>	<b>5.09</b>	<b>0.60</b>	<b>0.62</b>
<b>Burned MBTU's</b>																
Coal	206,117	5,531,427			3,638,779					4,004,460					13,380,783	214,294,473
Oil - Steam/CT	10,449	81,870			19,009		208		1,685	9,145					122,476	2,593,178
Gas - CC			2,963,222			2,923,367		1,506,423							7,393,012	97,936,802
Gas - CT									23,652			31,049		415,485	489,746	28,537,792
Gas - Steam					1,277,737		174								1,277,911	2,102,783
BioGas						22,890									22,890	216,180
<b>Nuclear</b>	<b>216,566</b>	<b>5,613,337</b>	<b>2,963,222</b>	<b>14,252,377</b>	<b>4,935,325</b>	<b>2,946,257</b>	<b>1,506,423</b>	<b>18,942</b>	<b>25,347</b>	<b>4,013,605</b>	<b>17,598,669</b>	<b>31,049</b>	<b>17,965,994</b>	<b>415,485</b>	<b>49,015,240</b>	<b>603,676,584</b>
<b>Total</b>	<b>216,566</b>	<b>5,613,337</b>	<b>2,963,222</b>	<b>14,252,377</b>	<b>4,935,325</b>	<b>2,946,257</b>	<b>1,506,423</b>	<b>18,942</b>	<b>25,347</b>	<b>4,013,605</b>	<b>17,598,669</b>	<b>31,049</b>	<b>17,965,994</b>	<b>415,485</b>	<b>72,002,058</b>	<b>949,363,782</b>

DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Net Generation (mWh)</b>																
Coal	25,397	573,052			366,421					401,855					1,366,724	22,653,740
Oil - CC															-	-
Oil - Steam/CT	1,315	7,791			1,972	-	-	20	41	803		-			12,042	232,515
Gas - CC			428,198			416,157	214,977								1,059,332	13,695,555
Gas - CT								1,871 (466)	1,016			1,961		37,330	42,178	2,550,671
Gas - Steam					128,002										127,536	187,574
Biogas			-			3,259	-								3,259	30,204
Nuclear 100%				1,420,722							1,778,199		1,782,248		4,981,169	59,936,028
Hydro (Total System)															323,664	2,347,824
Solar (Total System)															5,768	130,018
<b>Total</b>	<b>26,712</b>	<b>580,843</b>	<b>428,198</b>	<b>1,420,722</b>	<b>496,394</b>	<b>419,416</b>	<b>214,977</b>	<b>1,425</b>	<b>1,057</b>	<b>402,758</b>	<b>1,778,199</b>	<b>1,961</b>	<b>1,782,248</b>	<b>37,330</b>	<b>7,921,672</b>	<b>101,764,129</b>
<b>Cost of Reagents Consumed (\$)</b>																
Ammonia		(\$46,049)	\$14,280		\$11,119	\$8,043	\$11,630								(\$977)	\$4,077,078
Limestone	\$24,711	467,587			478,632					\$374,113					1,345,043	18,594,631
Sorbents	-	53,543								73,539					127,081	2,353,883
Urea	-									45,004					45,004	928,117
Re-emission Chemical		-													-	69,161
Dibasic Acid	-														-	-
Activated Carbon	34,464														34,464	170,782
<b>Total</b>	<b>\$59,175</b>	<b>\$475,081</b>	<b>\$14,280</b>		<b>489,751</b>	<b>\$8,043</b>	<b>\$11,630</b>			<b>\$492,656</b>					<b>\$1,650,615</b>	<b>\$27,193,652</b>

**Notes:**

Detail amounts may not add to totals shown due to rounding.  
Data is reflected at 100% ownership.  
Schedule excludes in-transit and terminal activity.  
Cents/MBTU and cents/kWh are not computed when costs and/or net generation is negative.  
Re-emission chemical reagent expense is not recoverable in NC.

DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	Mill Creek CT	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Coal Data:</b>													
Beginning balance	196,674	741,379		565,251			-		448,731			1,952,035	2,321,844
Tons received during period	-	221,261		95,812					262,988			580,061	8,353,369
Inventory adjustments	(16,000)	(91,871)		(46,501)			-		(41,785)			(196,158)	(171,512)
Tons burned during period	8,841	221,660		146,683			-		158,816			536,000	8,703,762
Ending balance	171,833	649,109		467,879			-		511,118			1,799,939	1,799,939
MBTUs per ton burned	23.31	24.95		24.81			-		25.21			24.96	24.62
Cost of ending inventory (\$/ton)	83.82	88.09		87.87			-		86.22			87.09	87.09
<b>Oil Data:</b>													
Beginning balance	90,694	221,182	-	236,089	-	-	714,747	9,834,797	312,274	4,366,782	3,238,190	19,014,755	16,962,536
Gallons received during period	75,652	578,080	-	144,399	-	-	-	-	-	-	-	798,131	21,144,157
Miscellaneous adjustments	448	(35,415)	-	(11,633)	-	-	(9,425)	-	-	-	-	(57,379)	(352,297)
Gallons burned during period	75,879	596,667	-	137,943	-	-	1,520	12,305	66,449	-	-	889,408	18,888,297
Ending balance	90,915	167,180	-	230,912	-	-	703,802	9,822,492	245,825	4,366,782	3,238,190	18,866,098	18,866,098
Cost of ending inventory (\$/gal)	2.16	1.99	-	2.08	-	-	2.33	2.10	2.23	2.47	2.17	2.20	2.20
<b>Natural Gas Data:</b>													
Beginning balance													
MCF received during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,487	400,698	8,889,956	125,135,402
MCF burned during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,487	400,698	8,889,956	125,135,402
Ending balance													
<b>Biogas Data:</b>													
Beginning balance													
MCF received during period			-		22,062	-						22,062	210,727
MCF burned during period			-		22,062	-						22,062	210,727
Ending balance													
<b>Limestone Data:</b>													
Beginning balance	23,869	38,673		34,190					37,083			133,815	169,322
Tons received during period	-	6,707		7,615					12,836			27,159	444,242
Inventory adjustments	(2,996)	(4,910)		-					(7,085)			(14,991)	(14,991)
Tons consumed during period	527	11,600		9,514					9,187			30,828	483,419
Ending balance	20,346	28,870		32,292					33,647			115,155	115,155
Cost of ending inventory (\$/ton)	46.89	39.54		39.44					40.72			41.16	41.16
<b>Ammonia Data:</b>													
Beginning balance		1,315										1,315	1,159
Tons received during period		901										901	4,715
Tons consumed during period		583										583	4,241
Ending balance		1,633										1,633	1,633
Cost of ending inventory (\$/ton)		620.44										620.44	620.44
												Qtr Ending December 2018	Total 12 ME December 2018

**Notes:**

Detail amounts may not add to totals shown due to rounding.  
Schedule excludes in-transit and terminal activity.  
Gas is burned as received; therefore, inventory balances are not maintained.

**DUKE ENERGY CAROLINAS**  
**ANALYSIS OF COAL PURCHASED**  
**DECEMBER 2018**

<b>STATION</b>	<b>TYPE</b>	<b>QUANTITY OF TONS DELIVERED</b>	<b>DELIVERED COST</b>	<b>DELIVERED COST PER TON</b>
<b>ALLEN</b>	SPOT	-	\$ -	\$ -
	CONTRACT	-	-	-
	ADJUSTMENTS	-	49,933	-
	TOTAL	-	49,933	-
<b>BELEWS CREEK</b>	SPOT	-	11,982	-
	CONTRACT	221,261	17,706,037	80.02
	ADJUSTMENTS	-	189,618	-
	TOTAL	221,261	17,907,637	80.93
<b>CLIFFSIDE</b>	SPOT	-	-	-
	CONTRACT	95,812	7,221,379	75.37
	ADJUSTMENTS	-	1,326,849	-
	TOTAL	95,812	8,548,228	89.22
<b>MARSHALL</b>	SPOT	96,525	8,181,703	84.76
	CONTRACT	166,463	13,355,663	80.23
	ADJUSTMENTS	-	542,373	-
	TOTAL	262,988	22,079,739	83.96
<b>ALL PLANTS</b>	SPOT	96,525	8,193,685	84.89
	CONTRACT	483,536	38,283,079	79.17
	ADJUSTMENTS	-	2,108,773	-
	TOTAL	580,061	\$ 48,585,537	\$ 83.76

**DUKE ENERGY CAROLINAS**  
**ANALYSIS OF COAL QUALITY RECEIVED**  
**DECEMBER 2018**

<b>STATION</b>	<b>PERCENT MOISTURE</b>	<b>PERCENT ASH</b>	<b>HEAT VALUE</b>	<b>PERCENT SULFUR</b>
<b>BELEWS CREEK</b>	6.91	10.15	12,468	1.58
<b>CLIFFSIDE</b>	8.48	7.60	12,603	2.35
<b>MARSHALL</b>	6.73	10.02	12,508	1.73



**DUKE ENERGY CAROLINAS  
ANALYSIS OF OIL PURCHASED  
DECEMBER 2018**

	<b>ALLEN</b>	<b>BELEWS CREEK</b>	<b>CLIFFSIDE</b>
<b>VENDOR</b>	HighTowers	HighTowers	HighTowers
<b>SPOT/CONTRACT</b>	Contract	Contract	Contract
<b>SULFUR CONTENT %</b>	0	0	0
<b>GALLONS RECEIVED</b>	75,652	578,080	144,399
<b>TOTAL DELIVERED COST</b>	\$ 143,133	\$ 1,082,966	\$ 273,156
<b>DELIVERED COST/GALLON</b>	\$ 1.89	\$ 1.87	\$ 1.89
<b>BTU/GALLON</b>	138,000	138,000	138,000

**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
January, 2018 - December, 2018  
Nuclear Units

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<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Oconee 1	6,745,635	847	90.91	89.94
Oconee 2	7,581,168	848	102.06	100.00
Oconee 3	6,967,442	859	92.59	92.12
McGuire 1	10,359,250	1,158	102.12	99.56
McGuire 2	9,502,818	1,158	93.68	91.80
Catawba 1	9,510,487	1,160	93.59	92.99
Catawba 2	9,269,228	1,150	92.01	91.84

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**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Combined Cycle Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Buck CC	11	1,463,456	206	81.10	88.68
Buck CC	12	1,471,968	206	81.57	89.09
Buck CC	ST10	2,237,637	312	81.87	96.78
Buck CC	Block Total	5,173,061	724	81.57	92.29
Dan River CC	8	1,433,925	199	82.26	86.38
Dan River CC	9	1,410,200	199	80.90	85.84
Dan River CC	ST7	2,118,133	320	75.56	91.38
Dan River CC	Block Total	4,962,258	718	78.90	88.46
WS Lee CC	11	1,030,538	223	70.01	75.09
WS Lee CC	12	1,090,492	223	74.08	77.05
WS Lee CC	ST10	1,402,639	337	63.05	76.36
WS Lee CC	Block Total	3,523,669	783	68.17	76.19

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

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**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018**

**Baseload Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Belews Creek 1	4,793,474	1,110	49.30	88.06
Belews Creek 2	3,227,943	1,110	33.20	69.66
Marshall 3	3,176,205	658	55.10	89.31
Marshall 4	3,675,692	660	63.58	88.48

**Notes:**

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018**

**Intermediate Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Cliffside 6	4,311,369	844	58.31	75.32
Marshall 1	958,416	380	28.79	88.74
Marshall 2	675,957	380	20.31	68.31

**Notes:**

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018  
Other Cycling Steam Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Allen	1	71,408	167	4.88	83.17
Allen	2	86,505	167	5.91	84.03
Allen	3	158,113	270	6.68	80.91
Allen	4	178,336	267	7.62	89.89
Allen	5	325,399	259	14.34	85.49
Cliffside	5	1,243,104	546	25.99	61.63
Lee	3	54,152	173	3.57	36.34

Notes:

- 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 Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Lee CT	79,514	96	84.70
Lincoln CT	82,484	1,565	93.72
Mill Creek CT	201,194	735	99.23
Rockingham CT	2,325,235	895	90.19

Notes:

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

**Duke Energy Carolinas  
Power Plant Performance Data**

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**Twelve Month Summary  
January, 2018 through December, 2018  
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
<b>Conventional Hydroelectric Stations:</b>			
Bear Creek	37,232	9.5	86.90
Bridgewater	117,680	31.5	95.52
Bryson	4,632	0.9	85.69
Cedar Cliff	27,610	6.8	92.39
Cedar Creek	178,151	45.0	81.91
Cowans Ford	312,212	324.0	58.69
Dearborn	222,145	42.0	97.55
Fishing Creek	203,570	50.0	88.41
Franklin	3,726	1.0	58.90
Gaston Shoals	14,686	4.5	96.65
Great Falls	-92	12.0	100.00
Keowee	98,064	152.0	99.21
Lookout Shoals	162,927	27.0	99.26
Mission	5,388	1.8	51.83
Mountain Island	207,502	62.0	90.56
Nantahala	270,145	50.0	99.03
Ninety-Nine Islands	83,267	15.2	91.67
Oxford	107,478	40.0	38.56
Queens Creek	4,621	1.4	99.89
Rhodhiss	119,297	33.5	94.18
Rocky Creek	-73	3.0	0.00
Tennessee Creek	48,111	9.8	93.76
Thorpe	96,019	19.7	93.15
Tuckasegee	7,077	2.5	85.11
Tuxedo	33,861	6.4	96.21
Wateree	336,004	85.0	81.96
Wylie	175,810	72.0	55.96
<b>Pumped Storage Hydroelectric Stations:</b>			
<b>Gross Generation</b>			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
<b>Energy for Pumping</b>			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
<b>Net Generation</b>			
Bad Creek	-391,555		
Jocassee	-137,671		

**Notes:**

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January 2018 through December 2018  
Pre-commercial Combined Cycle Units**

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

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
January 2018					
Lee	11	-10	n/a	n/a	n/a
Lee	12	-11	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-21	n/a	n/a	n/a
February 2018					
Lee	11	-1,575	n/a	n/a	n/a
Lee	12	-1,120	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-2,695	n/a	n/a	n/a
March 2018					
Lee	11	25,973	n/a	n/a	n/a
Lee	12	14,939	n/a	n/a	n/a
Lee	ST10	-1,349	n/a	n/a	n/a
Lee	Block Total	39,563	n/a	n/a	n/a
April 1 - 4					
Lee	11	14,158	n/a	n/a	n/a
Lee	12	6,771	n/a	n/a	n/a
Lee	ST10	8,994	n/a	n/a	n/a
Lee	Block Total	29,923	n/a	n/a	n/a
Total		66,771			

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

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

Period: December, 2018

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Oconee	1	11/30/2018 - 12/08/2018	177.87	Unscheduled	1B2 reactor coolant pump seal leakage	Failure of reactor coolant pump seal	Replaced reactor coolant pump seal
	2	None					
	3	None					
McGuire	1	None					
	2	None					
Catawba	1	11/17/2018 - 12/11/2018	255.70	Scheduled	End-of-cycle 24 refueling outage	Planned refueling outage	Refueling outage in progress
	2	None					

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
December 2018**

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**Belews Creek Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1	12/3/2018 5:37:00 PM To 12/6/2018 5:07:00 AM	Unsch	1070 Second Reheater Leaks	HRH Leak on 9th floor. P17 Tube 7,8,9,10,11 and 12, P18 Tubes 10,11 and 12.	
1	12/22/2018 6:00:00 PM To 12/23/2018 2:55:00 PM	Sch	1000 Furnace Wall Leaks	Furnace wall leak on 6th floor.	
1	12/26/2018 7:00:00 AM To 1/1/2019 12:00:00 AM	Sch	8110 Wet Scrubber - Spray Nozzles	1B Absorber agitator and mist eliminator header repairs.	
2	9/8/2018 3:00:00 AM To 12/8/2018 12:00:00 AM	Sch	4520 Gen. Stator Windings; Bushings; And Terminals	Unit 2 fall outage for SSH replacement, LP Generator rewind and CCP final ties.	
2	12/8/2018 12:00:00 AM To 12/13/2018 3:23:00 AM	Sch	3999 Other Miscellaneous Balance Of Plant Problems	Fuel oil fire from replaced accumulator, 2B SAH Rub from new seals,200-2 not wired.	
2	12/14/2018 10:41:00 AM To 12/16/2018 11:54:00 PM	Unsch	8499 Other Miscellaneous Wet Scrubber Problems	FGD Stack doors left open and could not be closed online.	
2	12/27/2018 9:34:00 PM To 12/31/2018 9:30:00 PM	Sch	1492 Air Heater Fouling (Tubular)	Unit 2 PAH plugged and unable to make mill temps.	

**Buck Combined Cycle Station**

No Outages at Baseload Units During the Month.

**Dan River Combined Cycle Station**

No Outages at Baseload Units During the Month.

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
December 2018**

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**Marshall Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
4	12/7/2018 9:58:00 PM To 12/15/2018 4:00:00 PM	Sch	1493 Air Heater Fouling (Regenerative)	APH Wash.	
4	12/18/2018 8:00:00 AM To 12/20/2018 5:00:00 PM	Sch	0890 Bottom Ash Systems (Wet or Dry)	Bottom Ash Hopper Seal Trough Repairs.	

**WS Lee Combined Cycle**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
WS Lee CC ST 10	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	4289 Turbine - Other Lube Oil System Problems	Trip due to low lube oil in reservoir.	
WS Lee CC ST 10	12/22/2018 12:10:00 AM To 12/22/2018 1:00:00 AM	Unsch	4289 Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC ST 10	12/22/2018 1:53:00 AM To 12/22/2018 11:00:00 AM	Unsch	4289 Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC ST 10	12/22/2018 11:42:00 AM To 12/22/2018 2:00:00 PM	Unsch	4289 Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC GT 11	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	3430 Feedwater Regulating (Boiler Level Control) Valve	Trip due to IP drum level.	
WS Lee CC GT 11	12/21/2018 6:30:00 AM To 12/21/2018 10:00:00 AM	Sch	3352 Feedwater Chemistry	Shut down due to water chemistry/vac.	
WS Lee CC GT 12	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	3430 Feedwater Regulating (Boiler Level Control) Valve	Trip due to IP drum level.	

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

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

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**December 2018  
Oconee Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>		<u>Unit 3</u>	
(A) MDC (mW)	847		848		859	
(B) Period Hours	744		744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	481,371	76.39	648,846	102.84	652,031	102.02
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	0	0.00	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	150,653	23.91	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-1,856	-0.30	-17,934	-2.84	-12,935	-2.02
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00	0	0.00
(J) Net mWh Possible in Period	630,168	100.00%	630,912	100.00%	639,096	100.00%
(K) Equivalent Availability (%)	75.43		100.00		100.00	
(L) Output Factor (%)	100.39		102.84		102.02	
(M) Heat Rate (BTU/NkWh)	10,230		10,050		10,001	

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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

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**December 2018  
McGuire Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1158		1158	
(B) Period Hours	744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	891,451	103.47	886,748	102.92
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-29,899	-3.47	-25,196	-2.92
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	861,552	100.00%	861,552	100.00%
(K) Equivalent Availability (%)		100.00		100.00
(L) Output Factor (%)		103.47		102.92
(M) Heat Rate (BTU/NkWh)		9,869		9,923

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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

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**December 2018  
Catawba Nuclear Station**

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	1160	1150		
(B) Period Hours	744	744		
(C) Net Gen (mWh) and Capacity Factor (%)	552,976	64.07	867,746	101.42
(D) Net mWh Not Gen due to Full Schedule Outages	296,612	34.37	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	13,307	1.54	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	145	0.02	-12,146	-1.42
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	863,040	100.00%	855,600	100.00%
(K) Equivalent Availability (%)		63.35		100.00
(L) Output Factor (%)		97.63		101.42
(M) Heat Rate (BTU/NkWh)		10,134		9,967

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Carolinas  
Base Load Power Plant  
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**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	744	744
(C) Net Generation (mWh)	404,610	176,233
(D) Capacity Factor (%)	48.99	21.34
(E) Net mWh Not Generated due to Full Scheduled Outages	175,287	429,921
(F) Scheduled Outages: percent of Period Hrs	21.23	52.06
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	66,045	67,951
(J) Forced Outages: percent of Period Hrs	8.00	8.23
(K) Net mWh Not Generated due to Partial Forced Outages	3,159	45,010
(L) Forced Derates: percent of Period Hrs	0.38	5.45
(M) Net mWh Not Generated due to Economic Dispatch	176,739	106,725
(N) Economic Dispatch: percent of Period Hrs	21.40	12.92
(O) Net mWh Possible in Period	825,840	825,840
(P) Equivalent Availability (%)	70.39	34.26
(Q) Output Factor (%)	85.98	54.19
(R) Heat Rate (BTU/NkWh)	9,236	10,647

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's
- Data is reflected at 100% ownership.

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**Duke Energy Carolinas  
Base Load Power Plant  
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**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	312	724
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	129,223	129,215	169,760	428,198
(D) Capacity Factor (%)	84.31	84.31	73.13	79.49
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	5,952	5,952
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	2.56	1.10
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	24,041	24,049	56,416	104,506
(N) Economic Dispatch: percent of Period Hrs	15.69	15.69	24.30	19.40
(O) Net mWh Possible in Period	153,264	153,264	232,128	538,656
(P) Equivalent Availability (%)	100.00	100.00	97.44	98.90
(Q) Output Factor (%)	85.29	86.03	73.13	80.21
(R) Heat Rate (BTU/NkWh)	9,945	9,739	1,661	6,599

Notes:

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**Duke Energy Carolinas  
Base Load Power Plant  
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**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	199	199	320	718
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	130,730	122,378	166,308	419,416
(D) Capacity Factor (%)	88.30	82.66	69.85	78.51
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	17,326	25,678	71,772	114,776
(N) Economic Dispatch: percent of Period Hrs	11.70	17.34	30.15	21.49
(O) Net mWh Possible in Period	148,056	148,056	238,080	534,192
(P) Equivalent Availability (%)	100.00	100.00	100.00	100.00
(Q) Output Factor (%)	89.45	88.83	71.12	81.01
(R) Heat Rate (BTU/NkWh)	10,412	10,566	1,784	7,036

**Notes:**

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- (R) Includes Light Off BTU's
- Data is reflected at 100% ownership.

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
December 2018**

**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	744	744
(C) Net Generation (mWh)	250,510	51,399
(D) Capacity Factor (%)	51.17	10.47
(E) Net mWh Not Generated due to Full Scheduled Outages	0	160,402
(F) Scheduled Outages: percent of Period Hrs	0.00	32.67
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	239,042	279,239
(N) Economic Dispatch: percent of Period Hrs	48.83	56.87
(O) Net mWh Possible in Period	489,552	491,040
(P) Equivalent Availability (%)	100.00	67.33
(Q) Output Factor (%)	51.17	46.92
(R) Heat Rate (BTU/NkWh)	9,867	10,142

**Notes:**

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- (R) Includes Light Off BTU's
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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
December 2018**

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	WS Lee Combined Cycle			
	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	223	223	337	783
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	65,805	67,050	82,122	214,977
(D) Capacity Factor (%)	39.66	40.41	32.75	36.90
(E) Net mWh Not Generated due to Full Scheduled Outages	781	0	0	781
(F) Scheduled Outages: percent of Period Hrs	0.47	0.00	0.00	0.13
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	90,519	90,519	140,922	321,961
(J) Forced Outages: percent of Period Hrs	54.56	54.56	56.21	55.27
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	8,807	8,343	27,684	44,834
(N) Economic Dispatch: percent of Period Hrs	5.31	5.03	11.04	7.70
(O) Net mWh Possible in Period	165,912	165,912	250,728	582,552
(P) Equivalent Availability (%)	44.97	45.44	43.79	44.60
(Q) Output Factor (%)	91.32	94.95	83.12	89.03
(R) Heat Rate (BTU/NkWh)	9,815	9,566	2,061	6,775

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's
- Data is reflected at 100% ownership.

**Duke Energy Carolinas  
Intermediate Power Plant Performance  
Review Plan  
December 2018**

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**Cliffside Station**

**Cliffside 6**

(A) MDC (mW)	844
(B) Period Hrs	744
(C) Net Generation (mWh)	383,291
(D) Net mWh Possible in Period	627,936
(E) Equivalent Availability (%)	87.46
(F) Output Factor (%)	69.10
(G) Capacity Factor (%)	61.04

**Notes:**

- 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 Carolinas  
Peaking Power Plant Performance  
Review Plan  
December 2018**

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**Cliffside Station**

**Unit 5**

(A) MDC (mW)	546
(B) Period Hrs	744
(C) Net Generation (mWh)	113,103
(D) Net mWh Possible in Period	406,224
(E) Equivalent Availability (%)	80.73
(F) Output Factor (%)	74.07
(G) Capacity Factor (%)	27.84

**Notes:**

- 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 Carolinas  
Base Load Power Plant Performance Review Plan**

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**January 2018 - December 2018  
Oconee Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>		<u>Unit 3</u>	
(A) MDC (mW)	847		848		859	
(B) Period Hours	8760		8760		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	6,745,635	90.91	7,581,168	102.06	6,967,442	92.59
(D) Net mWh Not Gen due to Full Schedule Outages	524,378	7.07	0	0.00	582,288	7.74
* (E) Net mWh Not Gen due to Partial Scheduled Outages	29,529	0.40	347	0.00	46,294	0.62
(F) Net mWh Not Gen due to Full Forced Outages	184,787	2.49	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-64,608	-0.87	-153,035	-2.06	-71,184	-0.95
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00	0	0.00
(J) Net mWh Possible in Period	7,419,720	100.00%	7,428,480	100.00%	7,524,840	100.00%
(K) Equivalent Availability (%)	89.94		100.00		92.12	
(L) Output Factor (%)	100.52		102.06		100.36	
M) Heat Rate (BTU/NkWh)	10,233		10,127		10,102	

\* Estimate  
FOOTNOTE: D and F Include Ramping Losses

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

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**January 2018 - December 2018**  
**McGuire Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1158		1158	
(B) Period Hours	8760		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	* 10,359,250	102.12	9,502,818	93.68
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	791,628	7.80
* (E) Net mWh Not Gen due to Partial Scheduled Outages	796	0.01	28,506	0.28
(F) Net mWh Not Gen due to Full Forced Outages	34,991	0.34	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-250,957	-2.47	-178,872	-1.76
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	10,144,080	100.00%	10,144,080	100.00%
(K) Equivalent Availability (%)		99.56		91.80
(L) Output Factor (%)		102.47		101.61
(M) Heat Rate (BTU/NkWh)		9,957		10,015

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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

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**January 2018 - December 2018  
Catawba Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1160		1150	
(B) Period Hours	0		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	9,510,487	102.28	9,269,228	92.01
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	777,783	7.72
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	76,740	0.76
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	0	0.00	-49,751	-0.49
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	0	100.00%	10,074,000	100.00%
(K) Equivalent Availability (%)		95.52		91.84
(L) Output Factor (%)		100.33		99.71
(M) Heat Rate (BTU/NkWh)		10,098		10,048

\* Estimate  
FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	4,793,474	3,227,943
(D) Capacity Factor (%)	49.30	33.20
(E) Net mWh Not Generated due to Full Scheduled Outages	747,659	2,689,881
(F) Scheduled Outages: percent of Period Hrs	7.69	27.66
(G) Net mWh Not Generated due to Partial Scheduled Outages	1,040	740
(H) Scheduled Derates: percent of Period Hrs	0.01	0.01
(I) Net mWh Not Generated due to Full Forced Outages	311,892	173,216
(J) Forced Outages: percent of Period Hrs	3.21	1.78
(K) Net mWh Not Generated due to Partial Forced Outages	100,192	86,443
(L) Forced Derates: percent of Period Hrs	1.03	0.89
(M) Net mWh Not Generated due to Economic Dispatch	3,769,344	3,545,377
(N) Economic Dispatch: percent of Period Hrs	38.76	36.46
(O) Net mWh Possible in Period	9,723,600	9,723,600
(P) Equivalent Availability (%)	88.06	69.66
(Q) Output Factor (%)	73.99	67.36
(R) Heat Rate (BTU/NkWh)	9,305	9,599

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	312	724
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,463,456	1,471,968	2,237,637	5,173,061
(D) Capacity Factor (%)	81.10	81.57	81.87	81.57
(E) Net mWh Not Generated due to Full Scheduled Outages	61,021	56,502	58,692	176,215
(F) Scheduled Outages: percent of Period Hrs	3.38	3.13	2.15	2.78
(G) Net mWh Not Generated due to Partial Scheduled Outages	139,166	139,968	28,219	307,353
(H) Scheduled Derates: percent of Period Hrs	7.71	7.76	1.03	4.85
(I) Net mWh Not Generated due to Full Forced Outages	4,003	354	806	5,163
(J) Forced Outages: percent of Period Hrs	0.22	0.02	0.03	0.08
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	277	277
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.01	0.00
(M) Net mWh Not Generated due to Economic Dispatch	136,914	135,768	407,489	680,170
(N) Economic Dispatch: percent of Period Hrs	7.59	7.52	14.91	10.72
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,733,120	6,342,240
(P) Equivalent Availability (%)	88.68	89.09	96.78	92.29
(Q) Output Factor (%)	84.66	84.85	84.14	84.49
(R) Heat Rate (BTU/NkWh)	10,221	9,937	2,440	6,774

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	199	199	320	718
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,433,925	1,410,200	2,118,133	4,962,258
(D) Capacity Factor (%)	82.26	80.90	75.56	78.90
(E) Net mWh Not Generated due to Full Scheduled Outages	97,347	105,218	156,480	359,045
(F) Scheduled Outages: percent of Period Hrs	5.58	6.04	5.58	5.71
(G) Net mWh Not Generated due to Partial Scheduled Outages	132,928	132,170	5,760	270,858
(H) Scheduled Derates: percent of Period Hrs	7.63	7.58	0.21	4.31
(I) Net mWh Not Generated due to Full Forced Outages	7,068	9,462	11,920	28,450
(J) Forced Outages: percent of Period Hrs	0.41	0.54	0.43	0.45
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	67,418	67,418
(L) Forced Derates: percent of Period Hrs	0.00	0.00	2.41	1.07
(M) Net mWh Not Generated due to Economic Dispatch	71,972	86,190	443,489	601,650
(N) Economic Dispatch: percent of Period Hrs	4.13	4.94	15.82	9.57
(O) Net mWh Possible in Period	1,743,240	1,743,240	2,803,200	6,289,680
(P) Equivalent Availability (%)	86.38	85.84	91.38	88.46
(Q) Output Factor (%)	87.94	87.41	80.83	84.62
(R) Heat Rate (BTU/NkWh)	10,614	10,673	2,397	7,123

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	3,176,205	3,675,692
(D) Capacity Factor (%)	55.10	63.58
(E) Net mWh Not Generated due to Full Scheduled Outages	372,746	501,545
(F) Scheduled Outages: percent of Period Hrs	6.47	8.67
(G) Net mWh Not Generated due to Partial Scheduled Outages	2,091	12,896
(H) Scheduled Derates: percent of Period Hrs	0.04	0.22
(I) Net mWh Not Generated due to Full Forced Outages	95,739	81,433
(J) Forced Outages: percent of Period Hrs	1.66	1.41
(K) Net mWh Not Generated due to Partial Forced Outages	145,499	69,994
(L) Forced Derates: percent of Period Hrs	2.52	1.21
(M) Net mWh Not Generated due to Economic Dispatch	1,971,800	1,440,040
(N) Economic Dispatch: percent of Period Hrs	34.21	24.91
(O) Net mWh Possible in Period	5,764,080	5,781,600
(P) Equivalent Availability (%)	89.31	88.48
(Q) Output Factor (%)	68.89	75.74
(R) Heat Rate (BTU/NkWh)	9,553	9,406

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	223	223	337	783
(B) Period Hrs	6,601	6,601	6,601	6,601
(C) Net Generation (mWh)	1,030,538	1,090,492	1,402,639	3,523,669
(D) Capacity Factor (%)	70.01	74.08	63.05	68.17
(E) Net mWh Not Generated due to Full Scheduled Outages	200,652	187,320	291,168	679,140
(F) Scheduled Outages: percent of Period Hrs	13.63	12.73	13.09	13.14
(G) Net mWh Not Generated due to Partial Scheduled Outages	27,459	28,514	67,117	123,090
(H) Scheduled Derates: percent of Period Hrs	1.87	1.94	3.02	2.38
(I) Net mWh Not Generated due to Full Forced Outages	138,565	122,014	167,641	428,220
(J) Forced Outages: percent of Period Hrs	9.41	8.29	7.54	8.29
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	74,809	43,683	295,972	414,464
(N) Economic Dispatch: percent of Period Hrs	5.08	2.97	13.30	8.02
(O) Net mWh Possible in Period	1,472,023	1,472,023	2,224,537	5,168,583
(P) Equivalent Availability (%)	75.09	77.05	76.36	76.19
(Q) Output Factor (%)	96.75	98.41	85.00	92.16
(R) Heat Rate (BTU/NkWh)	10,365	10,240	1,646	6,855

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January 2018 through December 2018**

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**Pre-Commercial  
Lee Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)				
(B) Period Hrs				
(C) Net Generation (mWh)	38,546	20,580	7,645	66,771
(D) Capacity Factor (%)				
(E) Net mWh Not Generated due to Full Scheduled Outages				
(F) Scheduled Outages: percent of Period Hrs				
(G) Net mWh Not Generated due to Partial Scheduled Outages				
(H) Scheduled Derates: percent of Period Hrs				
(I) Net mWh Not Generated due to Full Forced Outages				
(J) Forced Outages: percent of Period Hrs				
(K) Net mWh Not Generated due to Partial Forced Outages				
(L) Forced Derates: percent of Period Hrs				
(M) Net mWh Not Generated due to Economic Dispatch				
(N) Economic Dispatch: percent of Period Hrs				
(O) Net mWh Possible in Period				
(P) Equivalent Availability (%)				
(Q) Output Factor (%)				
(R) Heat Rate (BTU/NkWh)				

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first month a station is in commercial operation. Lee CC began commercial operations April 5, 2018.

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**Duke Energy Carolinas  
Intermediate Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

**Cliffside Station**

<b>Units</b>	<b>Unit 6</b>
(A) MDC (mW)	844
(B) Period Hrs	8,760
(C) Net Generation (mWh)	4,311,369
(D) Net mWh Possible in Period	7,393,440
(E) Equivalent Availability (%)	75.32
(F) Output Factor (%)	79.29
(G) Capacity Factor (%)	58.31

**Notes:**

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



**Duke Energy Carolinas  
Peaking Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Cliffside Station**

<b>Units</b>	<b>Unit 5</b>
<b>(A) MDC (mW)</b>	546
<b>(B) Period Hrs</b>	8,760
<b>(C) Net Generation (mWh)</b>	1,243,104
<b>(D) Net mWh Possible in Period</b>	4,782,960
<b>(E) Equivalent Availability (%)</b>	60.18
<b>(F) Output Factor (%)</b>	71.78
<b>(G) Capacity Factor (%)</b>	25.99

**Notes:**

- 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 CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Proposed Nuclear Capacity Factor  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 1

I/A

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs	9,270,870	9,127,064	10,021,874	9,249,360	7,252,338	6,692,637	6,844,888	58,459,031
Cost (Gross of Joint Owners)	\$ 57,728,557	\$ 58,001,149	\$ 60,167,863	\$ 56,622,253	\$ 46,212,440	\$ 38,923,889	\$ 39,841,317	357,497,468
\$/MWh	6.2269	6.3549	6.0037	6.1217	6.3721	5.8159	5.8206	
Avg \$/MWh		6.1154						
Cents per kWh		0.6115						

Sept 2019 - August 2020			
MDC			
CATA_UN01	Catawba	MW	1,160.1
CATA_UN02	Catawba	MW	1,150.1
MCGU_UN01	McGuire	MW	1,158.0
MCGU_UN02	McGuire	MW	1,157.6
OCON_UN01	Oconee	MW	847.0
OCON_UN02	Oconee	MW	848.0
OCON_UN03	Oconee	MW	859.0
			<u>7,179.8</u>

Hours in month 8,760

Generation GWhs			
CATA_UN01	Catawba	GWh	9,271
CATA_UN02	Catawba	GWh	9,127
MCGU_UN01	McGuire	GWh	10,022
MCGU_UN02	McGuire	GWh	9,249
OCON_UN01	Oconee	GWh	7,252
OCON_UN02	Oconee	GWh	6,693
OCON_UN03	Oconee	GWh	6,845
			<u>58,459</u>

Proposed Nuclear Capacity Factor 92.95%

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Jun 27 2019

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
NERC 5 Year Average Nuclear Capacity Factor  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 2

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs with NERC applied	9,098,465	9,020,036	9,081,995	9,078,858	6,785,334	6,793,345	6,881,466	56,739,499
Hours	8760	8760	8760	8760	8760	8760	8760	8760
MDC	1160.1	1150.1	1158.0	1157.6	847.0	848.0	859.0	7179.8
Capacity factor	89.53%	89.53%	89.53%	89.53%	91.45%	91.45%	91.45%	90.21%
Cost	\$ 55,640,302	\$ 55,160,685	\$ 55,539,582	\$ 55,520,397	\$ 41,494,696	\$ 41,543,686	\$ 42,082,578	\$ 346,981,926
 Avg \$/MWh		6.1154						
Cents per kWh		0.6115						

2013-2017	Capacity Rating	NCF Rating	Weighted Average
Oconee 1	847.0	91.45	10.79%
Oconee 2	848.0	91.45	10.80%
Oconee 3	859.0	91.45	10.94%
McGuire 1	1158.0	89.53	14.44%
McGuire 2	1157.6	89.53	14.43%
Catawba 1	1160.1	89.53	14.47%
Catawba 2	1150.1	89.53	14.34%
	7179.8		90.21%

Wtd Avg on Capacity Rating

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**North Carolina Generation and Purchased Power in MWhs**  
**Billing Period Sept 2019 through Aug 2020**  
**Docket E-7, Sub 1190**

McGee Workpaper 3

Resource Type	Sept 2019 - August 2020	
NUC Total (Gross)	58,459,031	
COAL Total	18,355,203	
Gas CT and CC total (Gross)	20,821,617	
Run of River	4,839,425	
Net pumped Storage	(3,874,211)	
Total Hydro	965,214	
Catawba Joint Owners	(14,888,880)	
Lee CC Joint Owners	(878,400)	
DEC owned solar	184,444	
Total Generation		83,018,229
Purchases for REPS Compliance	1,204,212	
Qualifying Facility Purchases - Non-REPS compliance	1,275,248	
Other Purchases	66,854	
Allocated Economic Purchases	319,079	
Joint Dispatch Purchases	6,414,946	
	9,280,339	
Total Generation and Purchased Power		92,298,568
Fuel Recovered Through intersystem Sales	(687,755)	

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Fuel and Fuel Related Costs  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 4

Resource Type	Sept 2019 - August 2020	
Nuclear Total (Gross)	\$ 357,497,468	
COAL Total	570,050,837	
Gas CT and CC total (Gross)	503,184,086	
Catawba Joint Owner costs	(91,061,695)	
CC Joint Owner costs	(18,112,976)	
Reagents and gain/loss on sale of By-Products	24,959,649	Workpaper 9
Purchases for REPS Compliance - Energy	63,867,566	
Purchases for REPS Compliance Capacity	13,295,654	
Purchases of Qualifying Facilities - Energy	58,754,197	
Purchases of Qualifying Facilities - Capacity	14,874,084	
Other Purchases	2,029,948	
JDA Savings Shared	19,972,407	Workpaper 5
Allocated Economic Purchase cost	9,109,705	Workpaper 5
Joint Dispatch purchases	132,910,592	Workpaper 6
<b>Total Purchases</b>	<b>314,814,153</b>	
<b>Fuel Expense recovered through intersystem sales</b>	<b>(16,986,301)</b>	Workpaper 5
<b>Total System Fuel and Fuel Related Costs</b>	<b>\$ 1,644,345,221</b>	

## McGee Workpaper 5

**Jun 27 2019**

Sept 19 - Aug 20	\$	9,109,705	\$	(5,308,001)	\$	121,232,293	\$	19,972,407
					\$	132,910,592		Workpaper 6 - Transfer - Purchases
					\$	(11,678,300)		Workpaper 6 - Transfer - Sales
					\$	121,232,293		Sept 19-Aug 20 Net Fuel Transfer Payment
					\$	(11,678,300)		Workpaper 6 - Transfer - Sales
					\$	(5,308,001)		Sept 19-Aug 20 Economic Sales Cost
					\$	(16,986,301)		Total Fuel expense recovered through intersystem sales

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Merger Payments  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 6

	purchase		sale		purchase		sale		purchase	
	Transfer Projection		Purchase Allocation Delta		Adjusted Transfer		Fossil Gen Cost		Pre-Net Payments	
	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC
9/1/2019	464,096	14,623	10,534	(10,534)	474,630	14,623	\$ 22.64	\$ 20.60	\$ 301,261	\$ 10,745,454
10/1/2019	406,906	75,054	8,370	(8,370)	415,276	75,054	\$ 22.10	\$ 19.03	\$ 1,427,980	\$ 9,178,136
11/1/2019	675,108	1,571	33,083	(33,083)	708,192	1,571	\$ 21.71	\$ 20.01	\$ 31,436	\$ 15,371,607
12/1/2019	564,868	22,814	2,716	(2,716)	567,583	22,814	\$ 23.37	\$ 22.13	\$ 504,795	\$ 13,266,429
1/1/2020	207,223	163,501	(7,592)	7,592	207,223	171,093	\$ 25.26	\$ 24.72	\$ 4,228,626	\$ 5,234,152
2/1/2020	232,255	123,728	(8,963)	8,963	232,255	132,692	\$ 24.98	\$ 23.30	\$ 3,092,324	\$ 5,800,773
3/1/2020	468,979	12,017	7,840	(7,840)	476,820	12,017	\$ 20.80	\$ 16.50	\$ 198,232	\$ 9,917,629
4/1/2020	580,234	41,238	(4,789)	4,789	580,234	46,027	\$ 19.35	\$ 17.80	\$ 819,312	\$ 11,228,046
5/1/2020	666,200	17,354	14,825	(14,825)	681,026	17,354	\$ 19.93	\$ 17.44	\$ 302,581	\$ 13,571,628
6/1/2020	739,202	5,870	4,470	(4,470)	743,672	5,870	\$ 18.15	\$ 16.50	\$ 96,828	\$ 13,494,252
7/1/2020	672,958	24,313	(279)	279	672,958	24,592	\$ 19.09	\$ 16.62	\$ 408,669	\$ 12,848,407
8/1/2020	642,936	17,040	12,142	(12,142)	655,079	17,040	\$ 18.71	\$ 15.63	\$ 266,256	\$ 12,254,078
Sept 19 - Aug 20	6,320,965	519,122	72,358	(72,358)	6,414,946	540,745			\$ 11,678,300	\$ 132,910,592
Net Pre-Net Payments									\$	121,232,293

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected and Adjusted Projected Sales and Costs  
Proposed Nuclear Capacity Factor of 92.95%  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 7

Fall 2018 Forecast  
Billed Sales Forecast  
Sales Forecast - MWhs (000)

	Projected sales for the Billing Period	Remove impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:			
Residential	21,397,068		21,397,068
General	23,127,702		23,127,702
Industrial	12,939,285		12,939,285
Lighting	253,942		253,942
NC RETAIL	57,717,997		57,717,997
South Carolina:			
Residential	6,427,468	78,602	6,506,070
General	5,801,262	49,849	5,851,111
Industrial	9,500,669	688	9,501,357
Lighting	42,373	-	42,373
SC RETAIL	21,771,772	129,139	21,900,911
Total Retail Sales			
Residential	27,824,536	78,602	27,903,138
General	28,928,964	49,849	28,978,813
Industrial	22,439,954	688	22,440,642
Lighting	296,315	-	296,315
Retail Sales	79,489,769	129,139	79,618,908
Wholesale	7,624,936	-	7,624,936
Projected System MWH Sales for Fuel Factor	87,114,705	129,139	87,243,844
NC as a percentage of total	66.26%		66.16%
SC as a percentage of total	24.99%		25.10%
Wholesale as a percentage of total	8.75%		8.74%
	100.00%		100.00%
SC Net Metering allocation adjustment			
Total projected SC NEM MWhs		129,139	
Marginal fuel rate per MWh for SC NEM		\$ 32.50	
Fuel benefit to be directly assigned to SC Retail		\$ 4,197,018	
System Fuel Expense		\$ 1,644,345,221	McGee Exhibit 2 Schedule 1 Page 1 of 3
Fuel benefit to be directly assigned to SC Retail		\$ 4,197,018	
Total Fuel Costs for Allocation		\$ 1,648,542,239	

Reconciliation	System	NC Retail Customers	Wholesale	South Carolina Retail	
Total system fuel expense from McGee Exhibit 2 Schedule 1 Page 1	\$ 1,644,345,221				
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738				
Other fuel costs	\$ 1,616,175,484				
SC Net Metering Fuel Allocation adjustment	\$ 4,197,018				
Jurisdictional fuel costs after adj.	\$ 1,620,372,501				
Allocation to states/classes		66.16%	8.74%	25.10%	
Jurisdictional fuel costs	\$ 1,620,372,501	\$ 1,072,038,447	\$ 141,620,557	\$ 406,713,498	67.04% Capacity Allocator
Direct Assignment of Fuel benefit to SC Retail	\$ (4,197,018)	\$ -	\$ -	\$ (4,197,018)	
Total system actual fuel costs	\$ 1,616,175,484	\$ 1,072,038,447	\$ 141,620,557	\$ 402,516,480	
QF and REPS Compliance Purchased Power - Capacity	28,169,738	18,884,001			
Total system fuel expense from McGee Exhibit 2 Schedule 1 Page 1	\$ 1,644,345,221	\$ 1,090,922,448			

Exh. 2, Sch. 1 page 3



DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
 Billing Period Sept 2019 through Aug 2020  
 Docket E-7, Sub 1190

Revised McGee Workpaper 7a

Fall 2018 Forecast  
 Billed Sales Forecast - Normalized Test Period Sales  
 Sales Forecast - MWhs (000)

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove Impact of SC DERP Net Metered generation	Normalized Test Period Sales
North Carolina:					
NC RETAIL	59,480,703	155,235	(1,649,623)	-	57,986,315
South Carolina:					
SC RETAIL	21,918,532	72,754	(507,334)	129,139	21,613,091
Wholesale	9,088,393	81,154	(120,731)	-	9,048,816
Normalized System MWH Sales for Fuel Factor	90,487,628	309,143	(2,277,688)	129,139	88,648,222
NC as a percentage of total	65.73%				65.41%
SC as a percentage of total	24.22%				24.38%
Wholesale as a percentage of total	10.04%				10.21%
	100.00%				100.00%

SC Net Metering allocation adjustment  
 Total projected SC NEM MWhs  
 Marginal fuel rate per MWh for SC NEM  
 Fuel benefit to be directly assigned to SC Retail

129,139  
 \$ 32.50  
 \$ 4,197,018

System Fuel Expense  
 Fuel benefit to be directly assigned to SC Retail  
 Total Fuel Costs for Allocation

\$ 1,683,949,859  
 \$ 4,197,018  
 \$ 1,688,146,877

McGee Exhibit 2 Schedule 2 Page 1 of 3

Reconciliation	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from McGee Exhibit 2 Schedule 2 Page 1	\$ 1,683,949,859			
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738			
Other fuel costs	\$ 1,655,780,122			
SC Net Metering Fuel Allocation adjustment	\$ 4,197,018			
Jurisdictional fuel costs after adj.	\$ 1,659,977,139			
Allocation to states/classes		65.41%	10.21%	24.38%
Jurisdictional fuel costs	\$ 1,659,977,139	\$ 1,085,791,047	\$ 169,483,666	\$ 404,702,427
Direct Assignment of Fuel benefit to SC Retail	\$ (4,197,018)		\$ -	\$ (4,197,018)
Total system actual fuel costs	\$ 1,655,780,122	\$ 1,085,791,047	\$ 169,483,666	\$ 400,505,409
QF and REPS Compliance Purchased Power - Capacity	28,169,738	18,884,001		
Total system fuel expense from McGee Exhibit 2 Schedule 2 Page 1	\$ 1,683,949,859	\$ 1,104,675,048		

Exh. 2, Sch 2 page 3

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected and Adjusted Projected Sales and Costs  
NERC 5 Year Average Nuclear Capacity Factor of 90.21%  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 7b

Fall 2018 Forecast  
Billed Sales Forecast  
Sales Forecast - MWhs (000)

		Projected sales for the Billing Period	Remove Impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:				
	Residential	21,397,068		21,397,068
	General	23,127,702		23,127,702
	Industrial	12,939,285		12,939,285
	Lighting	253,942		253,942
	NC RETAIL	57,717,997	-	57,717,997
South Carolina:				
	Residential	6,427,468	78,602	6,506,070
	General	5,801,262	49,849	5,851,111
	Industrial	9,500,669	688	9,501,357
	Lighting	42,373	0	42,373
	SC RETAIL	21,771,772	129,139	21,900,911
Total Retail Sales				
	Residential	27,824,536	78,602	27,903,138
	General	28,928,964	49,849	28,978,813
	Industrial	22,439,954	688	22,440,642
	Lighting	296,315	-	296,315
	Retail Sales	79,489,769	129,139	79,618,908
	Wholesale	7,624,936	-	7,624,936
	Projected System MWh Sales for Fuel Factor	87,114,705	129,139	87,243,844
	NC as a percentage of total	66.26%		66.16%
	SC as a percentage of total	24.99%		25.10%
	Wholesale as a percentage of total	8.75%		8.74%
		100.00%		100.00%
	SC Net Metering allocation adjustment			
	Total projected SC NEM MWhs		129,139	
	Marginal fuel rate per MWh for SC NEM	\$	32.50	
	Fuel benefit to be directly assigned to SC Retail	\$	4,197,018	
	System Fuel Expense	\$	1,676,309,949	McGee Exhibit 2 Schedule 3 Page 1 of 3
	Fuel benefit to be directly assigned to SC Retail	\$	4,197,018	
	Total Fuel Costs for Allocation	\$	1,680,506,966	McGee Exhibit 2 Schedule 3 Page 3 of 3, Line 5

#### Reconciliation

	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1	\$ 1,676,309,949			
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738			
Other fuel costs	\$ 1,648,140,211			
SC Net Metering Fuel Allocation adjustment	\$ 4,197,018			
Jurisdictional fuel costs after adj.	\$ 1,652,337,229			
Allocation to states/classes		66.16%	8.74%	25.10%
Jurisdictional fuel costs	\$ 1,652,337,229	\$ 1,093,186,310	\$ 144,414,274	\$ 414,736,644
Direct Assignment of Fuel benefit to SC Retail	\$ (4,197,018)	\$ -	\$ -	\$ (4,197,018)
Total system actual fuel costs	\$ 1,648,140,211	\$ 1,093,186,310	\$ 144,414,274	\$ 410,539,627
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738	\$ 18,884,001		
Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1	\$ 1,676,309,949	\$ 1,112,070,311		

Exh. 2, Sch.3 page 3

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DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Annualized Revenue  
 Billing Period Sept 2019 through Aug 2020  
 Docket E-7, Sub 1190

McGee Workpaper 8

	January 2019 Actuals			Normalized Sales	Total Annualized Revenues
	Revenue	KWH Sales	Cents/ kwh	McGee EX 4	
	(a)	(b)	(a) / (b) *100 = ( c )	(d)	( c ) * (d) * 10
Residential	\$ 217,323,443.93	2,194,230,798	9.9043	22,043,791	\$ 2,183,285,633
General	\$ 143,353,269.17	1,936,498,544	7.4027	23,487,580	\$ 1,738,716,194
Industrial	\$ 49,109,115.03	890,320,580	5.5159	12,454,944	\$ 687,001,167
Total	\$ 409,785,828.13	5,021,049,922		57,986,315	\$ 4,609,002,994

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Reagents and ByProducts  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 9

Reagent and ByProduct projections

Date	Ammonia	Urea	Limestone	Magnesium hydroxide	Calcium Carbonate	Reagent Cost	Gypsum (Gain)/ Loss	Ash (Gain)/Loss	Sale of By-Products (Gain)/Loss
9/1/2019	\$ 342,265	\$ 77,914	\$ 1,644,941	\$ 215,442	\$ 119,083	\$ 2,399,645	\$ 347,807	\$ (20,361)	\$ 327,447
10/1/2019	\$ 203,263	\$ 46,271	\$ 976,890	\$ 96,653	\$ 59,479	\$ 1,382,556	\$ 222,691	\$ (500)	\$ 222,191
11/1/2019	\$ 295,673	\$ 67,308	\$ 1,421,021	\$ 141,587	\$ 80,226	\$ 2,005,816	\$ 307,158	\$ (14,173)	\$ 292,986
12/1/2019	\$ 280,685	\$ 63,896	\$ 1,348,984	\$ 200,980	\$ 105,495	\$ 2,000,040	\$ 253,684	\$ (31,440)	\$ 222,244
1/1/2020	\$ 480,295	\$ 109,336	\$ 2,308,323	\$ 235,514	\$ 119,285	\$ 3,252,753	\$ 448,822	\$ (51,070)	\$ 397,752
2/1/2020	\$ 455,643	\$ 103,724	\$ 2,189,841	\$ 224,812	\$ 115,218	\$ 3,089,236	\$ 426,261	\$ (54,924)	\$ 371,337
3/1/2020	\$ 280,833	\$ 63,929	\$ 1,349,695	\$ 197,989	\$ 96,692	\$ 1,989,138	\$ 249,549	\$ (49,646)	\$ 199,903
4/1/2020	\$ 112,329	\$ 25,571	\$ 539,858	\$ 73,146	\$ 41,882	\$ 792,786	\$ 114,210	\$ (7,717)	\$ 106,493
5/1/2020	\$ 127,830	\$ 29,100	\$ 614,359	\$ 89,834	\$ 50,633	\$ 911,756	\$ 128,869	\$ (9,205)	\$ 119,664
6/1/2020	\$ 116,620	\$ 26,548	\$ 560,481	\$ 93,291	\$ 51,598	\$ 848,537	\$ 114,157	\$ (8,031)	\$ 106,126
7/1/2020	\$ 252,434	\$ 57,465	\$ 1,213,211	\$ 193,957	\$ 106,887	\$ 1,823,954	\$ 246,905	\$ (18,748)	\$ 228,157
8/1/2020	\$ 228,139	\$ 51,934	\$ 1,096,445	\$ 180,818	\$ 101,250	\$ 1,658,586	\$ 225,313	\$ (14,765)	\$ 210,548
	\$ 3,176,009	\$ 722,995	\$ 15,264,049	\$ 1,944,022	\$ 1,047,728	\$ 22,154,802	\$ 3,085,428	\$ (280,581)	\$ 2,804,847
Total Reagent cost and Sale of By-products									\$ 24,959,649

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% calculation test  
Twelve Months Ended December 31, 2017  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 10

Line No.	Description	Forecast \$	(over)/under Collection \$	Total \$
1	Amount in current docket	107,380,554	72,488,427	179,868,981
2	Amount in Sub 1163, prior year docket	129,739,014	25,206,674	154,945,688
3	Increase/(Decrease)	(22,358,461)	47,281,753	24,923,292
4	2.5% of 2018 NC revenue of \$4,895,869,250.56			122,396,731
	Excess of purchased power growth over 2.5% of Revenue			0
<b>E-7 Sub 1190</b>				
WP 4	Purchases for REPS Compliance - Energy	63,867,566	66.16%	42,254,782
WP 4	Purchases for REPS Compliance Capacity	13,295,654	67.04%	8,912,938
WP 4	Purchases	2,029,948	66.16%	1,343,014
WP 4	QF Energy	58,754,197	66.16%	38,871,777
WP 4	QF Capacity	14,874,084	67.04%	9,971,063
WP 4	Allocated Economic Purchase cost	9,109,705	66.16%	6,026,981
		161,931,154		107,380,554
<b>E-7 Sub 1163</b>				
	Purchases for REPS Compliance	76,265,967	65.58%	50,015,221
	Purchases for REPS Compliance Capacity	16,389,786	66.39%	10,881,179
	Purchases	1,354,014	65.58%	887,962
	QF Energy	59,741,306	65.58%	39,178,348
	QF Capacity	13,954,158	66.39%	9,264,165
	Allocated Economic Purchase cost	29,753,184	65.58%	19,512,138
		197,458,415		129,739,014



		2017													
		Jan17	Feb17	Mar17	Apr17	May17	June 17	July17	Aug17	Sept17	Oct17	Nov17	Dec17		
System kWh Sales - Sch 4 - Adjusted		7,537,708.015	6,554,206.632	6,358,740.783	7,141,766.120	5,990,726.291	7,358,183.606	8,217,316.035	8,146,356.880	7,638,553.967	6,677,440.733	6,414,671.902	7,061,739.900	85,327,453.884	23,426,608
NC Retail kWh Sales - Sch 4		4,974,781.150	4,009,516.555	4,161,725.776	4,712,571.814	3,804,975.476	4,858,493.561	5,393,164.664	5,434,256.910	5,082,625.773	4,373,336.154	4,109,859.450	4,613,033.555	56,012,258.688	56,012,258.688
NC Retail % of Sales, Adjusted (Calc)		66.00%	67.28%	65.45%	65.99%	64.49%	65.78%	65.63%	65.90%	66.56%	65.54%	63.88%	65.32%	65.00%	65.00%
Net retail production plant %	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%
Fuel and Fuel related component of purchased power															
System Actual \$ - Sch 3 Fuel:		\$ 14,417,669	\$ 16,876,907	\$ 10,096,048	\$ 8,193,583	\$ 9,721,355	\$ 10,071,142	\$ 12,076,892	\$ 14,840,029	\$ 18,293,888	\$ 17,656,690	\$ 22,489,329	\$ 25,927,577	\$ 181,370,739	
System Actual \$ - Sch 3 Fuel-related: Economic Purchases		\$ 2,015,378	\$ 1,988,483	\$ 1,432,270	\$ 946,815	\$ 1,096,073	\$ 1,076,835	\$ 1,880,095	\$ 2,503,480	\$ 1,906,964	\$ 2,131,832	\$ 2,815,342	\$ 3,654,563	\$ 23,426,608	
System Actual \$ - Sch 3 Fuel-related: Purchased Power for NEPS Compliance		\$ 2,453,055	\$ 2,550,377	\$ 3,307,655	\$ 4,004,976	\$ 3,816,768	\$ 4,201,618	\$ 4,200,868	\$ 4,332,085	\$ 3,902,317	\$ 3,805,061	\$ 3,655,861	\$ 2,991,372	\$ 43,661,653	
System Actual \$ - Sch 3 Fuel-related: SC DERP									\$ 18,313	\$ 242	\$ 215	\$ 208	\$ 147	\$ 17,691	
System Actual \$ - Sch 3 Fuel-related: HB589 purpa Purchases									\$ 2,942,327	\$ 2,459,473	\$ 2,447,053	\$ 2,384,629	\$ 2,150,322	\$ 12,384,414	
Total System Economic & QPS		\$ 16,946,102	\$ 21,415,617	\$ 14,837,013	\$ 13,183,374	\$ 14,633,135	\$ 15,449,595	\$ 18,207,855	\$ 24,609,608	\$ 27,262,832	\$ 26,030,651	\$ 31,345,609	\$ 34,724,791	\$ 260,635,343	
Less:															
Native Load Transfer, Native Load Transfer Benefit & DE - Progress fees		\$ 10,083,635	\$ 13,734,418	\$ 7,350,149	\$ 6,093,895	\$ 7,828,909	\$ 6,972,202	\$ 9,238,031	\$ 11,761,966	\$ 17,002,258	\$ 15,515,603	\$ 18,675,689	\$ 20,326,204	\$ 144,615,679	
Total System Economic \$ without Native Load Transfers		\$ 6,862,467	\$ 7,681,199	\$ 7,486,864	\$ 7,089,479	\$ 6,804,227	\$ 8,476,393	\$ 8,924,824	\$ 12,847,642	\$ 10,259,674	\$ 10,515,048	\$ 12,669,920	\$ 14,398,587	\$ 116,019,664	
NC Actual \$(Calc)		\$ 5,862,290	\$ 5,167,630	\$ 4,906,615	\$ 4,674,111	\$ 4,387,622	\$ 5,575,614	\$ 5,857,513	\$ 8,456,652	\$ 6,815,506	\$ 6,892,044	\$ 8,283,499	\$ 9,405,725	\$ 76,294,410	
Billed rate (CAV/b):	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.0868	0.0868	0.0868	0.0868	0.0868	
Billed \$:		\$ 5,343,741	\$ 4,736,553	\$ 4,470,385	\$ 5,061,086	\$ 4,687,123	\$ 5,218,829	\$ 5,793,154	\$ 5,837,295	\$ 4,414,019	\$ 3,798,034	\$ 3,642,167	\$ 4,006,205	\$ 56,409,592	
(Over)/Under \$:		\$ 518,549	\$ 431,076	\$ 436,230	\$ (387,975)	\$ 300,499	\$ 356,785	\$ 64,368	\$ 2,692,158	\$ 2,401,287	\$ 3,094,010	\$ 4,641,322	\$ 5,399,519	\$ 19,884,818	
Capacity component of purchased power															
System Actual \$ - Capacity component of Cherokee County Cogen Purchases		\$ 419,234	\$ 419,233	\$ 209,616	\$ 209,616	\$ 314,425	\$ 1,352,507	\$ 3,144,216	\$ 3,144,216	\$ 628,850	\$ 209,616	\$ 209,616	\$ 209,616	\$ 10,480,821	
System Actual \$ - Capacity component of Purchased Power for NEPS Compliance		\$ 392,592	\$ 412,586	\$ 456,453	\$ 533,339	\$ 448,230	\$ 522,270	\$ 2,084,627	\$ 1,341,938	\$ 1,167,715	\$ 1,069,000	\$ 326,038	\$ 234,318	\$ 4,139,689	
System Actual \$ - Capacity component of HB589 Purpa QF purchases									\$ 14,510	\$ 89	\$ 101	\$ 37	\$ 22	\$ 14,511	
System Actual \$ - Sch 2 PG 1.1ANNUAL VIEW		\$ 811,202	\$ 831,819	\$ 666,069	\$ 742,955	\$ 757,715	\$ 1,884,777	\$ 5,328,873	\$ 6,517,869	\$ 3,693,266	\$ 2,963,235	\$ 1,055,141	\$ 818,890	\$ 25,871,735	
NC Actual \$(Calc)		\$ 544,694	\$ 558,108	\$ 446,898	\$ 456,485	\$ 506,388	\$ 1,364,590	\$ 3,508,308	\$ 4,372,632	\$ 2,477,994	\$ 1,980,180	\$ 707,946	\$ 549,501	\$ 17,425,214	
Billed rate (CAV/b):	0.0204	0.0204	0.0204	0.0204	0.0204	0.0204	0.0204	0.0204	0.0204	0.0241	0.0241	0.0241	0.0241	0.0241	
Billed \$:		\$ 1,014,183	\$ 899,945	\$ 848,429	\$ 986,228	\$ 775,691	\$ 999,476	\$ 1,099,476	\$ 1,110,254	\$ 1,226,785	\$ 1,055,585	\$ 1,012,455	\$ 1,113,442	\$ 12,103,858	
(Over)/Under \$:		\$ (469,488)	\$ (360,837)	\$ (401,531)	\$ (462,243)	\$ (267,302)	\$ 274,114	\$ 2,408,832	\$ 3,294,786	\$ 1,251,109	\$ 932,555	\$ (384,329)	\$ (563,941)	\$ 5,373,855	
TOTAL (Over)/Under \$:														\$ 25,205,674	

**DUKE ENERGY CAROLINAS**

**North Carolina Annual Fuel and Fuel Related Expense**

**Actual Sales by Jurisdiction - Subject to Weather**

**Twelve Months Ended December 31, 2018**

**Docket E-7, Sub 1190**

**MWhs**

**McGee Workpaper 11**

Line #	Description	Reference	NORTH CAROLINA	SOUTH CAROLINA	Retail TOTAL COMPANY	% NC	% SC
1	Residential	Company Records	22,763,029	6,953,474	29,716,503	76.60	23.40
2	Total General Service	Company Records	24,162,007	5,800,354	29,962,361		
3	less Lighting and Traffic Signals		261,740	44,385	306,125		
4	General Service subject to weather		23,900,267	5,755,969	29,656,236	80.59	19.41
5	Industrial	Company Records	12,555,667	9,164,704	21,720,370	57.81	42.19
6	Total Retail Sales	1+2+5	59,480,703	21,918,532	81,399,234		
7	Total Retail Sales subject to weather	1+4+5	59,218,963	21,874,146	81,093,109	73.03	26.97

This does not exclude Greenwood and includes the impact of SC DERP net metering generation

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**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Weather Normalization Adjustment**  
**Twelve Months Ended December 31, 2018**  
**Docket E-7, Sub 1190**

McGee Workpaper 12  
 Page 1

Line #	Description	REFERENCE	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
	<u>Residential</u>						
1	Total Residential		(1,185,150)	76.60	(907,825)	23.40	(277,325)
	<u>General Service</u>						
2	Total General Service		(790,151)	80.59	(636,783)	19.41	(153,368)
	<u>Industrial</u>						
3	Total Industrial		(181,656)	57.81	(105,015)	42.19	(76,641)
4	Total Retail	L1+ L2+ L3	(2,156,957)		(1,649,623)		(507,334)
5	Wholesale		(120,731)				
6	Total Company	L4 + L5	<u>(2,277,688)</u>		<u>(1,649,623)</u>		<u>(507,334)</u>

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Weather Normalization Adjustment by Class by Month  
Twelve Months Ended December 31, 2018  
Docket E-7, Sub 1190

McGee Workpaper 12  
Page 2

	Residential	Commercial	Industrial	
2018	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	
JAN	(218,136)	(35,856)	-	
FEB	(21,771)	(2,405)	(1,317)	
MAR	297,124	-	-	
APR	(74,206)	(16,924)	41,146	
MAY	7,286	(10,553)	3,908	
JUN	(349,703)	(195,436)	(108,358)	
JUL	(226,914)	(108,742)	(35,233)	
AUG	51,266	25,765	13,164	
SEP	(130,432)	(533,537)	(522,476)	
OCT	(295,132)	119,399	432,355	
NOV	(13,417)	(2,573)	(4,846)	
DEC	(211,114)	(29,290)	-	
Total	(1,185,150)	(790,151)	(181,656)	(2,156,957)

Wholesale			
2018	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	(60,423)	1	Concord
FEB	54,716	2	Dallas
MAR	(36,354)	3	Forest City
APR	4,476	4	Kings Mountain
MAY	(9,856)	5	Due West
JUN	(30,811)	6	Prosperity
JUL	(5,051)	7	Lockhart
AUG	8,937	8	Western Carolina University
SEP	(26,557)	9	City of Highlands
OCT	1,983	10	Haywood
NOV	(390)	11	Piedmont
DEC	(21,401)	12	Rutherford
		13	Blue Ridge
Total	(120,731)	14	Greenwood

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Jun 27 2019

Line	Estimation		NC	SC	Wholesale	Total Company
	Method <sup>1</sup>	Rate Schedule	Proposed KWH <sup>1</sup>	Proposed KWH	Proposed KWH	
1	Regression	Residential	188,586,837	70,684,402		
2						
3		General Service (excluding lighting):				
4	Customer	General Service Small and Large	(36,464,624)	(6,608,226)		
	Regression	T2 Flood Lighting/Outdoor Lighting	-	-		
5	Regression	Miscellaneous	(127,805)	272,435		
6		Total General	(36,592,429)	(6,335,791)		
7						
8		Lighting:				
9	Regression	T & T2 (GL/FL/PL/OL) <sup>2</sup>	(1,092,054)	1,005,314		
10	Regression	TS	40,545	(8,749)		
11		Total Lighting	(1,051,509)	996,565		
12						
13		Industrial:				
14	Customer	I - Textile	4,245,005	4,245,005		
15	Customer	I - Nontextile	47,195	3,163,678		
16		Total Industrial	4,292,201	7,408,683		
17						
18						
19		Total	155,235,100	72,753,859	81,154,151	309,143,111
					WP 13-2	

Notes:

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

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

"Customer" refers to the use of the Customer by Customer approach. See ND330 for further explanation

<sup>2</sup>T and T2 were combined due to North Carolina's FL & GL schedules being merged into OL & PL during the 12 month period.

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Customer Growth Adjustment to kWh Sales-Wholesale  
Twelve Months Ended December 31, 2018  
Docket E-7, Sub 1190

McGee Workpaper 13  
Page 2

Calculation of Customer Growth Adjustment to KWH Sales - Wholesale

Line No.	Reference	
1 Total System Resale (kWh Sales)	Company Records	11,246,967,907
2 Less Intersystem Sales	Schedule 1	<u>1,945,444,289</u>
3 Total KWH Sales Excluding Intersystem Sales	L1 - L2	9,301,523,618
4 Residential Growth Factor	Line 8	<u>0.8725</u>
5 Adjustment to KWH's - Wholesale	L3 * L4 / 100	<u><u>81,154,151</u></u>
6 Total System Retail Residential kWh Sales	Company Records	29,716,502,591
7 2018 Proposed Adjustment KWH - Residential (NC+SC)	WP 13 1	259,271,239
8 Percent Adjustment	L7 / L6 * 100	0.8725

"RAC001": CarolinasOperating Revenue Report

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Coal Inventory Rider True-up Calculation**  
**Docket E-7, Sub 1190**

Line No.		August	September	October	November	December	January	Total to Date
1	Full Load Burn 35 day supply							
2	Beginning Actual tons on hand	2,209,515	2,209,515	2,209,515				175,090
3	(Including Terminals and In-Transit) - actual							66,6244%
4	Ending Actual tons on hand	2,349,694	2,356,042	2,344,622				116,653
5	(Including Terminals and In-Transit) - actual							81,827
6	Average tons on hand	2,356,042	2,344,622	2,347,399				0.14%
7	Coal tons in excess of 35 days	2,352,668	2,300,332	2,296,010				0.14%
8	Price per ton	143,353	90,817	86,495				114
9	Number of days supply	73.23	73.23	73.23				81,712
10	Carrying cost percentage	10,497,741	6,650,537	6,335,064				34,940
11	Total system amount to recover	0.745623%	0.745623%	0.745623%				34,940
12	NC allocation percentage	78,274	49,588	47,228				66,6244%
13	Total NC actual amount to recover	52,149	33,038	31,466				116,653
14	GRT & Reg. Fee percentage	8,997	24,938	19,962				81,827
15	GRT and Reg Fee % To Back-Out	13	35	26				0.14%
16	Rider Excluding GRT & Reg Fee	8,984	24,903	19,936				114
17	(Over)/Under Collected - at current tax rate	43,165	8,135	12,530				81,712
18	(Over)/Under Collected - at future tax rate	43,016	8,107	12,486				34,940
19	(a) Carrying costs exclude gross receipts tax and regulatory fee.							34,940
20	(b) Revised to reflect current state income tax apportionment percentages.							34,940

**Notes:**

[illegible]

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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, projected renewable capacity, 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 determine 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, projected renewable capacity, 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 CAROLINAS**  
**Summary of Coal Purchases**  
**Twelve Months Ended December 31, 2018 & 2017**  
**Tons**

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>Contract</u> <u>(Tons)</u>	<u>Net Spot</u> <u>Purchase and</u> <u>Sales(Tons)</u>	<u>Total</u> <u>(Tons)</u>
1	January 2018	453,756	60,390	514,146
2	February	770,299	-	770,299
3	March	818,185	48,963	867,148
4	April	728,025	13,269	741,294
5	May	712,466	11,116	723,582
6	June	683,250	37,208	720,458
7	July	717,234	149,366	866,600
8	August	678,523	221,949	900,470
9	September	564,680	218,860	783,537
10	October	387,121	95,651	482,771
11	November	349,180	53,825	403,003
12	December	483,536	96,525	580,061
<b>13</b>	<b>Total (Sum L1:L12)</b>	<b>7,346,255</b>	<b>1,007,122</b>	<b>8,353,369</b>

.Line

<u>No.</u>	<u>Month</u>	<u>Contract</u> <u>(Tons)</u>	<u>Net Spot</u> <u>Purchase and</u> <u>Sales(Tons)</u>	<u>Total</u> <u>(Tons)</u>
14	January 2017	492,404	285,634	778,038
15	February	769,679	34,968	804,647
16	March	797,907	47,438	845,345
17	April	762,700	122,152	884,852
18	May	616,088	196,451	812,539
19	June	587,819	212,158	799,977
20	July	824,226	96,829	921,055
21	August	807,076	179,219	986,295
22	September	678,951	105,441	784,392
23	October	505,295	95,857	601,152
24	November	415,136	58,617	473,753
25	December	593,868	47,389	641,257
<b>26</b>	<b>Total (Sum L14:L25)</b>	<b>7,851,149</b>	<b>1,482,153</b>	<b>9,333,302</b>



DUKE ENERGY CAROLINAS  
Summary of Gas Purchases  
Twelve Months Ended December 31, 2018 & 2017  
MBTUs

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
1	January 2018	6,638,156
2	February	6,512,143
3	March	10,050,310
4	April	10,537,626
5	May	10,067,211
6	June	12,715,364
7	July	15,647,875
8	August	12,892,804
9	September	12,377,677
10	October	10,303,322
11	November	11,867,520
12	December	9,183,559
<b>13</b>	<b>Total (Sum L1:L12)</b>	<b>128,793,567</b>

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
14	January 2017	6,197,082
15	February	6,087,279
16	March	6,952,395
17	April	4,229,605
18	May	6,556,798
19	June	6,420,642
20	July	7,915,859
21	August	7,227,606
22	September	6,912,715
23	October	7,406,015
24	November	8,220,853
25	December	6,709,366
<b>26</b>	<b>Total (Sum L14:L26)</b>	<b>80,836,215</b>

*I/A*  
*Filed*  
*under*  
*Seal*  
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**JUN 27 2019**

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

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

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**ERIC S. GRANT CONFIDENTIAL EXHIBIT 3**

**FILED UNDER SEAL**

**FEBRUARY 26, 2019**

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

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

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**STEVEN D. CAPPS CONFIDENTIAL EXHIBIT 1**

**FILED UNDER SEAL**

**FEBRUARY 26, 2019**

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*Filed under*  
*seal*

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JUN 27 2019

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Summary Comparison of Fuel and Fuel Related Cost Factors  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Supplemental  
REVISED McGee Exhibit 1

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
<b><u>Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)</u></b>						
1	Approved Fuel and Fuel Related Costs Factors	Input	1.7003	1.8314	1.8020	1.7769
2	EMF Increment	Input	0.0980	0.1068	0.2213	0.1290
3	EMF Interest Decrement cents/kWh	Input	0.0000	0.0000	0.0000	0.0000
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	1.7983	1.9382	2.0233	1.9059
<b><u>Fuel and Fuel Related Cost Factors Required by Rule R8-55</u></b>						
5	Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales	Exh 2 Sch 2 pg 2	1.9841	2.0766	2.1267	2.0548
6	NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales	Exh 2 Sch 3 pg 2	2.0167	2.0973	2.1369	2.0768
<b><u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%</u></b>						
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.8092	1.8986	1.8552	1.8574
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0483	0.0251	0.0208	0.0327
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	1.8575	1.9237	1.8760	1.8901
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1124	0.1396	0.2366	0.1501
11	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.0000	0.0000	0.0000	0.0000
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	1.9699	2.0633	2.1126	2.0402

Note: Fuel factors exclude regulatory fee

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## DUKE ENERGY CAROLINAS

North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Fuel and Fuel Related Cost Factors Using:  
 Proposed Nuclear Capacity Factor of 92.95%  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

McGee Exhibit 2  
 Schedule 1  
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Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Workpaper 3 & 4	18,355,203	3.1057	570,050,837
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9			24,959,649
5	Total Fossil	Sum	39,176,820		1,098,194,572
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,785,509		1,455,692,040
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum Lines 10-12	83,018,229		1,346,517,369
14	Purchased Power	Workpaper 3 & 4	9,280,339	3.1771	294,841,746
15	JDA Savings Shared	Workpaper 5			19,972,407
16	Total Purchased Power		9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568	1.8000	1,661,331,522
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)	2.4698	(16,986,301)
19	Line losses and Company use	Line 21-Line 17-Line 18	(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,644,345,221
21	Projected System MWh Sales for Fuel Factor	Workpaper 7	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.8848

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 1  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7	21,397,068	23,381,644	12,939,285	57,717,997
<b>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8092	1.8986	1.8552	1.8574
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8575	1.9237	1.8760	1.8901
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1124	0.1396	0.2366	0.1501
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	1.9699	2.0633	2.1126	2.0402

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 1  
Page 3 of 3

Line #	Rate Class	Projected Billing Period MWh Sales A	Annual Revenue at Current rates B	Allocate Fuel Costs Increase/(Decrease) to Customer Class C	Increase/(Decrease) as % of Annual Revenue at Current Rates D	Total Fuel Rate Increase/(Decrease) E If D=0 then 0 if not then (C*100)/(A*1000)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 F	Proposed Total Fuel Rate (including Capacity and EMF) G
		Workpaper 7	Workpaper 8	Line 25 as a % of Column B	C / B		McGee Exhibit 1	E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 36,718,999	1.68%	0.1716	1.7983	1.9699
2	General Service/Lighting	23,381,644	1,738,716,194	29,242,128	1.68%	0.1251	1.9382	2.0633
3	Industrial	12,939,285	687,001,167	11,554,143	1.68%	0.0893	2.0233	2.1126
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 77,515,270	1.68%			
<b>Total Proposed Composite Fuel Rate:</b>								
5	Total Fuel Costs for Allocation	Workpaper 7	\$ 1,648,542,239					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	28,169,738					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,620,372,501					
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7	87,243,844					
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
10	Allocation %	Line 9 / Line 8	66.16%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,072,038,447					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 1, Page 2	18,884,001					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,090,922,448					
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.8901					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1501					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.0402					
<b>Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</b>								
19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769					
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290					
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.9059					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1343					
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 77,515,270					

Note: Rounding differences may occur

## DUKE ENERGY CAROLINAS

North Carolina Annual Fuel and Fuel Related Expense

Calculation of Fuel and Fuel Related Cost Factors Using:

Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales

Test Period Ended December 31, 2018

Billing Period September 2019 - August 2020

Docket E-7, Sub 1190

REVISED McGee Exhibit 2

Schedule 2

Page 1 of 3

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Calculated	19,611,529	3.1057	609,068,093
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,433,146		1,137,211,828
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation		184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	100,041,835		1,494,709,296
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum	84,274,555		1,385,534,625
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	93,554,894		1,700,348,778
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,683,362,477
21	Normalized Test Period MWh Sales	Exhibit 4	88,500,170		88,500,170
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9021

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 2  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Normalized Test Period MWh Sales	Exhibit 4	22,043,791	23,564,462	12,465,801	58,074,054
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0468	0.0249	0.0216	0.0325
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8249	1.9121	1.8685	1.8722
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0468	0.0249	0.0216	0.0325
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8717	1.9370	1.8901	1.9047
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1124	0.1396	0.2366	0.1501
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 2 Page 3	1.9841	2.0766	2.1267	2.0548

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 2  
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Line #	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/(Decrease) as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	D	E	F	G
		Exhibit 4	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential	22,043,791	\$ 2,183,285,633	\$ 40,961,930	1.88%	0.1858	1.7983	1.9841
2	General Service/Lighting	23,564,462	\$ 1,738,716,194	\$ 32,621,096	1.88%	0.1384	1.9382	2.0766
3	Industrial	12,465,801	\$ 687,001,167	\$ 12,889,240	1.88%	0.1034	2.0233	2.1267
4	NC Retail	58,074,054	\$ 4,609,002,994	\$ 86,472,266				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7a	\$ 1,687,559,495
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	28,169,738
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,659,389,757
8	Normalized Test Period System MWh Sales for Fuel Factor	Workpaper 7a	88,629,309
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,074,054
10	Allocation %	Line 9 / Line 8	65.52%
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,087,232,168
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 2, Page 2	18,884,001
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,106,116,170
14	NC Retail Normalized Test Period MWh Sales	Line 4	58,074,054
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9047
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1501
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000
18	Total Proposed Composite Fuel Rate	Sum	2.0548

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000
22	Total Current Composite Fuel Rate	Sum	1.9059
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1489
24	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,074,054
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 86,472,266

Note: Rounding differences may occur

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## DUKE ENERGY CAROLINAS

North Carolina Annual Fuel and Fuel Related Expense

NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales

Test Period Ended December 31, 2018

Billing Period September 2019 - August 2020

Docket E-7, Sub 1190

McGee Exhibit 2

Schedule 3

Page 1 of 3

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 2	56,739,499	0.6115	346,981,926
2	Coal	Calculated	19,636,789	3.1057	609,852,590
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,458,406		1,137,996,325
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,347,563		1,484,978,251
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Calculated	(14,450,934)		(88,383,179)
13	Net Generation	Sum	83,018,229		1,378,482,097
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568		1,693,296,250
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,676,309,949
21	Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9214

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 2  
Schedule 3  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7b	21,397,068	23,381,644	12,939,285	57,717,997
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<u>Amount</u>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				\$ 14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8560	1.9326	1.8795	1.8940
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.9043	1.9577	1.9003	1.9267
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1124	0.1396	0.2366	0.1501
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	2.0167	2.0973	2.1369	2.0768

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 2  
Schedule 3  
Page 3 of 3

Line #	Rate Class	Projected Billing Period MWh Sales A	Annual Revenue at Current rates B	Allocate Fuel Costs Increase/(Decrease) to Customer Class C	Increase/Decrease as % of Annual Revenue at Current Rates C / B = D	Total Fuel Rate Increase/(Decrease) E If D=0 then 0 If not then (C*100)/(A*1000)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 F McGee Exhibit 1	Proposed Total Fuel Rate (including Capacity and EMF) G E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 46,725,815	2.14%	0.2184	1.7983	2.0167
2	General Service/Lighting	23,381,644	\$ 1,738,716,194	\$ 37,211,315	2.14%	0.1591	1.9382	2.0973
3	Industrial	12,939,285	\$ 687,001,167	\$ 14,702,927	2.14%	0.1136	2.0233	2.1369
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 98,640,057				
<b>Total Proposed Composite Fuel Rate:</b>								
5	Total Fuel Costs for Allocation	Workpaper 7b	\$ 1,680,506,966					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	28,169,738					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,652,337,228					
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844					
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
10	Allocation %	Line 9 / Line 8	66.16%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,093,186,310					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 3, Page 2	18,884,001					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,112,070,311					
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9267					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1501					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.0768					
<b>Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</b>								
19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769					
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290					
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.9059					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1709					
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
25	Increase/(Decrease) in Fuel Costs --	Line 23 * Line 24 * 10 -	\$ 98,640,057					

Note: Rounding differences may occur

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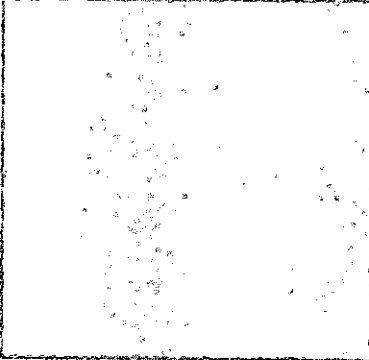
DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Proposed Composite  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

*Supplemental*

Revised McGee Exhibit 3  
Page 1 of 4

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JUN 27 2019

Line No.	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018			5,733,820	\$ 70,210,460
2	February			5,031,181	\$ (21,289,748)
3	March(1)			4,190,094	\$ 4,767,793
4	April(1)			4,416,566	\$ (13,736,437)
5	May			4,252,750	\$ 6,136,829
6	June(1)			5,245,689	\$ 6,622,242
7	July(1)			5,639,361	\$ 14,497,484
8	August			5,409,821	\$ 13,507,110
9	September			6,212,764	\$ (8,995,949)
10	October			4,141,212	\$ 11,156,943
11	November			4,314,713	\$ 11,789,339
12	December			4,892,732	\$ 16,666,116
13	<b>Total Test Period</b>			<b>59,480,703</b>	<b>\$ 111,332,182</b>
14	January 2019			5,021,050	\$ 8,560,193
15	February 2019			5,026,972	\$ 19,998,561
16	March 2019			4,366,364	\$ 925,006
17	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 53,688,503
18	Include Under Recovery related to Coal Inventory Rider				\$ 37,667
19	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 87,165,106</b>
20	NC Retail Normalized Test Period MWh Sales			Exhibit 4	58,074,054
21	Experience Modification Increment (Decrement) cents/kWh				0.1501

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 16.  
Rounding differences may occur

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Residential  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 3  
Page 2 of 4

Line #	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWH Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	2.2454	1.7919	2,747,953	\$ 12,463,615
2	February	1.2214	1.7919	2,101,525	\$ (11,989,284)
3	March <sup>(1)</sup>	1.8936	1.7919	1,546,024	\$ 1,587,096
4	April <sup>(1)</sup>	1.5682	1.7919	1,557,073	\$ (3,469,659)
5	May	2.2261	1.7919	1,361,386	\$ 5,910,833
6	June <sup>(1)</sup>	1.9042	1.7919	1,940,879	\$ 2,162,126
7	July <sup>(1)</sup>	1.9028	1.7919	2,227,922	\$ 2,375,059
8	August	1.9776	1.7885	2,050,040	\$ 3,875,805
9	September	1.7474	1.7894	2,200,376	\$ (925,298)
10	October	2.0726	1.7983	1,554,551	\$ 4,264,193
11	November	2.3435	1.7983	1,436,836	\$ 7,833,590
12	December	1.9167	1.7983	2,038,462	\$ 2,413,589
13	<b>Total Test Period</b>			<b>22,763,029</b>	<b>\$ 26,501,665</b>
14	Test Period Wtd Avg. c/kWh	1.9096	1.7928		
15	January 2019	1.6843	1.7983	2,194,231	\$ (2,476,946)
16	February 2019	1.9667	1.7983	2,094,914	\$ 3,527,711
17	March 2019	1.7655	1.8042	1,704,915	\$ (724,377)
18	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 2,061,427
19	Include Under Recovery related to Coal Inventory Rider				\$ 14,415
20	<b>Adjusted (Over)/Under Recovery</b>				<b>\$ 24,781,042</b>
21	NC Retail Normalized Test Period MWh Sales			Exhibit 4	22,043,791
22	Experience Modification Increment (Decrement) cents/kWh				0.1124

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.  
Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - GS/Lighting  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 3  
Page 3 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	3.5376	1.9253	2,053,224	\$ 33,104,497
2	February	1.5865	1.9253	1,899,154	\$ (6,434,005)
3	March <sup>(1)</sup>	2.0122	1.9253	1,709,988	\$ 1,503,768
4	April <sup>(1)</sup>	1.5762	1.9253	1,819,014	\$ (6,335,002)
5	May	1.9140	1.9253	1,860,965	\$ (210,465)
6	June <sup>(1)</sup>	1.9786	1.9253	2,190,371	\$ 1,145,088
7	July <sup>(1)</sup>	2.1543	1.9253	2,291,796	\$ 5,295,453
8	August	2.1026	1.9219	2,244,902	\$ 4,054,944
9	September	1.6846	1.9256	2,660,685	\$ (6,412,545)
10	October	2.1707	1.9382	1,727,851	\$ 4,018,244
11	November	2.1580	1.9382	1,824,017	\$ 4,009,350
12	December	2.4310	1.9382	1,880,041	\$ 9,264,795
13	<b>Total Test Period</b>			<b>24,162,007</b>	<b>\$ 43,004,122</b>
14	Test Period Wtd Avg. ¢/kWh	2.1057	1.9279		
15	January 2019	2.2307	1.9382	1,936,499	\$ 5,693,461
16	February 2019	2.5196	1.9382	1,911,117	\$ 11,110,540
17	March 2019	2.0159	1.9441	1,744,567	\$ 1,246,918
18	Adjustment remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 28,174,260
19	Include Under Recovery related to Coal Inventory Rider				\$ 15,301
20	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 32,896,080</b>
21	NC Retail Normalized Test Period MWh Sales			Exhibit 4	23,564,462
22	Experience Modification Increment (Decrement) cents/kWh				0.1396

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.

Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Industrial  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 3  
Page 4 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	4.6719	2.0297	932,643	\$ 24,642,348
2	February	1.7515	2.0297	1,030,502	\$ (2,866,460)
3	March <sup>(1)</sup>	2.2081	2.0297	934,082	\$ 1,676,929
4	April <sup>(1)</sup>	1.6509	2.0297	1,040,479	\$ (3,931,775)
5	May	2.0721	2.0297	1,030,399	\$ 436,461
6	June <sup>(1)</sup>	2.3283	2.0297	1,114,438	\$ 3,315,028
7	July <sup>(1)</sup>	2.6319	2.0297	1,119,643	\$ 6,826,972
8	August	2.5265	2.0263	1,114,879	\$ 5,576,360
9	September	1.8991	2.0218	1,351,703	\$ (1,658,106)
10	October	2.3580	2.0233	858,810	\$ 2,874,506
11	November	2.0182	2.0233	1,053,860	\$ (53,600)
12	December	2.5353	2.0233	974,229	\$ 4,987,733
13	<b>Total Test Period</b>			<b>12,555,667</b>	<b>\$ 41,826,395</b>
14	Test Period Wtd Avg. ¢/kWh	2.3595	2.0271		
15	January 2019	2.6216	2.0233	890,321	\$ 5,343,678
16	February 2019	2.5483	2.0233	1,020,942	\$ 5,360,311
17	March 2019	2.0724	2.0292	916,881	\$ 402,464
18	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 23,452,816
19	Include Under Recovery related to Coal Inventory Rider				\$ 7,951
20	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 29,487,982</b>
21	NC Retail Normalized Test Period MWh Sales			Exhibit 4	12,465,801
22	Experience Modification Increment (Decrement) cents/kWh				0.2366

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.  
Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Sales, Fuel Revenue, Fuel Expense and System Peak  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

*Supplemental*  
Revised McGee Exhibit 4

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Line #	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
1	Test Period MWh Sales (excluding inter system sales)	Exhibit 6 Schedule 1 (Line 4)					
2	Customer Growth MWh Adjustment	and Workpaper 11 (NC retail)	90,487,628	59,480,703	22,763,029	24,162,007	12,555,667
3	Weather MWh Adjustment	Workpaper 13 Pg 1	419,697	242,974	188,587	39,238	15,149
4	Total Normalized MWh Sales	Workpaper 12	(2,407,155)	(1,649,623)	(907,825)	(636,783)	(105,015)
		Sum	88,500,170	58,074,054	22,043,791	23,564,462	12,465,801
5	Test Period Fuel and Fuel Related Revenue *		\$ 1,691,073,964	\$ 1,128,424,268			
6	Test Period Fuel and Fuel Related Expense *		\$ 1,852,283,575	\$ 1,239,756,450			
7	Test Period Unadjusted (Over)/Under Recovery		\$ 161,209,611	\$ 111,332,182			

Winter Coincidental  
Peak (CP) kW

8	Total System Peak	18,875,799
9	NC Retail Peak	12,650,981
10	NC Residential Peak	6,917,677
11	NC General Service/Lighting Peak	3,929,002
12	NC Industrial Peak	1,804,302

- \* 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.

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Nuclear Capacity Ratings**  
**Test Period Ended December 31, 2018**  
**Billing Period September 2019 - August 2020**  
**Docket E-7, Sub 1190**

*Supplemental*  
 McGee Exhibit 5 *I/A*

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Unit	Rate Case		Proposed Capacity Rating MW
	Docket E-7, Sub 1146	Fuel Docket E-7, Sub 1163	
Oconee Unit 1	847	847.0	847.0
Oconee Unit 2	848	848.0	848.0
Oconee Unit 3	859	859.0	859.0
McGuire Unit 1	1,158	1158.0	1158.0
McGuire Unit 2	1,158	1157.6	1157.6
Catawba Unit 1	1,160	1160.1	1160.1
Catawba Unit 2	1,150	1150.1	1150.1
Total Company	7,180	7,179.8	7,179.8

*Supplemental*

Revised McGee Exhibit 6

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DECEMBER 2018 MONTHLY FUEL FILING

DUKE ENERGY CAROLINAS  
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1161

Line No.	December 2018	12 Months Ended December 2018
1 Fuel and fuel-related costs	\$ 167,457,560	\$ 1,885,269,344
MWH sales:		
2 Total system sales	7,718,637	92,433,072
3 Less intersystem sales	228,210	1,945,444
4 Total sales less intersystem sales	7,490,427	90,487,628
5 Total fuel and fuel-related costs (¢/KWH) (line 1/line 4)	2.2356	2.0835
6 Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 2a Total)	1.8969	
Generation Mix (MWH):		
Fossil (by primary fuel type):		
7 Coal	1,366,724	22,653,740
8 Fuel Oil	12,042	232,515
9 Natural Gas - Combined Cycle	1,059,332	13,695,555
10 Natural Gas - Combustion Turbine	42,178	2,550,671
11 Natural Gas - Steam	127,536	187,574
12 Biogas	3,259	30,204
13 Total fossil	2,611,071	39,350,259
14 Nuclear 100%	4,981,169	59,936,028
15 Hydro - Conventional	368,610	2,877,050
16 Hydro - Pumped storage	(44,946)	(529,226)
17 Total hydro	323,664	2,347,824
18 Solar Distributed Generation	5,768	130,018
19 Total MWH generation	7,921,672	101,764,129
20 Less joint owners' portion - Nuclear	1,147,290	15,165,371
21 Less joint owners' portion - Combined Cycle	27,377	465,202
22 Adjusted total MWH generation	6,747,005	86,133,556

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

DUKE ENERGY CAROLINAS  
DETAILS OF FUEL AND FUEL-RELATED COSTS

Docket No. E-7, Sub 1161

Fuel and fuel-related costs:	December 2018	12 Months Ended December 2018
0501110 coal consumed - steam	\$ 46,847,568	\$ 675,888,074
0501222-0501223 biomass/test fuel consumed	-	-
0501310 fuel oil consumed - steam	1,223,578	8,586,389
0501330 fuel oil light-off - steam	593,669	7,287,851
Total Steam Generation - Account 501	<u>48,664,815</u>	<u>691,762,314</u>
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	23,069,842	275,311,826
Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	2,272,971	98,161,049
0547100 natural gas consumed - Steam	5,696,114	8,633,545
0547101 natural gas consumed - Combined Cycle	31,773,516	373,047,230
0547106 biogas consumed - Combined Cycle	175,961	1,523,560
0547200 fuel oil consumed - Combustion Turbine	57,020	25,830,495
Total Other Generation - Account 547	<u>39,975,582</u>	<u>507,195,879</u>
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,549,134	27,110,200
Total Reagents	<u>1,549,134</u>	<u>27,110,200</u>
By-products		
Net proceeds from sale of by-products	583,525	6,085,203
Total By-products	<u>583,525</u>	<u>6,085,203</u>
Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	113,842,898	1,507,465,422
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	211,474	10,514,290
Capacity component of purchased power (renewables)	594,915	13,300,661
Capacity component of purchased power (PURPA)	159,399	6,541,261
Fuel and fuel-related component of purchased power	59,686,689	434,709,945
Total Purchased Power and Net Interchange - Account 555	<u>60,652,477</u>	<u>465,066,157</u>
Less:		
Fuel and fuel-related costs recovered through intersystem sales	6,944,585	86,336,253
Fuel in loss compensation	92,474	925,224
Solar integration charge revenue	758	758
Total Fuel Credits - Accounts 447 /456	<u>7,037,817</u>	<u>87,262,235</u>
Total Fuel and Fuel-related Costs	<u>\$ 167,457,560</u>	<u>\$ 1,885,269,344</u>

Notes: Detail amounts may not add to totals shown due to rounding.  
Report reflects net ownership costs of jointly owned facilities.

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

**December 2018**

Purchased Power	Total	Capacity	Non-capacity			
Economic	\$	\$	mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Cherokee County Cogeneration Partners	\$ 1,287,426	\$ 211,474	27,369	\$ 946,407	\$ 129,545	
City of Kings Mountain	8,979	8,979	-	-	-	
DE Progress - Native Load Transfer	27,945,591	-	741,793	23,410,601	4,543,696	\$ (8,706)
DE Progress - Native Load Transfer Benefit	1,156,134	-	-	1,156,134	-	
DE Progress - Fees	(156,964)	-	-	-	(156,964)	
Haywood Electric - Economic	40,903	20,630	336	12,367	7,906	
Macquarie Energy, LLC	6,826,931	-	146,439	4,164,428	2,662,503	
NCEMC - Economic	115,200	-	3,600	70,272	44,928	
NCMPA Instantaneous - Economic	1,813,810	-	53,310	1,088,467	725,343	
NTE Carolinas LLC	3,232,610	-	78,830	1,971,892	1,260,718	
Piedmont Municipal Power Agency	307,201	-	10,960	184,355	122,846	
PJM Interconnection, LLC	11,214,935	-	313,334	6,841,110	4,373,825	
Southern Company Services, Inc.	250,370	-	9,167	152,726	97,644	
Tennessee Valley Authority	95,400	-	2,600	58,804	37,596	
Town of Dallas	584	584	-	-	-	
Town of Forest City	19,856	19,856	-	-	-	
	<u>\$ 54,159,966</u>	<u>\$ 261,523</u>	<u>1,387,738</u>	<u>\$ 40,057,563</u>	<u>\$ 13,849,586</u>	<u>\$ (8,706)</u>
<b>Renewable Energy</b>						
REPS	\$ 4,406,020	\$ 594,902	77,027	\$ -	\$ 3,811,118	\$ -
DERP - Purchased Power	149	13	3	-	136	-
	<u>\$ 4,406,169</u>	<u>\$ 594,915</u>	<u>77,030</u>	<u>\$ -</u>	<u>\$ 3,811,254</u>	<u>\$ -</u>
<b>HB589 PURPA Purchases</b>						
Qualifying Facilities	1,936,441	159,399	37,040	-	1,712,356	64,686
	<u>\$ 1,936,441</u>	<u>\$ 159,399</u>	<u>37,040</u>	<u>\$ -</u>	<u>\$ 1,712,356</u>	<u>\$ 64,686</u>
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 1,244,696	\$ 724,668	26,268	\$ 317,217	\$ 202,811	
Haywood Electric	351,238	152,148	7,201	121,445	77,645	
Macquarie Energy, LLC	957,341	-	12,433	583,978	373,363	
NCEMC - Other	4,398	4,398	-	-	-	
NCMPA	155,400	-	1,110	94,794	60,606	
Piedmont Electric Membership Corp.	592,764	346,426	11,904	150,266	96,072	
Generation Imbalance	1,078,303	-	8,735	242,385	835,918	
Energy Imbalance - Purchases	(277,960)	-	(11,956)	(169,556)	(108,404)	
Energy Imbalance - Sales	(269,174)	-	-	(269,534)	360	
Other Purchases	648	-	19	-	648	
	<u>\$ 3,837,654</u>	<u>\$ 1,227,640</u>	<u>55,714</u>	<u>\$ 1,070,995</u>	<u>\$ -</u>	<u>\$ 1,539,019</u>
<b>Total Purchased Power</b>	<u>\$ 64,340,230</u>	<u>\$ 2,243,477</u>	<u>1,557,522</u>	<u>\$ 41,128,558</u>	<u>\$ 19,373,196</u>	<u>\$ 1,594,999</u>
<b>Interchanges In</b>						
Other Catawba Joint Owners	6,629,878	-	579,425	3,870,366	2,759,512	
WS Lee Joint Owner	1,406,837	-	43,619	1,229,697	177,140	
Total Interchanges In	8,036,714	-	623,044	5,100,063	2,936,651	
						(1)
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(7,985,890)	(134,209)	(695,363)	(4,647,804)	(3,203,877)	
Catawba- Net Negative Generation	(66,943)	-	(2,964)	(51,150)	(15,793)	
WS Lee Joint Owner	(1,402,174)	-	(42,514)	(1,216,174)	(186,000)	
Total Interchanges Out	(9,455,007)	(134,209)	(740,841)	(5,915,128)	(3,405,670)	
<b>Net Purchases and Interchange Power</b>	<u>\$ 62,921,937</u>	<u>\$ 2,109,268</u>	<u>1,439,725</u>	<u>\$ 40,313,493</u>	<u>\$ 19,373,196</u>	<u>\$ 1,125,979</u>

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

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DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEW

DECEMBER 2018

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	\$ 19,312	-	475	\$ 16,530	\$ 2,782
SC Electric & Gas - Emergency	22,373	-	383	21,699	674
<b>Market Based:</b>					
NCMPA	110,344	\$ 87,568	392	22,919	(143)
PJM Interconnection, LLC.	69	-	-	-	69
SC Electric & Gas	2,050	-	-	-	2,050
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	287,133	-	-	287,133	-
DE Progress - Native Load Transfer	8,259,541	-	225,840	6,529,920	1,729,621
Generation Imbalance	76,917	-	1,120	66,384	10,533
BPM Transmission	(67,517)	-	-	-	(67,517)
<b>Total Intersystem Sales</b>	<b>\$ 8,710,222</b>	<b>\$ 87,568</b>	<b>228,210</b>	<b>\$ 6,944,585</b>	<b>\$ 1,678,069</b>

\* Sales for resale other than native load priority.

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



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

**Twelve Months Ended  
December 2018**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$
Economic	\$	\$				Not Fuel-related \$
Cherokee County Cogeneration Partners	\$ 31,713,488	\$ 10,514,290	536,248	\$ 18,602,696	\$ 2,596,502	
City of Kings Mountain	107,748	107,748	-	-	-	
DE Progress - Native Load Transfer	194,410,960	-	5,426,920	174,475,494	19,671,245	\$ 264,221
DE Progress - Native Load Transfer Benefit	13,751,828	-	-	13,751,828	-	
DE Progress - Fees	(1,093,167)	-	-	-	(1,093,167)	
EDF Trading North America, LLC.	76,115	-	3,005	46,430	29,685	
Exelon Generation Company, LLC.	118,087	-	4,060	72,034	46,053	
Haywood Electric - Economic	487,779	251,870	5,097	143,904	92,005	
Macquarie Energy, LLC	29,508,026	-	770,088	17,999,896	11,508,130	
Morgan Stanley Capital Group	24,839	-	1,112	15,152	9,687	
NCEMC	169,200	-	5,490	103,212	65,988	
NCMPA	4,490,834	-	71,519	3,053,238	1,437,596	
NCMPA Load Following Economic	16,007,553	-	506,485	10,121,981	5,885,572	
NTE Carolinas LLC	7,004,810	-	195,650	4,272,935	2,731,875	
Piedmont Municipal Power Agency	2,609,446	-	88,744	1,680,985	928,461	
PJM Interconnection, LLC.	51,171,173	-	864,902	31,214,417	19,956,756	
Rainbow Energy Marketing Corporation	87,525	-	3,285	53,390	34,135	
South Carolina Electric & Gas Company	212,527	-	4,600	127,811	84,716	
Southern Company Services, Inc.	1,289,556	-	45,702	786,630	502,926	
Tennessee Valley Authority	1,603,241	-	30,841	977,977	625,264	
The Energy Authority	38,483	-	1,167	23,475	15,008	
Town of Dallas	7,008	7,008	-	-	-	
Town of Forest City	238,272	238,272	-	-	-	
	\$ 354,035,331	\$ 11,119,188	8,564,916	\$ 277,523,485	\$ 65,128,437	\$ 264,221
<b>Renewable Energy</b>						
REPS	\$ 63,156,850	\$ 13,329,597	974,338	\$ -	\$ 49,827,253	\$ -
DERP - Purchased Power	2,713	565	49	-	2,148	
DERP - Net Metered Generation	43,550	7,964	15	-	-	35,586
	\$ 63,203,112	\$ 13,338,125	974,403	\$ -	\$ 49,829,401	\$ 35,586
<b>HB569 PURPA Purchases</b>						
Qualifying Facilities	\$ 33,029,557	\$ 6,511,759	550,930	\$ -	\$ 25,435,460	\$ 1,082,338
	\$ 33,029,557	\$ 6,511,759	550,930	\$ -	\$ 25,435,460	\$ 1,082,338
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 14,972,210	\$ 8,136,773	295,129	\$ 4,169,615	\$ -	\$ 2,665,822
Haywood Electric	4,208,307	1,935,370	80,216	1,385,271	885,666	
Macquarie Energy, LLC	18,266,985	-	307,544	11,142,861	7,124,124	
NCEMC - Other	647,276	52,776	6,570	362,645	231,855	
NCMPA - Reliability	245,400	-	2,610	149,694	95,706	
NTE Carolinas LLC	1,828,310	-	36,855	1,115,269	713,041	
Piedmont Electric Membership Corp.	7,179,987	3,902,138	140,568	1,999,488	1,278,361	
South Carolina Electric & Gas Company	131,734	-	1,400	80,358	51,376	
Southern Company Services, Inc.	2,984,720	-	47,510	1,820,679	1,164,041	
Generation Imbalance	3,782,664	-	82,265	1,893,961	1,888,703	
Energy Imbalance - Purchases	2,199,376	-	25,123	1,350,748	848,628	
Energy Imbalance - Sales	(1,765,005)	-	-	(6,529,253)	4,764,248	
Other Purchases	12,518	-	352	-	12,518	
	\$ 54,692,482	\$ 14,027,057	1,026,162	\$ 18,941,336	\$ -	\$ 21,724,089
<b>Total Purchased Power</b>	<b>\$ 504,960,482</b>	<b>\$ 44,996,129</b>	<b>11,116,400</b>	<b>\$ 296,464,821</b>	<b>\$ 140,393,298</b>	<b>\$ 23,106,234</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	91,135,514	-	7,642,809	56,961,998	-	34,173,516
WS Lee Joint Owner	7,725,713	-	271,306	6,611,033	-	1,114,680
Total Interchanges In	98,861,227	-	7,914,116	63,573,032	-	35,288,195
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(93,139,372)	(1,580,207)	(7,784,646)	(57,610,256)	-	(33,948,909)
Catawba- Net Negative Generation	(231,152)	-	(11,304)	(180,241)	-	(50,911)
WS Lee Joint Owner	(9,390,983)	-	(327,441)	(7,930,708)	-	(1,460,275)
Total Interchanges Out	(102,761,507)	(1,580,207)	(8,123,391)	(65,721,205)	-	(35,460,095)
<b>Net Purchases and Interchange Power</b>	<b>\$ 501,060,202</b>	<b>\$ 43,415,922</b>	<b>10,907,125</b>	<b>\$ 294,316,648</b>	<b>\$ 140,393,298</b>	<b>\$ 22,934,334</b>

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

**DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended  
DECEMBER 2018**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
DE Progress - Emergency	\$ 15,390	-	333	\$ 13,113	\$ 2,277
SC Public Service Authority - Emergency	2,315,135	\$ 224,000	7,527	2,007,790	83,345
SC Electric & Gas - Emergency	103,368 A	- A	1,974	87,826	15,542
<b>Market Based:</b>					
Central Electric Power Cooperative, Inc.	2,793,800 B	2,793,800 B	-	-	-
EDF Trading Company	2,600	-	50	1,976	624
Macquarie Energy, LLC	19,200	-	-	-	19,200
NCMPA	1,454,481	1,050,069	5,529	368,868	35,544
PJM Interconnection, LLC.	1,502,443	-	24,365	918,000	584,443
SC Electric & Gas	317,950 A	- A	4,050	268,115	49,835
Tennessee Valley Authority	49,525	-	1,025	37,501	12,024
The Energy Authority	55,545	-	604	33,101	22,444
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	5,666,748	-	-	5,666,748	-
DE Progress - Native Load Transfer	78,027,793	-	1,883,308	74,808,327	3,219,466
Generation Imbalance	1,760,829	-	16,679	2,124,888	(364,059)
BPM Transmission	(245,056)	-	-	-	(245,056)
<b>Total Intersystem Sales</b>	<b>\$ 93,839,751</b>	<b>\$ 4,067,869</b>	<b>1,945,444</b>	<b>\$ 86,336,253</b>	<b>\$ 3,435,629</b>

\* Sales for resale other than native load priority.

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

A - Twelve months ended December 2018 includes a correction to reclassify market sales for the month of October 2018 as an emergency sale. The October 2018 sales were as follows: Total dollars = \$24,456, Non capacity MWH = 408, Non-capacity fuel dollars = \$20,096, and Non-capacity non-fuel dollars = \$3,550.

B - Twelve months ended December 2018 includes a correction to include market capacity sales for the period January 2018 - October 2018. Market capacity sales each month were as follows: Total dollars = \$279,380, and capacity dollars = \$279,380. Total market capacity sales dollars for the period January 2018 - October 2018 = \$2,793,800.

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**Duke Energy Carolinas**  
**(Over) / Under Recovery of Fuel Costs**  
**December 2018**

Line No.			Residential	Commercial	Industrial	Total
1	Actual System kWh sales	Input				7,490,426,895
2	DERP Net Metered kWh generation	Input				10,412,429
3	Adjusted System kWh sales	L1 + L2				7,500,839,324
4	N.C. Retail kWh sales	Input	2,038,461,729	1,880,040,961	974,229,470	4,892,732,160
5	NC kWh sales % of actual system kWh sales	L4 T / L1				65.32%
6	NC kWh sales % of adjusted system kWh sales	L4 T / L3				65.23%
7	Approved fuel and fuel-related rates (\$/kWh)					
7a	Billed rates by class (\$/kWh)	Input Annually	1.7983	1.9382	2.0233	1.8969
7b	Billed fuel expense	L7a * L4 / 100	\$36,657,657	\$36,438,954	\$19,711,585	\$92,808,196
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (\$/kWh)					
8a	Docket E-7, Sub 1163 allocation factor	Input	35.64%	41.77%	22.59%	
8b	System incurred expense	Input				\$166,830,104
8c	Incurred base fuel and fuel-related expense	L8b * L6 * 8a	\$38,786,219	\$45,458,159	\$24,577,446	\$108,821,824
8d	Incurred base fuel rates by class (\$/kWh)	L8c / L4 * 100	1.9027	2.4179	2.5228	2.2242
9	Incurred renewable purchased power capacity rates by class (\$/kWh)					
9a	NC retail production plant %	Input				67.56%
9b	Production plant allocation factors	Input	43.68%	37.64%	18.68%	100.00%
9c	System incurred expense	Input				\$965,788
9d	Incurred renewable capacity expense	L9a * L9b * 9c	\$285,027	\$245,590	\$121,872	\$652,488
9e	Incurred renewable capacity rates by class (\$/kWh)	(L9a * L9c) * L9b / L4 * 100	0.0140	0.0131	0.0125	0.0133
10	Total incurred rates by class (\$/kWh)	L8d + L9e	1.9167	2.4310	2.5353	2.2375
11	Difference in \$/kWh (incurred - billed)	L7c - L10	0.1184	0.4928	0.5120	0.3406
12	(Over) / under recovery [See footnote]	(L4 * L11) / 100	\$2,413,589	\$9,264,795	\$4,987,733	\$16,666,116
13	Prior period adjustments	Input				
14	Total (over) / under recovery [See footnote]	L12+ L13	\$2,413,589	\$9,264,795	\$4,987,733	\$16,666,116
15	Total system incurred expense	L8b + L9c				\$167,795,892
16	Less: Jurisdictional allocation adjustment(s)	Input				338,332
17	Total Fuel and Fuel-related Costs per Schedule 2	L15 + L16				\$167,457,560

18 (Over) / under recovery for each month of the current calendar year [See footnote]

Year 2018  
January  
February  
\_1/ March  
\_1/ April  
May  
June  
\_2/ July  
August  
\_2/ September  
\_2/ October  
November  
December

(Over) / Under Recovery					
Total To Date	Residential	Commercial	Industrial	Total Company	
\$70,210,459	\$12,463,615	\$33,104,497	\$24,642,348	\$70,210,459	
48,920,711	(\$11,989,284)	(\$6,434,005)	(\$2,866,460)	(21,289,748)	
53,688,504	\$1,587,096	\$1,503,768	\$1,676,929	4,767,793	
39,952,067	(\$3,469,659)	(\$5,335,002)	(\$3,931,775)	(13,736,437)	
46,088,897	\$5,910,833	(\$210,465)	\$436,461	6,136,830	
52,711,139	\$2,162,126	\$1,145,088	\$3,315,028	6,622,242	
67,208,623	\$2,375,059	\$5,295,453	\$5,826,972	14,497,484	
80,715,732	\$3,875,805	\$4,054,944	\$5,576,360	13,507,109	
71,719,783	(\$925,298)	(\$6,412,545)	(\$1,658,106)	(8,995,949)	
82,876,726	\$4,264,193	\$4,018,244	\$2,874,506	11,156,943	
\$94,666,066	\$7,833,590	\$4,009,350	(\$53,600)	\$11,789,340	
\$111,332,182	\$2,413,589	\$9,264,795	\$4,987,733	\$16,666,116	
	\$26,501,665	\$43,004,122	\$41,826,396	\$111,332,182	

Notes:

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

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

Under collections, or regulatory assets, are shown as positive amounts.

\_1/ Includes prior period adjustments.

\_2/ Reflects a prorated rate and prorated allocation factor for periods in which the approved rates changed.

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**DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018**

Description	Allen Steam	Bolews Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Cost of Fuel Purchased (\$)</b>																
Coal	\$49,933	\$17,907,637			\$8,548,228					\$22,079,739					\$48,585,537	\$657,498,215
Oil	143,133	1,082,966			273,156										1,499,256	48,634,501
Gas - CC			\$13,103,055			\$12,923,682	\$6,858,257								32,884,994	384,692,206
Gas - CT								104,195	\$110,569			\$158,525		\$1,899,682	2,272,971	98,161,049
Gas - Steam					5,695,205			909							5,696,114	8,633,545
Biogas						361,043									361,043	3,466,205
<b>Total</b>	<b>\$193,065</b>	<b>\$18,990,604</b>	<b>\$13,103,055</b>		<b>\$14,516,590</b>	<b>\$13,284,725</b>	<b>\$6,858,257</b>	<b>\$105,103</b>	<b>\$110,569</b>	<b>\$22,079,739</b>		<b>\$158,525</b>		<b>\$1,899,682</b>	<b>\$91,299,914</b>	<b>\$1,201,685,721</b>
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>																
Coal		555.02			687.75					399.01					485.71	324.71
Oil	1,321.84	172.99			692.52										221.68	1,358.88
Gas - CC			442.19			442.08	455.27								442.14	392.80
Gas - CT								532.70	467.48			510.56		457.22	464.11	343.97
Gas - Steam					445.73										464.11	410.58
Biogas						1,577.30									1,577.30	1,603.31
<b>Weighted Average</b>	<b>1,782.98</b>	<b>492.94</b>	<b>442.19</b>		<b>567.03</b>	<b>450.90</b>	<b>455.27</b>	<b>532.60</b>	<b>467.48</b>	<b>399.01</b>		<b>510.56</b>		<b>457.22</b>	<b>459.65</b>	<b>358.68</b>
<b>Cost of Fuel Burned (\$)</b>																
Coal	\$741,089	\$19,525,109			\$12,888,384					\$13,692,987					\$46,847,568	\$675,888,074
Oil - CC																
Oil - Steam/CT	163,523	1,219,227			286,271			25,472	\$25,788	148,226					1,874,266	41,704,735
Gas - CC			\$13,103,055			\$12,923,682	\$6,858,257		\$104,195	110,569					32,884,994	384,692,206
Gas - CT												\$158,525		\$1,899,682	2,272,971	98,161,049
Gas - Steam					5,695,205			909							5,696,114	8,633,545
Biogas						361,043									361,043	3,466,205
Nuclear				\$8,356,486							\$10,990,838		\$10,470,715		29,818,039	370,839,248
<b>Total</b>	<b>\$904,613</b>	<b>\$20,744,336</b>	<b>\$13,103,055</b>	<b>\$8,356,486</b>	<b>\$18,869,860</b>	<b>\$13,284,725</b>	<b>\$6,858,257</b>	<b>\$130,575</b>	<b>\$136,358</b>	<b>\$13,841,212</b>	<b>\$10,990,838</b>	<b>\$158,525</b>	<b>\$10,470,715</b>	<b>\$1,899,682</b>	<b>\$119,754,995</b>	<b>\$1,583,385,062</b>
<b>Average Cost of Fuel Burned (¢/MBTU)</b>																
Coal	359.55	352.99			354.20					341.94					350.11	315.40
Oil - CC																
Oil - Steam/CT	1,564.97	1,487.41			1,505.97			12,245.96	1,521.44	1,620.84					1,530.31	1,604.54
Gas - CC			442.19			442.08	455.27								442.14	392.80
Gas - CT								532.70	467.48			510.56		457.22	464.11	343.97
Gas - Steam					445.73										464.11	410.58
Biogas						1,577.30									1,577.30	1,603.31
Nuclear				58.63							62.46		58.28		59.86	61.43
<b>Weighted Average</b>	<b>417.71</b>	<b>369.55</b>	<b>442.19</b>	<b>58.63</b>	<b>382.33</b>	<b>450.90</b>	<b>455.27</b>	<b>654.77</b>	<b>537.95</b>	<b>344.86</b>	<b>62.46</b>	<b>510.56</b>	<b>58.28</b>	<b>457.22</b>	<b>165.17</b>	<b>166.78</b>
<b>Average Cost of Generation (¢/kWh)</b>																
Coal	2.92	3.41			3.52			1,287.30	632.18						3.43	2.98
Oil - CC										3.41						
Oil - Steam/CT	12.43	15.65			14.52			128.73	63.22	16.41					15.56	17.94
Gas - CC			3.06			3.11	3.19								3.10	2.81
Gas - CT								5.57	10.88			8.08		5.09	5.39	3.85
Gas - Steam					4.45										4.47	4.60
Biogas						11.08									11.08	11.48
Nuclear				0.59							0.62		0.59		0.60	0.62
<b>Weighted Average</b>	<b>3.39</b>	<b>3.57</b>	<b>3.06</b>	<b>0.59</b>	<b>3.80</b>	<b>3.17</b>	<b>3.19</b>	<b>9.16</b>	<b>12.90</b>	<b>3.44</b>	<b>0.62</b>	<b>8.08</b>	<b>0.59</b>	<b>5.09</b>	<b>1.51</b>	<b>1.56</b>
<b>Burned MBTU's</b>																
Coal	206,117	5,531,427			3,638,779					4,004,460					13,380,783	214,294,473
Oil - CC																
Oil - Steam/CT	10,449	81,970			19,009			208	1,695	9,145					122,476	2,599,178
Gas - CC			2,963,222			2,923,367	1,506,423								7,393,012	97,936,802
Gas - CT								19,560	23,652			31,049		415,485	489,746	28,537,792
Gas - Steam					1,277,737		174								1,277,911	2,102,783
Biogas						22,890									22,890	216,190
Nuclear				14,252,377							17,596,869		17,965,994		49,815,240	603,676,564
<b>Total</b>	<b>216,566</b>	<b>5,613,397</b>	<b>2,963,222</b>	<b>14,252,377</b>	<b>4,935,525</b>	<b>2,946,257</b>	<b>1,506,423</b>	<b>19,942</b>	<b>25,347</b>	<b>4,013,605</b>	<b>17,596,869</b>	<b>31,049</b>	<b>17,965,994</b>	<b>415,485</b>	<b>72,502,058</b>	<b>949,363,782</b>

DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Net Generation (mWh)</b>																
Coal	25,397	573,052			366,421					401,855					1,366,724	22,653,740
Oil - CC															-	-
Oil - Steam/CT	1,315	7,791			1,972			20	41	903					12,042	232,515
Gas - CC			428,198			416,157	214,977								1,059,332	13,695,555
Gas - CT								1,871 (466)	1,016			1,961		37,330	42,178	2,550,671
Gas - Steam					128,002										127,536	187,574
Biogas						3,259									3,259	30,204
Nuclear 100%				1,420,722							1,778,199		1,782,248		4,981,169	59,935,028
Hydro (Total System)															323,664	2,347,824
Solar (Total System)															5,768	130,018
<b>Total</b>	<b>26,712</b>	<b>580,843</b>	<b>428,198</b>	<b>1,420,722</b>	<b>496,394</b>	<b>419,416</b>	<b>214,977</b>	<b>1,425</b>	<b>1,057</b>	<b>402,758</b>	<b>1,778,199</b>	<b>1,961</b>	<b>1,782,248</b>	<b>37,330</b>	<b>7,921,672</b>	<b>101,764,129</b>
<b>Cost of Reagents Consumed (\$)</b>																
Ammonia		(\$46,049)	\$14,280		\$11,119	\$8,043	\$11,630								(\$977)	\$4,077,078
Limestone	\$24,711	467,587			478,632					\$374,113					1,345,043	19,594,631
Sorbents	-	53,543								73,539					127,081	2,353,883
Urea	-									45,004					45,004	928,117
Re-emission Chemical	-														-	69,161
Dibasic Acid	-														-	-
Activated Carbon	34,464														34,464	170,782
<b>Total</b>	<b>\$59,175</b>	<b>\$475,081</b>	<b>\$14,280</b>		<b>489,751</b>	<b>\$8,043</b>	<b>\$11,630</b>			<b>\$492,656</b>					<b>\$1,550,615</b>	<b>\$27,193,652</b>

**Notes:**

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

Data is reflected at 100% ownership.

Schedule excludes in-transit and terminal activity.

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

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

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DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	Mill Creek CT	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Coal Data:</b>													
Beginning balance	196,674	741,379		565,251			-		448,731			1,952,035	2,321,844
Tons received during period	-	221,261		95,812					262,988			580,061	8,353,369
Inventory adjustments	(16,000)	(91,871)		(46,501)			-		(41,785)			(196,158)	(171,512)
Tons burned during period	8,841	221,660		146,683			-		158,816			536,000	8,703,762
Ending balance	171,833	649,109		467,879			-		511,118			1,799,939	1,799,939
MBTUs per ton burned	23.31	24.95		24.81			-		25.21			24.96	24.62
Cost of ending inventory (\$/ton)	83.82	88.09		87.87			-		86.22			87.09	87.09
<b>Oil Data:</b>													
Beginning balance	90,694	221,182	-	236,089	-	-	714,747	9,834,797	312,274	4,366,782	3,238,190	19,014,755	16,962,536
Gallons received during period	75,652	578,080	-	144,399	-	-	-	-	-	-	-	798,131	21,144,157
Miscellaneous adjustments	448	(35,415)	-	(11,633)	-	-	(9,425)	-	-	-	-	(57,379)	(352,297)
Gallons burned during period	75,879	596,667	-	137,943	-	-	1,520	12,305	66,449	-	-	889,408	18,888,297
Ending balance	90,915	167,180	-	230,912	-	-	703,802	9,822,492	245,825	4,366,782	3,238,190	18,866,098	18,866,098
Cost of ending inventory (\$/gal)	2.16	1.99	-	2.08	-	-	2.33	2.10	2.23	2.47	2.17	2.20	2.20
<b>Natural Gas Data:</b>													
Beginning balance													
MCF received during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,487	400,698	8,889,956	125,135,402
MCF burned during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,487	400,698	8,889,956	125,135,402
Ending balance													
<b>Biogas Data:</b>													
Beginning balance													
MCF received during period			-		22,062	-						22,062	210,727
MCF burned during period			-		22,062	-						22,062	210,727
Ending balance													
<b>Limestone Data:</b>													
Beginning balance	23,869	38,673		34,190					37,083			133,815	169,322
Tons received during period	-	6,707		7,615					12,836			27,159	444,242
Inventory adjustments	(2,996)	(4,910)		-					(7,085)			(14,991)	(14,991)
Tons consumed during period	527	11,600		9,514					9,187			30,828	483,419
Ending balance	20,346	28,870		32,292					33,647			115,155	115,155
Cost of ending inventory (\$/ton)	46.89	39.54		39.44					40.72			41.16	41.16
<b>Ammonia Data:</b>													
Beginning balance		1,315										1,315	1,159
Tons received during period		901										901	4,715
Tons consumed during period		583										583	4,241
Ending balance		1,633										1,633	1,633
Cost of ending inventory (\$/ton)		620.44										620.44	620.44

**Notes:**

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

Schedule excludes in-transit and terminal activity.

Gas is burned as received; therefore, inventory balances are not maintained.

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**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL PURCHASED  
DECEMBER 2018**

<b>STATION</b>	<b>TYPE</b>	<b>QUANTITY OF TONS DELIVERED</b>	<b>DELIVERED COST</b>	<b>DELIVERED COST PER TON</b>
<b>ALLEN</b>	SPOT	-	\$ -	\$ -
	CONTRACT	-	-	-
	ADJUSTMENTS	-	49,933	-
	TOTAL	-	49,933	-
<b>BELEWS CREEK</b>	SPOT	-	11,982	-
	CONTRACT	221,261	17,706,037	80.02
	ADJUSTMENTS	-	189,618	-
	TOTAL	221,261	17,907,637	80.93
<b>CLIFFSIDE</b>	SPOT	-	-	-
	CONTRACT	95,812	7,221,379	75.37
	ADJUSTMENTS	-	1,326,849	-
	TOTAL	95,812	8,548,228	89.22
<b>MARSHALL</b>	SPOT	96,525	8,181,703	84.76
	CONTRACT	166,463	13,355,663	80.23
	ADJUSTMENTS	-	542,373	-
	TOTAL	262,988	22,079,739	83.96
<b>ALL PLANTS</b>	SPOT	96,525	8,193,685	84.89
	CONTRACT	483,536	38,283,079	79.17
	ADJUSTMENTS	-	2,108,773	-
	TOTAL	580,061	\$ 48,585,537	\$ 83.76



**DUKE ENERGY CAROLINAS**  
**ANALYSIS OF COAL QUALITY RECEIVED**  
**DECEMBER 2018**

<b>STATION</b>	<b>PERCENT MOISTURE</b>	<b>PERCENT ASH</b>	<b>HEAT VALUE</b>	<b>PERCENT SULFUR</b>
<b>BELEWS CREEK</b>	6.91	10.15	12,468	1.58
<b>CLIFFSIDE</b>	8.48	7.60	12,603	2.35
<b>MARSHALL</b>	6.73	10.02	12,508	1.73

**DUKE ENERGY CAROLINAS  
ANALYSIS OF OIL PURCHASED  
DECEMBER 2018**

	<b>ALLEN</b>	<b>BELEWS CREEK</b>	<b>CLIFFSIDE</b>
<b>VENDOR</b>	HighTowers	HighTowers	HighTowers
<b>SPOT/CONTRACT</b>	Contract	Contract	Contract
<b>SULFUR CONTENT %</b>	0	0	0
<b>GALLONS RECEIVED</b>	75,652	578,080	144,399
<b>TOTAL DELIVERED COST</b>	\$ 143,133	\$ 1,082,966	\$ 273,156
<b>DELIVERED COST/GALLON</b>	\$ 1.89	\$ 1.87	\$ 1.89
<b>BTU/GALLON</b>	138,000	138,000	138,000

**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
 January, 2018 - December, 2018  
 Nuclear Units

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<u>Unit Name</u>	<u>Net Generation (mWh)</u>	<u>Capacity Rating (mW)</u>	<u>Capacity Factor (%)</u>	<u>Equivalent Availability (%)</u>
Oconee 1	6,745,635	847	90.91	89.94
Oconee 2	7,581,168	848	102.06	100.00
Oconee 3	6,967,442	859	92.59	92.12
McGuire 1	10,359,250	1,158	102.12	99.56
McGuire 2	9,502,818	1,158	93.68	91.80
Catawba 1	9,510,487	1,160	93.59	92.99
Catawba 2	9,269,228	1,150	92.01	91.84

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**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Combined Cycle Units**

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Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Buck CC	11	1,463,456	206	81.10	88.68
Buck CC	12	1,471,968	206	81.57	89.09
Buck CC	ST10	2,237,637	312	81.87	96.78
Buck CC	Block Total	5,173,061	724	81.57	92.29
Dan River CC	8	1,433,925	199	82.26	86.38
Dan River CC	9	1,410,200	199	80.90	85.84
Dan River CC	ST7	2,118,133	320	75.56	91.38
Dan River CC	Block Total	4,962,258	718	78.90	88.46
WS Lee CC	11	1,030,538	223	70.01	75.09
WS Lee CC	12	1,090,492	223	74.08	77.05
WS Lee CC	ST10	1,402,639	337	63.05	76.36
WS Lee CC	Block Total	3,523,669	783	68.17	76.19

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018**

**Baseload Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Belews Creek 1	4,793,474	1,110	49.30	88.06
Belews Creek 2	3,227,943	1,110	33.20	69.66
Marshall 3	3,176,205	658	55.10	89.31
Marshall 4	3,675,692	660	63.58	88.48

**Notes:**

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018**

**Intermediate Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Cliffside 6	4,311,369	844	58.31	75.32
Marshall 1	958,416	380	28.79	88.74
Marshall 2	675,957	380	20.31	68.31

**Notes:**

- 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 Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Other Cycling Steam Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Allen	1	71,408	167	4.88	83.17
Allen	2	86,505	167	5.91	84.03
Allen	3	158,113	270	6.68	80.91
Allen	4	178,336	267	7.62	89.89
Allen	5	325,399	259	14.34	85.49
Cliffside	5	1,243,104	546	25.99	61.63
Lee	3	54,152	173	3.57	36.34

**Notes:**

- 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 Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Lee CT	79,514	96	84.70
Lincoln CT	82,484	1,565	93.72
Mill Creek CT	201,194	735	99.23
Rockingham CT	2,325,235	895	90.19

**Notes:**

- 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 Carolinas  
Power Plant Performance Data**

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**Twelve Month Summary  
January, 2018 through December, 2018  
Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
<b>Conventional Hydroelectric Stations:</b>			
Bear Creek	37,232	9.5	86.90
Bridgewater	117,680	31.5	95.52
Bryson	4,632	0.9	85.69
Cedar Cliff	27,610	6.8	92.39
Cedar Creek	178,151	45.0	81.91
Cowans Ford	312,212	324.0	58.69
Dearborn	222,145	42.0	97.55
Fishing Creek	203,570	50.0	88.41
Franklin	3,726	1.0	58.90
Gaston Shoals	14,686	4.5	96.65
Great Falls	-92	12.0	100.00
Keowee	98,064	152.0	99.21
Lookout Shoals	162,927	27.0	99.26
Mission	5,388	1.8	51.83
Mountain Island	207,502	62.0	90.56
Nantahala	270,145	50.0	99.03
Ninety-Nine Islands	83,267	15.2	91.67
Oxford	107,478	40.0	38.56
Queens Creek	4,621	1.4	99.89
Rhodhiss	119,297	33.5	94.18
Rocky Creek	-73	3.0	0.00
Tennessee Creek	48,111	9.8	93.76
Thorpe	96,019	19.7	93.15
Tuckasegee	7,077	2.5	85.11
Tuxedo	33,861	6.4	96.21
Wateree	336,004	85.0	81.96
Wylie	175,810	72.0	55.96
<b>Pumped Storage Hydroelectric Stations:</b>			
<b>Gross Generation</b>			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
<b>Energy for Pumping</b>			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
<b>Net Generation</b>			
Bad Creek	-391,555		
Jocassee	-137,671		

**Notes:**

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January 2018 through December 2018  
Pre-commercial Combined Cycle Units**

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

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Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
January 2018					
Lee	11	-10	n/a	n/a	n/a
Lee	12	-11	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-21	n/a	n/a	n/a
February 2018					
Lee	11	-1,575	n/a	n/a	n/a
Lee	12	-1,120	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-2,695	n/a	n/a	n/a
March 2018					
Lee	11	25,973	n/a	n/a	n/a
Lee	12	14,939	n/a	n/a	n/a
Lee	ST10	-1,349	n/a	n/a	n/a
Lee	Block Total	39,563	n/a	n/a	n/a
April 1 - 4					
Lee	11	14,158	n/a	n/a	n/a
Lee	12	6,771	n/a	n/a	n/a
Lee	ST10	8,994	n/a	n/a	n/a
Lee	Block Total	29,923	n/a	n/a	n/a
Total		66,771			

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

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

Period: December, 2018

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Oconee	1	11/30/2018 - 12/08/2018	177.87	Unscheduled	1B2 reactor coolant pump seal leakage	Failure of reactor coolant pump seal	Replaced reactor coolant pump seal
	2	None					
	3	None					
McGuire	1	None					
	2	None					
Catawba	1	11/17/2018 - 12/11/2018	255.70	Scheduled	End-of-cycle 24 refueling outage	Planned refueling outage	Refueling outage in progress
	2	None					

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**Duke Energy Carolinas  
Base Load Power Plant  
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December 2018**

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**Belews Creek Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1	12/3/2018 5:37:00 PM To 12/6/2018 5:07:00 AM	Unsch	1070	Second Reheater Leaks	HRH Leak on 9th floor. P17 Tube 7,8,9,10,11 and 12, P18 Tubes 10,11 and 12.	
1	12/22/2018 6:00:00 PM To 12/23/2018 2:55:00 PM	Sch	1000	Furnace Wall Leaks	Furnace wall leak on 6th floor.	
1	12/26/2018 7:00:00 AM To 1/1/2019 12:00:00 AM	Sch	8110	Wet Scrubber - Spray Nozzles	1B Absorber agitator and mist eliminator header repairs.	
2	9/8/2018 3:00:00 AM To 12/8/2018 12:00:00 AM	Sch	4520	Gen. Stator Windings; Bushings; And Terminals	Unit 2 fall outage for SSH replacement, LP Generator rewind and CCP final ties.	
2	12/8/2018 12:00:00 AM To 12/13/2018 3:23:00 AM	Sch	3999	Other Miscellaneous Balance Of Plant Problems	Fuel oil fire from replaced accumulator, 2B SAH Rub from new seals, 200-2 not wired.	
2	12/14/2018 10:41:00 AM To 12/16/2018 11:54:00 PM	Unsch	8499	Other Miscellaneous Wet Scrubber Problems	FGD Stack doors left open and could not be closed online.	
2	12/27/2018 9:34:00 PM To 12/31/2018 9:30:00 PM	Sch	1492	Air Heater Fouling (Tubular)	Unit 2 PAH plugged and unable to make mill temps.	

**Buck Combined Cycle Station**

No Outages at Baseload Units During the Month.

**Dan River Combined Cycle Station**

No Outages at Baseload Units During the Month.

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

**Duke Energy Carolinas  
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**Marshall Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
4	12/7/2018 9:58:00 PM To 12/15/2018 4:00:00 PM	Sch	1493	Air Heater Fouling (Regenerative)	APH Wash.	
4	12/18/2018 8:00:00 AM To 12/20/2018 5:00:00 PM	Sch	0890	Bottom Ash Systems (Wet or Dry)	Bottom Ash Hopper Seal Trough Repairs.	

**WS Lee Combined Cycle**

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
WS Lee CC ST 10	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	4289	Turbine - Other Lube Oil System Problems	Trip due to low lube oil in reservoir.	
WS Lee CC ST 10	12/22/2018 12:10:00 AM To 12/22/2018 1:00:00 AM	Unsch	4289	Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC ST 10	12/22/2018 1:53:00 AM To 12/22/2018 11:00:00 AM	Unsch	4289	Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC ST 10	12/22/2018 11:42:00 AM To 12/22/2018 2:00:00 PM	Unsch	4289	Turbine - Other Lube Oil System Problems	EBOP fail to start.	
WS Lee CC GT 11	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	3430	Feedwater Regulating (Boiler Level Control) Valve	Trip due to IP drum level.	
WS Lee CC GT 11	12/21/2018 6:30:00 AM To 12/21/2018 10:00:00 AM	Sch	3352	Feedwater Chemistry	Shut down due to water chemistry/vac.	
WS Lee CC GT 12	12/3/2018 7:05:00 PM To 12/20/2018 5:00:00 PM	Unsch	3430	Feedwater Regulating (Boiler Level Control) Valve	Trip due to IP drum level.	

**Notes:**

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

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**December 2018  
Oconee Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>		<u>Unit 3</u>	
(A) MDC (mW)	847		848		859	
(B) Period Hours	744		744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	481,371	76.39	648,846	102.84	652,031	102.02
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	0	0.00	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	150,653	23.91	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-1,856	-0.30	-17,934	-2.84	-12,935	-2.02
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00	0	0.00
(J) Net mWh Possible in Period	630,168	100.00%	630,912	100.00%	639,096	100.00%
(K) Equivalent Availability (%)		75.43		100.00		100.00
(L) Output Factor (%)		100.39		102.84		102.02
Heat Rate (BTU/NkWh)		10,230		10,050		10,001

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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

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**December 2018  
McGuire Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1158		1158	
(B) Period Hours	744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	891,451	103.47	886,748	102.92
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-29,899	-3.47	-25,196	-2.92
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	861,552	100.00%	861,552	100.00%
(K) Equivalent Availability (%)	100.00		100.00	
(L) Output Factor (%)	103.47		102.92	
Heat Rate (BTU/NkWh)	9,869		9,923	

\* Estimate  
FOOTNOTE: D and F Include Ramping Losses

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

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**December 2018  
Catawba Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1160		1150	
(B) Period Hours	744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	552,976	64.07	867,746	101.42
(D) Net mWh Not Gen due to Full Schedule Outages	296,612	34.37	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	13,307	1.54	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	145	0.02	-12,146	-1.42
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	863,040	100.00%	855,600	100.00%
(K) Equivalent Availability (%)		63.35		100.00
(L) Output Factor (%)		97.63		101.42
Heat Rate (BTU/NkWh)		10,134		9,967

\* Estimate  
FOOTNOTE: D and F Include Ramping Losses

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**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	744	744
(C) Net Generation (mWh)	404,610	176,233
(D) Capacity Factor (%)	48.99	21.34
(E) Net mWh Not Generated due to Full Scheduled Outages	175,287	429,921
(F) Scheduled Outages: percent of Period Hrs	21.23	52.06
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	66,045	67,951
(J) Forced Outages: percent of Period Hrs	8.00	8.23
(K) Net mWh Not Generated due to Partial Forced Outages	3,159	45,010
(L) Forced Derates: percent of Period Hrs	0.38	5.45
(M) Net mWh Not Generated due to Economic Dispatch	176,739	106,725
(N) Economic Dispatch: percent of Period Hrs	21.40	12.92
(O) Net mWh Possible in Period	825,840	825,840
(P) Equivalent Availability (%)	70.39	34.26
(Q) Output Factor (%)	85.98	54.19
(R) Heat Rate (BTU/NkWh)	9,236	10,647

**Notes:**

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**Duke Energy Carolinas  
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**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	312	724
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	129,223	129,215	169,760	428,198
(D) Capacity Factor (%)	84.31	84.31	73.13	79.49
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	5,952	5,952
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	2.56	1.10
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	24,041	24,049	56,416	104,506
(N) Economic Dispatch: percent of Period Hrs	15.69	15.69	24.30	19.40
(O) Net mWh Possible in Period	153,264	153,264	232,128	538,656
(P) Equivalent Availability (%)	100.00	100.00	97.44	98.90
(Q) Output Factor (%)	85.29	86.03	73.13	80.21
(R) Heat Rate (BTU/NkWh)	9,945	9,739	1,661	6,599

**Notes:**

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**Duke Energy Carolinas  
Base Load Power Plant  
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**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	199	199	320	718
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	130,730	122,378	166,308	419,416
(D) Capacity Factor (%)	88.30	82.66	69.85	78.51
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	17,326	25,678	71,772	114,776
(N) Economic Dispatch: percent of Period Hrs	11.70	17.34	30.15	21.49
(O) Net mWh Possible in Period	148,056	148,056	238,080	534,192
(P) Equivalent Availability (%)	100.00	100.00	100.00	100.00
(Q) Output Factor (%)	89.45	88.83	71.12	81.01
(R) Heat Rate (BTU/NkWh)	10,412	10,566	1,784	7,036

**Notes:**

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**Duke Energy Carolinas  
Base Load Power Plant  
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**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	744	744
(C) Net Generation (mWh)	250,510	51,399
(D) Capacity Factor (%)	51.17	10.47
(E) Net mWh Not Generated due to Full Scheduled Outages	0	160,402
(F) Scheduled Outages: percent of Period Hrs	0.00	32.67
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	239,042	279,239
(N) Economic Dispatch: percent of Period Hrs	48.83	56.87
(O) Net mWh Possible in Period	489,552	491,040
(P) Equivalent Availability (%)	100.00	67.33
(Q) Output Factor (%)	51.17	46.92
(R) Heat Rate (BTU/NkWh)	9,867	10,142

**Notes:**

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**Duke Energy Carolinas  
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**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	223	223	337	783
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	65,805	67,050	82,122	214,977
(D) Capacity Factor (%)	39.66	40.41	32.75	36.90
(E) Net mWh Not Generated due to Full Scheduled Outages	781	0	0	781
(F) Scheduled Outages: percent of Period Hrs	0.47	0.00	0.00	0.13
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	0	0	0
(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(I) Net mWh Not Generated due to Full Forced Outages	90,519	90,519	140,922	321,961
(J) Forced Outages: percent of Period Hrs	54.56	54.56	56.21	55.27
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	8,807	8,343	27,684	44,834
(N) Economic Dispatch: percent of Period Hrs	5.31	5.03	11.04	7.70
(O) Net mWh Possible in Period	165,912	165,912	250,728	582,552
(P) Equivalent Availability (%)	44.97	45.44	43.79	44.60
(Q) Output Factor (%)	91.32	94.95	83.12	89.03
(R) Heat Rate (BTU/NkWh)	9,815	9,566	2,061	6,775

**Notes:**

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- (R) Includes Light Off BTU's
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**Duke Energy Carolinas  
Intermediate Power Plant Performance  
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**Cliffside Station**

**Cliffside 6**

(A) MDC (mW)	844
(B) Period Hrs	744
(C) Net Generation (mWh)	383,291
(D) Net mWh Possible in Period	627,936
(E) Equivalent Availability (%)	87.46
(F) Output Factor (%)	69.10
(G) Capacity Factor (%)	61.04

**Notes:**

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**Duke Energy Carolinas  
Peaking Power Plant Performance  
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**Cliffside Station**

**Unit 5**

(A) MDC (mW)	546
(B) Period Hrs	744
(C) Net Generation (mWh)	113,103
(D) Net mWh Possible in Period	406,224
(E) Equivalent Availability (%)	80.73
(F) Output Factor (%)	74.07
(G) Capacity Factor (%)	27.84

**Notes:**

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

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**January 2018 - December 2018  
Oconee Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>		<u>Unit 3</u>	
(A) MDC (mW)	847		848		859	
(B) Period Hours	8760		8760		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	6,745,635	90.91	7,581,168	102.06	6,967,442	92.59
(D) Net mWh Not Gen due to Full Schedule Outages	524,378	7.07	0	0.00	582,288	7.74
* (E) Net mWh Not Gen due to Partial Scheduled Outages	29,529	0.40	347	0.00	46,294	0.62
(F) Net mWh Not Gen due to Full Forced Outages	184,787	2.49	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-64,608	-0.87	-153,035	-2.06	-71,184	-0.95
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00	0	0.00
(J) Net mWh Possible in Period	7,419,720	100.00%	7,428,480	100.00%	7,524,840	100.00%
(K) Equivalent Availability (%)	89.94		100.00		92.12	
(L) Output Factor (%)	100.52		102.06		100.36	
Heat Rate (BTU/NkWh)	10,233		10,127		10,102	

\* Estimate  
FOOTNOTE: D and F Include Ramping Losses

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

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**January 2018 - December 2018  
McGuire Nuclear Station**

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	1158	1158		
(B) Period Hours	8760	8760		
(C) Net Gen (mWh) and Capacity Factor (%)	10,359,250	102.12	9,502,818	93.68
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	791,628	7.80
* (E) Net mWh Not Gen due to Partial Scheduled Outages	796	0.01	28,506	0.28
(F) Net mWh Not Gen due to Full Forced Outages	34,991	0.34	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-250,957	-2.47	-178,872	-1.76
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	10,144,080	100.00%	10,144,080	100.00%
(K) Equivalent Availability (%)		99.56		91.80
(L) Output Factor (%)		102.47		101.61
Heat Rate (BTU/NkWh)		9,957		10,015

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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

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**January 2018 - December 2018  
Catawba Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	1160		1150	
(B) Period Hours	0		8760	
(C) Net Gen (mWh) and Capacity Factor (%)	9,510,487	102.28	9,269,228	92.01
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	777,783	7.72
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	76,740	0.76
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	0	0.00	-49,751	-0.49
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation*	0	0.00	0	0.00
(J) Net mWh Possible in Period	0	100.00%	10,074,000	100.00%
(K) Equivalent Availability (%)	95.52		91.84	
(L) Output Factor (%)	100.33		99.71	
Heat Rate (BTU/NkWh)	10,098		10,048	

\* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	4,793,474	3,227,943
(D) Capacity Factor (%)	49.30	33.20
(E) Net mWh Not Generated due to Full Scheduled Outages	747,659	2,689,881
(F) Scheduled Outages: percent of Period Hrs	7.69	27.66
(G) Net mWh Not Generated due to Partial Scheduled Outages	1,040	740
(H) Scheduled Derates: percent of Period Hrs	0.01	0.01
(I) Net mWh Not Generated due to Full Forced Outages	311,892	173,216
(J) Forced Outages: percent of Period Hrs	3.21	1.78
(K) Net mWh Not Generated due to Partial Forced Outages	100,192	86,443
(L) Forced Derates: percent of Period Hrs	1.03	0.89
(M) Net mWh Not Generated due to Economic Dispatch	3,769,344	3,545,377
(N) Economic Dispatch: percent of Period Hrs	38.76	36.46
(O) Net mWh Possible in Period	9,723,600	9,723,600
(P) Equivalent Availability (%)	88.06	69.66
(Q) Output Factor (%)	73.99	67.36
(R) Heat Rate (BTU/NkWh)	9,305	9,599

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- Footnote: (R) Includes Light Off BTU's

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**Duke Energy Carolinas  
Base Load Power Plant  
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January, 2018 through December, 2018**

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**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	312	724
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,463,456	1,471,968	2,237,637	5,173,061
(D) Capacity Factor (%)	81.10	81.57	81.87	81.57
(E) Net mWh Not Generated due to Full Scheduled Outages	61,021	56,502	58,692	176,215
(F) Scheduled Outages: percent of Period Hrs	3.38	3.13	2.15	2.78
(G) Net mWh Not Generated due to Partial Scheduled Outages	139,166	139,968	28,219	307,353
(H) Scheduled Derates: percent of Period Hrs	7.71	7.76	1.03	4.85
(I) Net mWh Not Generated due to Full Forced Outages	4,003	354	806	5,163
(J) Forced Outages: percent of Period Hrs	0.22	0.02	0.03	0.08
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	277	277
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.01	0.00
(M) Net mWh Not Generated due to Economic Dispatch	136,914	135,768	407,489	680,170
(N) Economic Dispatch: percent of Period Hrs	7.59	7.52	14.91	10.72
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,733,120	6,342,240
(P) Equivalent Availability (%)	88.68	89.09	96.78	92.29
(Q) Output Factor (%)	84.66	84.85	84.14	84.49
(R) Heat Rate (BTU/NkWh)	10,221	9,937	2,440	6,774

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	199	199	320	718
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,433,925	1,410,200	2,118,133	4,962,258
(D) Capacity Factor (%)	82.26	80.90	75.56	78.90
(E) Net mWh Not Generated due to Full Scheduled Outages	97,347	105,218	156,480	359,045
(F) Scheduled Outages: percent of Period Hrs	5.58	6.04	5.58	5.71
(G) Net mWh Not Generated due to Partial Scheduled Outages	132,928	132,170	5,760	270,858
(H) Scheduled Derates: percent of Period Hrs	7.63	7.58	0.21	4.31
(I) Net mWh Not Generated due to Full Forced Outages	7,068	9,462	11,920	28,450
(J) Forced Outages: percent of Period Hrs	0.41	0.54	0.43	0.45
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	67,418	67,418
(L) Forced Derates: percent of Period Hrs	0.00	0.00	2.41	1.07
(M) Net mWh Not Generated due to Economic Dispatch	71,972	86,190	443,489	601,650
(N) Economic Dispatch: percent of Period Hrs	4.13	4.94	15.82	9.57
(O) Net mWh Possible in Period	1,743,240	1,743,240	2,803,200	6,289,680
(P) Equivalent Availability (%)	86.38	85.84	91.38	88.46
(Q) Output Factor (%)	87.94	87.41	80.83	84.62
(R) Heat Rate (BTU/NkWh)	10,614	10,673	2,397	7,123

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

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**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	3,176,205	3,675,692
(D) Capacity Factor (%)	55.10	63.58
(E) Net mWh Not Generated due to Full Scheduled Outages	372,746	501,545
(F) Scheduled Outages: percent of Period Hrs	6.47	8.67
(G) Net mWh Not Generated due to Partial Scheduled Outages	2,091	12,896
(H) Scheduled Derates: percent of Period Hrs	0.04	0.22
(I) Net mWh Not Generated due to Full Forced Outages	95,739	81,433
(J) Forced Outages: percent of Period Hrs	1.66	1.41
(K) Net mWh Not Generated due to Partial Forced Outages	145,499	69,994
(L) Forced Derates: percent of Period Hrs	2.52	1.21
(M) Net mWh Not Generated due to Economic Dispatch	1,971,800	1,440,040
(N) Economic Dispatch: percent of Period Hrs	34.21	24.91
(O) Net mWh Possible in Period	5,764,080	5,781,600
(P) Equivalent Availability (%)	89.31	88.48
(Q) Output Factor (%)	68.89	75.74
(R) Heat Rate (BTU/NkWh)	9,553	9,406

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	223	223	337	783
(B) Period Hrs	6,601	6,601	6,601	6,601
(C) Net Generation (mWh)	1,030,538	1,090,492	1,402,639	3,523,669
(D) Capacity Factor (%)	70.01	74.08	63.05	68.17
(E) Net mWh Not Generated due to Full Scheduled Outages	200,652	187,320	291,168	679,140
(F) Scheduled Outages: percent of Period Hrs	13.63	12.73	13.09	13.14
(G) Net mWh Not Generated due to Partial Scheduled Outages	27,459	28,514	67,117	123,090
(H) Scheduled Derates: percent of Period Hrs	1.87	1.94	3.02	2.38
(I) Net mWh Not Generated due to Full Forced Outages	138,565	122,014	167,641	428,220
(J) Forced Outages: percent of Period Hrs	9.41	8.29	7.54	8.29
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	74,809	43,683	295,972	414,464
(N) Economic Dispatch: percent of Period Hrs	5.08	2.97	13.30	8.02
(O) Net mWh Possible in Period	1,472,023	1,472,023	2,224,537	5,168,583
(P) Equivalent Availability (%)	75.09	77.05	76.36	76.19
(Q) Output Factor (%)	96.75	98.41	85.00	92.16
(R) Heat Rate (BTU/NkWh)	10,365	10,240	1,646	6,855

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.
- Footnote: (R) Includes Light Off BTU's

**Duke Energy Carolinas  
Base Load Power Plant  
Performance Review Plan  
January 2018 through December 2018**

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**Pre-Commercial  
Lee Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)				
(B) Period Hrs				
(C) Net Generation (mWh)	38,546	20,580	7,645	66,771
(D) Capacity Factor (%)				
(E) Net mWh Not Generated due to Full Scheduled Outages				
(F) Scheduled Outages: percent of Period Hrs				
(G) Net mWh Not Generated due to Partial Scheduled Outages				
(H) Scheduled Derates: percent of Period Hrs				
(I) Net mWh Not Generated due to Full Forced Outages				
(J) Forced Outages: percent of Period Hrs				
(K) Net mWh Not Generated due to Partial Forced Outages				
(L) Forced Derates: percent of Period Hrs				
(M) Net mWh Not Generated due to Economic Dispatch				
(N) Economic Dispatch: percent of Period Hrs				
(O) Net mWh Possible in Period				
(P) Equivalent Availability (%)				
(Q) Output Factor (%)				
(R) Heat Rate (BTU/NkWh)				

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first month a station is in commercial operation. Lee CC began commercial operations April 5, 2018.

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**Duke Energy Carolinas  
Intermediate Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Cliffside Station**

<b>Units</b>	<b>Unit 6</b>
(A) MDC (mW)	844
(B) Period Hrs	8,760
(C) Net Generation (mWh)	4,311,369
(D) Net mWh Possible in Period	7,393,440
(E) Equivalent Availability (%)	75.32
(F) Output Factor (%)	79.29
(G) Capacity Factor (%)	58.31

**Notes:**

- 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 Carolinas  
Peaking Power Plant  
Performance Review Plan  
January, 2018 through December, 2018**

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**Cliffside Station**

<b>Units</b>	<b>Unit 5</b>
(A) MDC (mW)	546
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,243,104
(D) Net mWh Possible in Period	4,782,960
(E) Equivalent Availability (%)	60.18
(F) Output Factor (%)	71.78
(G) Capacity Factor (%)	25.99

**Notes:**

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

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Supplemental

McGee Workpaper 1

F/A

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Proposed Nuclear Capacity Factor  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs	9,270,870	9,127,064	10,021,874	9,249,360	7,252,338	6,692,637	6,844,888	58,459,031
Cost (Gross of Joint Owners)	\$ 57,728,557	\$ 58,001,149	\$ 60,167,863	\$ 56,622,253	\$ 46,212,440	\$ 38,923,889	\$ 39,841,317	357,497,468
\$/MWh	6.2269	6.3549	6.0037	6.1217	6.3721	5.8159	5.8206	
Avg \$/MWh		6.1154						
Cents per kWh		0.6115						

Sept 2019 -  
August 2020

MDC			
CATA_UN01	Catawba	MW	1,160.1
CATA_UN02	Catawba	MW	1,150.1
MCGU_UN01	McGuire	MW	1,158.0
MCGU_UN02	McGuire	MW	1,157.6
OCON_UN01	Oconee	MW	847.0
OCON_UN02	Oconee	MW	848.0
OCON_UN03	Oconee	MW	859.0
			<u>7,179.8</u>

Hours in month 8,760

Generation GWhs

CATA_UN01	Catawba	GWh	9,271
CATA_UN02	Catawba	GWh	9,127
MCGU_UN01	McGuire	GWh	10,022
MCGU_UN02	McGuire	GWh	9,249
OCON_UN01	Oconee	GWh	7,252
OCON_UN02	Oconee	GWh	6,693
OCON_UN03	Oconee	GWh	6,845
			<u>58,459</u>

Proposed Nuclear Capacity Factor 92.95%

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## DUKE ENERGY CAROLINAS

North Carolina Annual Fuel and Fuel Related Expense

NERC 5 Year Average Nuclear Capacity Factor

Billing Period Sept 2019 through Aug 2020

Docket E-7, Sub 1190

McGee Workpaper 2

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs with NERC applied	9,098,465	9,020,036	9,081,995	9,078,858	6,785,334	6,793,345	6,881,466	56,739,499
Hours	8760	8760	8760	8760	8760	8760	8760	8760
MDC	1160.1	1150.1	1158.0	1157.6	847.0	848.0	859.0	7179.8
Capacity factor	89.53%	89.53%	89.53%	89.53%	91.45%	91.45%	91.45%	90.21%
Cost	\$ 55,640,302	\$ 55,160,685	\$ 55,539,582	\$ 55,520,397	\$ 41,494,696	\$ 41,543,686	\$ 42,082,578	\$ 346,981,926
Avg \$/MWh		6.1154						
Cents per kWh		0.6115						

2013-2017	Capacity Rating	NCF Rating	Weighted Average
Oconee 1	847.0	91.45	10.79%
Oconee 2	848.0	91.45	10.80%
Oconee 3	859.0	91.45	10.94%
McGuire 1	1158.0	89.53	14.44%
McGuire 2	1157.6	89.53	14.43%
Catawba 1	1160.1	89.53	14.47%
Catawba 2	1150.1	89.53	14.34%
	7179.8		90.21%

Wtd Avg on Capacity Rating

**DUKE ENERGY CAROLINAS**

North Carolina Annual Fuel and Fuel Related Expense

North Carolina Generation and Purchased Power in MWhs

Billing Period Sept 2019 through Aug 2020

Docket E-7, Sub 1190

McGee Workpaper 3

Resource Type	Sept 2019 - August 2020	
NUC Total (Gross)	58,459,031	
COAL Total	18,355,203	
Gas CT and CC total (Gross)	20,821,617	
Run of River	4,839,425	
Net pumped Storage	(3,874,211)	
Total Hydro	965,214	
Catawba Joint Owners	(14,888,880)	
Lee CC Joint Owners	(878,400)	
DEC owned solar	184,444	
Total Generation		83,018,229
Purchases for REPS Compliance	1,204,212	
Qualifying Facility Purchases - Non-REPS compliance	1,275,248	
Other Purchases	66,854	
Allocated Economic Purchases	319,079	
Joint Dispatch Purchases	6,414,946	
Total Generation and Purchased Power	9,280,339	92,298,568
Fuel Recovered Through intersystem Sales	(687,755)	

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Projected Fuel and Fuel Related Costs**  
**Billing Period Sept 2019 through Aug 2020**  
**Docket E-7, Sub 1190**

McGee Workpaper 4

Resource Type	Sept 2019 - August 2020	
Nuclear Total (Gross)	\$ 357,497,468	
COAL Total	570,050,837	
Gas CT and CC total (Gross)	503,184,086	
Catawba Joint Owner costs	(91,061,695)	
CC Joint Owner costs	(18,112,976)	
Reagents and gain/loss on sale of By-Products	24,959,649	Workpaper 9
Purchases for REPS Compliance - Energy	63,867,566	
Purchases for REPS Compliance Capacity	13,295,654	
Purchases of Qualifying Facilities - Energy	58,754,197	
Purchases of Qualifying Facilities - Capacity	14,874,084	
Other Purchases	2,029,948	
JDA Savings Shared	19,972,407	Workpaper 5
Allocated Economic Purchase cost	9,109,705	Workpaper 5
Joint Dispatch purchases	132,910,592	Workpaper 6
<b>Total Purchases</b>	<b>314,814,153</b>	
<b>Fuel Expense recovered through intersystem sales</b>	<b>(16,986,301)</b>	Workpaper 5
<b>Total System Fuel and Fuel Related Costs</b>	<b>\$ 1,644,345,221</b>	

**McGee Workpaper 5**

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Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment	
DEP	DEC	DEP	DEC	DEP	DEC	DEP	DEC
\$ 475,131	\$ 665,890	\$ (169,265)	\$ (112,397)	\$ (10,444,194)	\$ 10,444,194	\$ (1,053,331)	\$ 1,053,331
\$ 414,456	\$ 591,080	\$ (4,395)	\$ (67,808)	\$ (7,750,156)	\$ 7,750,156	\$ (1,182,598)	\$ 1,182,598
\$ 950,625	\$ 1,370,649	\$ (419,575)	\$ (61,033)	\$ (15,340,171)	\$ 15,340,171	\$ (2,955,441)	\$ 2,955,441
\$ 479,370	\$ 692,032	\$ (371,479)	\$ (59,958)	\$ (12,761,635)	\$ 12,761,635	\$ (1,792,678)	\$ 1,792,678
\$ 730,828	\$ 1,011,856	\$ (1,806,953)	\$ (2,697,340)	\$ (1,005,527)	\$ 1,005,527	\$ 626,965	\$ (626,965)
\$ 463,058	\$ 655,004	\$ (1,255,361)	\$ (1,044,487)	\$ (2,708,449)	\$ 2,708,449	\$ (215,029)	\$ 215,029
\$ 426,687	\$ 608,794	\$ (409,836)	\$ (356,416)	\$ (9,719,397)	\$ 9,719,397	\$ (1,442,087)	\$ 1,442,087
\$ 459,023	\$ 693,091	\$ (291,103)	\$ (49,201)	\$ (10,408,733)	\$ 10,408,733	\$ (2,336,142)	\$ 2,336,142
\$ 531,216	\$ 804,769	\$ (483,810)	\$ (86,028)	\$ (13,269,047)	\$ 13,269,047	\$ (2,608,123)	\$ 2,608,123
\$ 345,100	\$ 504,336	\$ (265,478)	\$ (113,940)	\$ (13,397,425)	\$ 13,397,425	\$ (2,137,472)	\$ 2,137,472
\$ 587,846	\$ 827,961	\$ (399,661)	\$ (463,252)	\$ (12,439,738)	\$ 12,439,738	\$ (3,016,091)	\$ 3,016,091
\$ 483,920	\$ 684,244	\$ (327,024)	\$ (196,140)	\$ (11,987,821)	\$ 11,987,821	\$ (1,860,381)	\$ 1,860,381

Sept 19 - Aug 20	\$ 9,109,705	\$ (5,308,001)	\$ 121,232,293	\$ 19,972,407
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\$	132,910,592	Workpaper 6 - Transfer - Purchases
\$	(11,678,300)	Workpaper 6 - Transfer - Sales
\$	121,232,293	Sept 19-Aug 20 Net Fuel Transfer Payment
\$	(11,678,300)	Workpaper 6 - Transfer - Sales
\$	(5,308,001)	Sept 19-Aug 20 Economic Sales Cost
\$	(16,986,301)	Total Fuel expense recovered through intersystem sales

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Merger Payments  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 6

	Transfer Projection		Purchase Allocation Delta		Adjusted Transfer		Fossil Gen Cost		Pre-Net Payments	
	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC
9/1/2019	464,096	14,623	10,534	(10,534)	474,630	14,623	\$ 22.64	\$ 20.60	\$ 301,261	\$ 10,745,454
10/1/2019	406,906	75,054	8,370	(8,370)	415,276	75,054	\$ 22.10	\$ 19.03	\$ 1,427,980	\$ 9,178,136
11/1/2019	675,108	1,571	33,083	(33,083)	708,192	1,571	\$ 21.71	\$ 20.01	\$ 31,436	\$ 15,371,607
12/1/2019	564,868	22,814	2,716	(2,716)	567,583	22,814	\$ 23.37	\$ 22.13	\$ 504,795	\$ 13,266,429
1/1/2020	207,223	163,501	(7,592)	7,592	207,223	171,093	\$ 25.26	\$ 24.72	\$ 4,228,626	\$ 5,234,152
2/1/2020	232,255	123,728	(8,963)	8,963	232,255	132,692	\$ 24.98	\$ 23.30	\$ 3,092,324	\$ 5,800,773
3/1/2020	468,979	12,017	7,840	(7,840)	476,820	12,017	\$ 20.80	\$ 16.50	\$ 198,232	\$ 9,917,629
4/1/2020	580,234	41,238	(4,789)	4,789	580,234	46,027	\$ 19.35	\$ 17.80	\$ 819,312	\$ 11,228,046
5/1/2020	666,200	17,354	14,825	(14,825)	681,026	17,354	\$ 19.93	\$ 17.44	\$ 302,581	\$ 13,571,628
6/1/2020	739,202	5,870	4,470	(4,470)	743,672	5,870	\$ 18.15	\$ 16.50	\$ 96,828	\$ 13,494,252
7/1/2020	672,958	24,313	(279)	279	672,958	24,592	\$ 19.09	\$ 16.62	\$ 408,669	\$ 12,848,407
8/1/2020	642,936	17,040	12,142	(12,142)	655,079	17,040	\$ 18.71	\$ 15.63	\$ 266,256	\$ 12,254,078
Sept 19 - Aug 20	6,320,965	519,122	72,358	(72,358)	6,414,946	540,745			\$ 11,678,300	\$ 132,910,592
									Net Pre-Net Payments	\$ 121,232,293

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected and Adjusted Projected Sales and Costs  
Proposed Nuclear Capacity Factor of 92.95%  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 7

Fall 2018 Forecast  
Billed Sales Forecast  
Sales Forecast - MWhs [000]

		Projected sales for the Billing Period	Remove Impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:				
	Residential	21,397,068		21,397,068
	General	23,127,702		23,127,702
	Industrial	12,939,285		12,939,285
	Lighting	253,942		253,942
	NC RETAIL	57,717,997	-	57,717,997
South Carolina:				
	Residential	6,427,468	78,602	6,506,070
	General	5,801,262	49,849	5,851,111
	Industrial	9,500,669	688	9,501,357
	Lighting	42,373	-	42,373
	SC RETAIL	21,771,772	129,139	21,900,911
Total Retail Sales				
	Residential	27,824,536	78,602	27,903,138
	General	28,928,964	49,849	28,978,813
	Industrial	22,439,954	688	22,440,642
	Lighting	296,315	-	296,315
	Retail Sales	79,489,769	129,139	79,618,908
	Wholesale	7,624,936	-	7,624,936
	Projected System MWH Sales for Fuel Factor	87,114,705	129,139	87,243,844
	NC as a percentage of total	66.26%		66.16%
	SC as a percentage of total	24.99%		25.10%
	Wholesale as a percentage of total	8.75%		8.74%
		100.00%		100.00%
SC Net Metering allocation adjustment				
	Total projected SC NEM MWhs		129,139	
	Marginal fuel rate per MWh for SC NEM		\$ 32.50	
	Fuel benefit to be directly assigned to SC Retail		\$ 4,197,018	
System Fuel Expense			\$ 1,644,345,221	McGee Exhibit 2 Schedule 1 Page 1 of 3
	Fuel benefit to be directly assigned to SC Retail		\$ 4,197,018	
	Total Fuel Costs for Allocation		\$ 1,648,542,239	

Reconciliation		System	NC Retail Customers	Wholesale	South Carolina Retail	
Total system fuel expense from McGee Exhibit 2 Schedule 1 Page 1		\$ 1,644,345,221				
QF and REPS Compliance Purchased Power - Capacity		\$ 28,169,738				
Other fuel costs		\$ 1,616,175,484				
SC Net Metering Fuel Allocation adjustment		\$ 4,197,018				
Jurisdictional fuel costs after adj.		\$ 1,620,372,501				
Allocation to states/classes			66.16%	8.74%	25.10%	
Jurisdictional fuel costs		\$ 1,620,372,501	\$ 1,072,038,447	\$ 141,620,557	\$ 406,713,498	
Direct Assignment of Fuel benefit to SC Retail		\$ (4,197,018)		\$ -	\$ (4,197,018)	67.04% Capacity Allocator
Total system actual fuel costs		\$ 1,616,175,484	\$ 1,072,038,447	\$ 141,620,557	\$ 402,516,480	
QF and REPS Compliance Purchased Power - Capacity		28,169,738	18,884,001			
Total system fuel expense from McGee Exhibit 2 Schedule 1 Page 1		\$ 1,644,345,221	\$ 1,090,922,448			

Exh. 2, Sch. 1 page 3

## DUKE ENERGY CAROLINAS

North Carolina Annual Fuel and Fuel Related Expense

Projected and Adjusted Projected Sales and Costs

Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales

Billing Period Sept 2019 through Aug 2020

Docket E-7, Sub 1190

Revised McGee Workpaper 7a

Fall 2018 Forecast

Billed Sales Forecast - Normalized Test Period Sales

Sales Forecast - MWhs (000)

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove Impact of SC DERP Net Metered generation	Normalized Test Period Sales
North Carolina:					
NC RETAIL	59,480,703	242,974	(1,649,623)	-	58,074,054
South Carolina:					
SC RETAIL	21,918,532	96,319	(507,334)	129,139	21,636,656
Wholesale	9,088,393	80,403	(250,198)	-	8,918,598
Normalized System MWh Sales for Fuel Factor	90,487,628	419,697	(2,407,155)	129,139	88,629,309
NC as a percentage of total	65.73%				65.52%
SC as a percentage of total	24.22%				24.41%
Wholesale as a percentage of total	10.04%				10.06%
	100.00%				99.99%

## SC Net Metering allocation adjustment

Total projected SC NEM MWhs

129,139

Marginal fuel rate per MWh for SC NEM

\$ 32.50

Fuel benefit to be directly assigned to SC Retail

\$ 4,197,018

System Fuel Expense  
 Fuel benefit to be directly assigned to SC Retail  
 Total Fuel Costs for Allocation

\$ 1,683,362,477 McGee Exhibit 2 Schedule 2 Page 1 of 3  
 \$ 4,197,018  
 \$ 1,687,559,495

## Reconciliation

	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from McGee Exhibit 2 Schedule 2 Page 1	\$ 1,683,362,477			
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738			
Other fuel costs	\$ 1,655,192,739			
SC Net Metering Fuel Allocation adjustment	\$ 4,197,018			
Jurisdictional fuel costs after adj.	\$ 1,659,389,757			
Allocation to states/classes		65.52%	10.06%	24.41%
Jurisdictional fuel costs	\$ 1,659,389,757	\$ 1,087,232,169	\$ 166,934,610	\$ 405,057,040
Direct Assignment of Fuel benefit to SC Retail	\$ (4,197,018)		\$ -	\$ (4,197,018)
Total system actual fuel costs	\$ 1,655,192,739	\$ 1,087,232,169	\$ 166,934,610	\$ 400,860,022
QF and REPS Compliance Purchased Power - Capacity	28,169,738	18,884,001		
Total system fuel expense from McGee Exhibit 2 Schedule 2 Page 1	\$ 1,683,362,477	\$ 1,106,116,170		

Exh. 2, Sch 2 page 3

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected and Adjusted Projected Sales and Costs  
NERC 5 Year Average Nuclear Capacity Factor of 90.21%  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 7b

Fall 2018 Forecast  
Billed Sales Forecast  
Sales Forecast - MWhs (000)

	Projected sales for the Billing Period	Remove Impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:			
Residential	21,397,068		21,397,068
General	23,127,702		23,127,702
Industrial	12,939,285		12,939,285
Lighting	253,942		253,942
NC RETAIL	57,717,997	-	57,717,997
South Carolina:			
Residential	6,427,468	78,602	6,506,070
General	5,801,262	49,849	5,851,111
Industrial	9,500,669	688	9,501,357
Lighting	42,373	0	42,373
SC RETAIL	21,771,772	129,139	21,900,911
Total Retail Sales			
Residential	27,824,536	78,602	27,903,138
General	28,928,964	49,849	28,978,813
Industrial	22,439,954	688	22,440,642
Lighting	296,315	-	296,315
Retail Sales	79,489,769	129,139	79,618,908
Wholesale	7,624,936	-	7,624,936
Projected System MWh Sales for Fuel Factor	87,114,705	129,139	87,243,844
NC as a percentage of total	66.26%		66.16%
SC as a percentage of total	24.99%		25.10%
Wholesale as a percentage of total	8.75%		8.74%
	100.00%		100.00%

#### SC Net Metering allocation adjustment

Total projected SC NEM MWhs	129,139
Marginal fuel rate per MWh for SC NEM	\$ 32.50
Fuel benefit to be directly assigned to SC Retail	\$ 4,197,018

#### System Fuel Expense

System Fuel Expense	\$ 1,676,309,949	McGee Exhibit 2 Schedule 3 Page 1 of 3
Fuel benefit to be directly assigned to SC Retail	\$ 4,197,018	
Total Fuel Costs for Allocation	\$ 1,680,506,966	McGee Exhibit 2 Schedule 3 Page 3 of 3, Line 5

#### Reconciliation

	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1	\$ 1,676,309,949			
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738			
Other fuel costs	\$ 1,648,140,211			
SC Net Metering Fuel Allocation adjustment	\$ 4,197,018			
Jurisdictional fuel costs after adj.	\$ 1,652,337,229			
Allocation to states/classes		66.16%	8.74%	25.10%
Jurisdictional fuel costs	\$ 1,652,337,229	\$ 1,093,186,310	\$ 144,414,274	\$ 414,736,644
Direct Assignment of Fuel benefit to SC Retail	\$ (4,197,018)	\$ -	\$ -	\$ (4,197,018)
Total system actual fuel costs	\$ 1,648,140,211	\$ 1,093,186,310	\$ 144,414,274	\$ 410,539,627
QF and REPS Compliance Purchased Power - Capacity	\$ 28,169,738	\$ 18,884,001		
Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1	\$ 1,676,309,949	\$ 1,112,070,311		

Exh. 2, Sch.3 page 3

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Jun 27 2019

DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Annualized Revenue  
 Billing Period Sept 2019 through Aug 2020  
 Docket E-7, Sub 1190

McGee Workpaper 8

	January 2019 Actuals			Normalized Sales	Total Annualized Revenues
	Revenue (a)	KWH Sales (b)	Cents/ kwh (a) / (b) *100 = ( c )	McGee EX 4 (d)	
Residential	\$ 217,323,443.93	2,194,230,798	9.9043	22,043,791	\$ 2,183,285,633
General	\$ 143,353,269.17	1,936,498,544	7.4027	23,487,580	\$ 1,738,716,194
Industrial	\$ 49,109,115.03	890,320,580	5.5159	12,454,944	\$ 687,001,167
Total	\$ 409,785,828.13	5,021,049,922		57,986,315	\$ 4,609,002,994

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Jun 27 2019

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Reagents and ByProducts  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 9

Reagent and ByProduct projections

Date	Ammonia	Urea	Limestone	Magnesium hydroxide	Calcium Carbonate	Reagent Cost	Gypsum (Gain)/ Loss	Ash (Gain)/Loss	Sale of By-Products (Gain)/Loss
9/1/2019	\$ 342,265	\$ 77,914	\$ 1,644,941	\$ 215,442	\$ 119,083	\$ 2,399,645	\$ 347,807	\$ (20,361)	\$ 327,447
10/1/2019	\$ 203,263	\$ 46,271	\$ 976,890	\$ 96,653	\$ 59,479	\$ 1,382,556	\$ 222,691	\$ (500)	\$ 222,191
11/1/2019	\$ 295,673	\$ 67,308	\$ 1,421,021	\$ 141,587	\$ 80,226	\$ 2,005,816	\$ 307,158	\$ (14,173)	\$ 292,986
12/1/2019	\$ 280,685	\$ 63,896	\$ 1,348,984	\$ 200,980	\$ 105,495	\$ 2,000,040	\$ 253,684	\$ (31,440)	\$ 222,244
1/1/2020	\$ 480,295	\$ 109,336	\$ 2,308,323	\$ 235,514	\$ 119,285	\$ 3,252,753	\$ 448,822	\$ (51,070)	\$ 397,752
2/1/2020	\$ 455,643	\$ 103,724	\$ 2,189,841	\$ 224,812	\$ 115,218	\$ 3,089,236	\$ 426,261	\$ (54,924)	\$ 371,337
3/1/2020	\$ 280,833	\$ 63,929	\$ 1,349,695	\$ 197,989	\$ 96,692	\$ 1,989,138	\$ 249,549	\$ (49,646)	\$ 199,903
4/1/2020	\$ 112,329	\$ 25,571	\$ 539,858	\$ 73,146	\$ 41,882	\$ 792,786	\$ 114,210	\$ (7,717)	\$ 106,493
5/1/2020	\$ 127,830	\$ 29,100	\$ 614,359	\$ 89,834	\$ 50,633	\$ 911,756	\$ 128,869	\$ (9,205)	\$ 119,664
6/1/2020	\$ 116,620	\$ 26,548	\$ 560,481	\$ 93,291	\$ 51,598	\$ 848,537	\$ 114,157	\$ (8,031)	\$ 106,126
7/1/2020	\$ 252,434	\$ 57,465	\$ 1,213,211	\$ 193,957	\$ 106,887	\$ 1,823,954	\$ 246,905	\$ (18,748)	\$ 228,157
8/1/2020	\$ 228,139	\$ 51,934	\$ 1,096,445	\$ 180,818	\$ 101,250	\$ 1,658,586	\$ 225,313	\$ (14,765)	\$ 210,548
	\$ 3,176,009	\$ 722,995	\$ 15,264,049	\$ 1,944,022	\$ 1,047,728	\$ 22,154,802	\$ 3,085,428	\$ (280,581)	\$ 2,804,847
Total Reagent cost and Sale of By-products									\$ 24,959,649

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Jun 27 2019

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% calculation test  
Twelve Months Ended December 31, 2017  
Billing Period Sept 2019 through Aug 2020  
Docket E-7, Sub 1190

McGee Workpaper 10

Line No.	Description	Forecast \$	(over)/under Collection \$	Total \$
1	Amount in current docket	107,380,554	72,488,427	179,868,981
2	Amount in Sub 1163, prior year docket	129,739,014	25,206,674	154,945,688
3	Increase/(Decrease)	(22,358,461)	47,281,753	24,923,292
4	2.5% of 2018 NC revenue of \$4,895,869,250.56			122,396,731
	Excess of purchased power growth over 2.5% of Revenue			0
<b>E-7 Sub 1190</b>				
WP 4	Purchases for REPS Compliance - Energy	63,867,566	66.16%	42,254,782
WP 4	Purchases for REPS Compliance Capacity	13,295,654	67.04%	8,912,938
WP 4	Purchases	2,029,948	66.16%	1,343,014
WP 4	QF Energy	58,754,197	66.16%	38,871,777
WP 4	QF Capacity	14,874,084	67.04%	9,971,063
WP 4	Allocated Economic Purchase cost	9,109,705	66.16%	6,026,981
		161,931,154		107,380,554
<b>E-7 Sub 1163</b>				
	Purchases for REPS Compliance	76,265,967	65.58%	50,015,221
	Purchases for REPS Compliance Capacity	16,389,786	66.39%	10,881,179
	Purchases	1,354,014	65.58%	887,962
	QF Energy	59,741,306	65.58%	39,178,348
	QF Capacity	13,954,158	66.39%	9,264,165
	Allocated Economic Purchase cost	29,753,184	65.58%	19,512,138
		197,458,415		129,739,014

2018	Jan18	Feb18	Mar18	Apr18	May18	June 18	Jul18	Aug18	Sep18	Oct18	Nov18	Dec18	12 ME
System KWH Sales - Sch 4, Adjusted	8,703,429,931	7,459,691,116	6,449,998,012	8,590,329,093	6,591,233,338	8,009,317,385	8,488,873,480	8,267,869,591	8,507,963,860	8,345,056,567	8,681,164,890	7,500,839,324	90,593,766,989
NC Retail KWH Sales - Sch 4	5,733,819,698	5,031,161,342	4,190,094,169	4,416,566,036	4,252,750,024	5,245,898,511	5,639,360,853	5,409,821,248	6,212,768,717	4,141,211,581	4,314,713,247	4,892,732,160	59,480,702,586
NC Retail % of Sales, Adjusted (Calc)	65.88%	67.44%	64.96%	67.02%	64.52%	65.49%	66.45%	65.43%	65.34%	65.27%	64.58%	65.23%	65.66%
NC retail production plant %	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%
<u>Fuel and Fuel related component of purchased power</u>													
System Actual \$ - Sch 3 Fuel \$:	\$ 54,851,829	\$ 19,768,561	\$ 11,751,953	\$ 8,071,622	\$ 7,589,225	\$ 7,858,735	\$ 25,151,873	\$ 24,971,461	\$ 21,909,434	\$ 27,821,901	\$ 26,826,328	\$ 40,057,563	\$ 277,528,485
System Actual \$ - Sch 3 Fuel-related; Economic Purchases	18,300,781	2,407,686	1,331,655	1,356,362	1,684,418	1,831,586	2,920,154	3,759,304	6,703,809	4,827,502	6,105,374	13,649,566	65,128,437
System Actual \$ - Sch 3 Fuel-related; Purchased Power for REPS Compliance	9,057,892	9,239,022	2,726,561	3,894,992	4,543,762	4,545,750	4,893,476	4,813,048	4,818,507	3,635,758	4,331,202	3,811,118	48,310,528
System Actual \$ - Sch 3 Fuel-related; SC DERP	122	125	184	163	218	223	232	223	213	203	157	186	2,149
System Actual \$ - Sch 3 Fuel-related; H8589 purpa Purchases	1,692,902	2,049,413	2,053,505	2,531,173	2,424,811	2,829,385	2,716,750	2,487,659	2,471,326	2,042,872	2,089,973	1,712,356	27,102,125
Total System Economic & QPS	77,902,966	27,465,007	17,663,808	16,754,932	16,241,434	17,110,679	35,682,485	36,031,695	35,902,289	38,328,236	39,353,034	59,430,759	418,066,724
<u>LESS:</u>													
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 30,897,067	\$ 15,346,230	\$ 7,372,650	\$ 7,540,311	\$ 5,735,851	\$ 6,332,102	\$ 23,572,626	\$ 21,641,030	\$ 15,422,513	\$ 23,414,484	\$ 20,577,089	\$ 28,953,467	\$ 206,805,400
Total System Economic \$ without Native Load Transfers	\$ 47,005,899	\$ 12,118,777	\$ 10,491,158	\$ 9,214,021	\$ 10,505,583	\$ 10,778,577	\$ 12,109,859	\$ 14,390,665	\$ 20,479,776	\$ 14,913,772	\$ 18,775,945	\$ 30,477,292	\$ 211,261,324
NC Actual \$ (Calc)	\$ 30,967,487	\$ 8,173,497	\$ 6,815,342	\$ 6,174,856	\$ 6,778,340	\$ 7,059,410	\$ 8,046,764	\$ 9,416,080	\$ 13,382,046	\$ 9,733,733	\$ 12,125,553	\$ 19,880,072	\$ 138,553,178
Billed rate (¢/kWh):	0.0868	0.0868	0.0868	0.0868	0.0868	0.0868	0.0868	0.0868	0.1631	0.1921	0.1922	0.1922	
Billed \$:	\$ 4,979,550	\$ 4,369,342	\$ 6,638,897	\$ 3,835,577	\$ 3,693,311	\$ 4,555,631	\$ 4,897,517	\$ 4,698,172	\$ 10,132,031	\$ 7,954,367	\$ 8,291,468	\$ 9,402,231	\$ 70,448,093
(Over)/ Under \$:	\$ 25,987,937	\$ 3,804,155	\$ 3,176,444	\$ 2,339,278	\$ 3,085,029	\$ 2,503,779	\$ 3,149,247	\$ 4,717,908	\$ 3,250,015	\$ 1,779,356	\$ 9,834,085	\$ 10,477,841	\$ 68,105,086
<u>Capacity component of purchased power</u>													
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$ 422,948	\$ 422,948	\$ 211,474	\$ 211,474	\$ 317,211	\$ 1,374,561	\$ 3,172,110	\$ 3,116,270	\$ 630,652	\$ 211,474	\$ 211,474	\$ 211,474	\$ 10,514,290
System Actual \$ - Capacity component of Purchased Power for REPS Compliance	486,469	465,590	421,064	517,448	589,749	567,326	2,279,476	2,238,065	2,451,979	1,649,703	659,013	594,902	12,870,784
System Actual \$ - Capacity component of H8589 Purpa QF purchases	316,410	362,951	415,622	397,922	232,512	271,686	1,225,424	1,199,461	1,251,154	924,601	242,932	159,399	7,000,074
System Actual \$ - Capacity component of SC DERP	57	37	64	28	13	21	78	84	72	79	19	13	565
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$ 1,225,884	\$ 1,251,526	\$ 1,048,224	\$ 1,126,872	\$ 1,089,485	\$ 2,213,614	\$ 6,677,086	\$ 6,553,880	\$ 4,334,057	\$ 2,785,857	\$ 1,113,438	\$ 965,788	\$ 30,385,713
NC Actual \$ (Calc) (1)	\$ 828,210	\$ 845,534	\$ 708,183	\$ 761,317	\$ 736,059	\$ 1,495,523	\$ 4,511,056	\$ 4,427,817	\$ 2,928,099	\$ 1,882,131	\$ 752,241	\$ 652,488	\$ 20,528,657
Billed rate (¢/kWh):	0.0241	0.0241	0.0241	0.0241	0.0241	0.0241	0.0241	0.0241	0.0289	0.0353	0.0353	0.0353	
Billed \$:	\$ 1,383,962	\$ 1,214,368	\$ 1,011,356	\$ 1,066,019	\$ 1,026,479	\$ 1,266,143	\$ 1,361,163	\$ 1,305,759	\$ 1,795,614	\$ 1,462,023	\$ 1,524,125	\$ 1,728,304	\$ 16,145,916
(Over)/Under \$:	\$ (555,752)	\$ (368,834)	\$ (303,173)	\$ (304,702)	\$ (290,420)	\$ 229,380	\$ 3,149,893	\$ 3,122,057	\$ 1,132,485	\$ 420,108	\$ (771,884)	\$ (1,075,816)	\$ 4,383,341
TOTAL (Over)/ Under \$:	\$ 25,432,185	\$ 3,435,322	\$ 2,873,271	\$ 2,034,577	\$ 2,794,608	\$ 2,733,159	\$ 6,299,140	\$ 7,839,965	\$ 4,382,500	\$ 2,199,474	\$ 9,062,201	\$ 9,402,025	\$ 72,488,427

Note: The billed rate for September and October are pro-rated based on number of billing days in cycle on new rate schedules.

	Jan17	Feb17	Mar17	Apr17	May17	June 17	July17	Aug17	Sep17	Oct17	Nov17	Dec17	12 ME
System kWh Sales - Sch 4 - Adjusted	7,537,708.015	6,594,206.632	6,332,740,783	7,147,766,120	5,895,728,591	7,366,162,606	8,217,118,035	8,266,156,880	7,695,553,967	6,672,440,753	6,415,671,302	7,061,789,900	85,127,463,884
NC retail kWh Sales - Sch 4	4,374,781,160	4,409,313,535	4,161,725,776	4,712,572,814	3,804,926,476	4,858,499,561	5,393,164,464	5,434,356,910	5,082,625,773	4,373,335,154	4,153,859,430	4,613,039,595	56,012,289,688
NC Retail % of Sales, Adjusted (Calc)	66.00%	67.28%	65.43%	66.49%	64.49%	65.78%	65.63%	65.90%	66.56%	65.54%	65.38%	65.30%	65.30%
NC retail production plant %	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%	67.09%
Fuel and Fuel-related component of purchased power													
System Actual \$-Sch 3 Fuels:													
System Actual \$-Sch 3 Fuel-rentals; Economic Purchases	\$ 14,477,669	\$ 16,876,907	\$ 10,096,048	\$ 8,192,583	\$ 9,721,355	\$ 10,071,142	\$ 12,026,892	\$ 14,840,029	\$ 18,993,838	\$ 17,656,690	\$ 22,489,532	\$ 25,927,577	\$ 181,370,559
System Actual \$-Sch 3 Fuel-rentals; Purchased Power for REPS Compliance	\$ 2,015,378	\$ 1,980,183	\$ 1,433,270	\$ 946,815	\$ 1,094,013	\$ 1,076,835	\$ 1,680,095	\$ 2,030,480	\$ 1,906,962	\$ 2,121,832	\$ 2,815,382	\$ 3,454,363	\$ 18,476,608
System Actual \$-Sch 3 Fuel-rentals; SC DERP	\$ 2,453,055	\$ 2,550,377	\$ 3,307,695	\$ 4,043,976	\$ 3,816,768	\$ 4,301,618	\$ 4,300,868	\$ 4,332,061	\$ 3,902,371	\$ 3,805,081	\$ 3,655,561	\$ 2,991,572	\$ 43,481,653
System Actual \$-Sch 3 Fuel-rentals; H2B89 purpa Purchases							(8,511)	242	242	225	208	147	(7,691)
Total System Economic & QF\$	\$ 18,946,102	\$ 21,415,467	\$ 14,827,013	\$ 13,183,374	\$ 15,449,595	\$ 18,207,855	\$ 24,609,608	\$ 27,262,832	\$ 26,030,861	\$ 31,345,609	\$ 34,724,791	\$ 260,635,243	\$ 260,635,243
LESS:													
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 10,063,655	\$ 13,734,418	\$ 7,330,149	\$ 6,099,895	\$ 7,838,809	\$ 6,973,202	\$ 9,283,031	\$ 11,761,965	\$ 17,022,958	\$ 15,515,603	\$ 18,675,639	\$ 20,326,204	\$ 144,615,679
Total System Economic \$ without Native Load Transfers	\$ 8,882,447	\$ 7,681,049	\$ 7,496,864	\$ 7,083,479	\$ 7,610,786	\$ 8,476,393	\$ 8,924,824	\$ 12,847,642	\$ 10,233,874	\$ 10,515,258	\$ 12,669,920	\$ 14,338,587	\$ 116,019,564
NC Actual \$(Calc)	\$ 5,662,290	\$ 5,167,630	\$ 4,306,615	\$ 4,674,111	\$ 4,387,622	\$ 5,575,614	\$ 5,857,513	\$ 8,466,452	\$ 6,815,306	\$ 6,897,044	\$ 8,283,489	\$ 9,405,725	\$ 76,294,410
Billed rate (C/AWh):	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.1074	0.0868	0.0868	0.0868	0.0868	
Billed \$:	\$ 5,343,741	\$ 4,736,553	\$ 4,470,365	\$ 5,062,086	\$ 4,087,123	\$ 5,218,829	\$ 5,793,154	\$ 5,837,295	\$ 4,414,019	\$ 3,798,034	\$ 3,642,167	\$ 4,006,205	\$ 56,409,592
(Over)/Under \$:	\$ 518,549	\$ 431,076	\$ 436,230	\$ (387,973)	\$ 300,499	\$ 356,703	\$ 64,358	\$ 2,629,198	\$ 2,401,207	\$ 3,094,010	\$ 4,641,322	\$ 5,399,519	\$ 19,884,818
Capacity component of purchased power													
System Actual \$- Capacity component of Cherokee County Cogen Purchases	\$ 419,334	\$ 419,333	\$ 209,616	\$ 209,616	\$ 314,425	\$ 1,302,507	\$ 3,144,246	\$ 3,144,246	\$ 628,850	\$ 209,616	\$ 209,616	\$ 209,616	\$ 10,480,821
System Actual \$- Capacity component of Purchased Power for REPS Compliance	\$ 392,592	\$ 412,586	\$ 456,453	\$ 533,339	\$ 443,290	\$ 522,270	\$ 2,084,627	\$ 2,035,395	\$ 1,996,602	\$ 1,894,518	\$ 513,390	\$ 374,434	\$ 11,555,496
System Actual \$- Capacity component of HB589 Purpa CF purchases							-	\$ 1,341,298	\$ 1,167,715	\$ 1,059,000	\$ 326,098	\$ 234,518	\$ 4,139,669
System Actual \$- Capacity component of SC DERP								[4,510]	99	101	37	22	(4,



**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Actual Sales by Jurisdiction - Subject to Weather**  
**Twelve Months Ended December 31, 2018**  
**Docket E-7, Sub 1190**  
**MWhs**

McGee Workpaper 11

Line #	Description	Reference	NORTH CAROLINA	SOUTH CAROLINA	Retail TOTAL COMPANY	% NC	% SC
1	Residential	Company Records	22,763,029	6,953,474	29,716,503	76.60	23.40
2	Total General Service	Company Records	24,162,007	5,800,354	29,962,361		
3	less Lighting and Traffic Signals		261,740	44,385	306,125		
4	General Service subject to weather		23,900,267	5,755,969	29,656,236	80.59	19.41
5	Industrial	Company Records	12,555,667	9,164,704	21,720,370	57.81	42.19
6	Total Retail Sales	1+2+5	59,480,703	21,918,532	81,399,234		
7	Total Retail Sales subject to weather	1+4+5	59,218,963	21,874,146	81,093,109	73.03	26.97

This does not exclude Greenwood and includes the impact of SC DERP net metering generation

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**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Weather Normalization Adjustment**  
**Twelve Months Ended December 31, 2018**  
**Docket E-7, Sub 1190**

REVISED McGee Workpaper 12  
 Page 1

Line #	Description	REFERENCE	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
	<u>Residential</u>						
1	Total Residential		(1,185,150)	76.60	(907,825)	23.40	(277,325)
	<u>General Service</u>						
2	Total General Service		(790,151)	80.59	(636,783)	19.41	(153,368)
	<u>Industrial</u>						
3	Total Industrial		(181,656)	57.81	(105,015)	42.19	(76,641)
4	Total Retail	L1+ L2+ L3	(2,156,957)		(1,649,623)		(507,334)
5	Wholesale		(250,198)				
6	Total Company	L4 + L5	<u>(2,407,155)</u>		<u>(1,649,623)</u>		<u>(507,334)</u>

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Weather Normalization Adjustment by Class by Month  
Twelve Months Ended December 31, 2018  
Docket E-7, Sub 1190

REVISED McGee Workpaper 12  
Page 2

	Residential	Commercial	Industrial	
2018	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	
JAN	(218,136)	(35,856)	-	
FEB	(21,771)	(2,405)	(1,317)	
MAR	297,124	-	-	
APR	(74,206)	(16,924)	41,146	
MAY	7,286	(10,553)	3,908	
JUN	(349,703)	(195,436)	(108,358)	
JUL	(226,914)	(108,742)	(35,233)	
AUG	51,266	25,765	13,164	
SEP	(130,432)	(533,537)	(522,476)	
OCT	(295,132)	119,399	432,355	
NOV	(13,417)	(2,573)	(4,846)	
DEC	(211,114)	(29,290)	-	
Total	(1,185,150)	(790,151)	(181,656)	(2,156,957)

Wholesale			
2018	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	(85,191)	1	Concord
FEB	29,047	2	Dallas
MAR	(49,586)	3	Forest City
APR	(3,762)	4	Kings Mountain
MAY	(27,157)	5	Due West
JUN	(32,305)	6	Prosperity
JUL	(10,478)	7	Lockhart
AUG	(1,285)	8	Western Carolina University
SEP	(48,942)	9	City of Highlands
OCT	(5,595)	10	Haywood
NOV	1,645	11	Piedmont
DEC	(16,590)	12	Rutherford
Total	(250,198)	13	Blue Ridge
		14	Greenwood

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Customer Growth Adjustment to kWh Sales  
Twelve Months Ended December 31, 2018  
Docket E-7, Sub 1190

Revised McGee Workpaper 13  
Page 1

Line	<u>Estimation</u> <u>Method</u> <sup>1</sup>		NC	SC	Wholesale	Total Company
			Proposed KWH <sup>1</sup>	Proposed KWH	Proposed KWH	
		<u>Rate Schedule</u>	Adjustment	Adjustment	Adjustment	
1	Regression	Residential	188,586,837	68,285,920		
2						
3		General Service (excluding lighting):				
4	Customer	General Service Small and Large	40,462,204	27,381,444		
5	Regression	Miscellaneous	(127,805)	272,435		
6		Total General	40,334,399	27,653,879		
7						
8		Lighting:				
9	Regression	T & T2 (GL/FL/PL/OL) <sup>2</sup>	(1,092,054)	1,005,314		
10	Regression	TS	(4,424)	(8,749)		
11		Total Lighting	(1,096,478)	996,565		
12						
13		Industrial:				
14	Customer	I - Textile	2,832,784	(1,947,494)		
15	Customer	I - Nontextile	12,316,671	1,330,441		
16		Total Industrial	15,149,455	(617,052)		
17						
18						
19		Total	242,974,212	96,319,312	80,403,406	419,696,930
					WP 13-2	

Notes:

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

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

"Customer" refers to the use of the Customer by Customer approach. See ND330 for further explanation

<sup>2</sup>T and T2 were combined due to North Carolina's FL & GL schedules being merged into OL & PL during the 12 month period.

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Customer Growth Adjustment to kWh Sales-Wholesale  
Twelve Months Ended December 31, 2018  
Docket E-7, Sub 1190

Revised McGee Workpaper 13  
Page 2

Calculation of Customer Growth Adjustment to KWH Sales - Wholesale

Line No.	Reference	
1 Total System Resale (kWh Sales)	Company Records	11,246,967,907
2 Less Intersystem Sales	Schedule 1	<u>1,945,444,289</u>
3 Total KWH Sales Excluding Intersystem Sales	L1 - L2	9,301,523,618
4 Residential Growth Factor	Line 8	<u>0.8644</u>
5 Adjustment to KWH's - Wholesale	L3 * L4 / 100	<u>80,403,406</u>
6 Total System Retail Residential kWh Sales	Company Records	29,716,502,591
7 2018 Proposed Adjustment KWH - Residential (NC+SC)	WP 13 1	256,872,757
8 Percent Adjustment	L7 / L6 * 100	0.8644

"RAC001": CarolinasOperating Revenue Report

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Coal Inventory Rider True-up Calculation  
Docket E-7, Sub 1190

Workpaper 14

Line No.			2018 August	2018 September	2018 October	2018 November	2018 December	2019 January	Total to Date
1	Full Load Burn 35 day supply	Input	2,209,515	2,209,515	2,209,515				
	Beginning Actual tons on hand								
2	(Including Terminals and In-transit) - actual	Input	2,349,694	2,356,042	2,244,622				
	Ending Actual tons on hand								
3	(Including Terminals and In-transit) - actual	Input	2,356,042	2,244,622	2,347,399				
4	Average tons on hand	(L2 + L3)/2	2,352,868	2,300,332	2,296,010				
5	Coal tons in excess of 35 days	L4 - L1	143,353	90,817	86,495				
6	Price per ton	Input	\$ 73.23	\$ 73.23	\$ 73.23				
7	Dollars in excess of 35 day supply	L5 * L6	\$ 10,497,741	\$ 6,650,537	\$ 6,334,064				
8	Number of days supply	L4 / 63,129 tons	37	36	36				
	Carrying cost percentage								
9	8/1/2018-12/31/2018 (a) (b)		0.745623%	0.745623%	0.745623%				
10	Total system amount to recover	L7 * L9	\$ 78,274	\$ 49,588	\$ 47,228			\$ 175,090	
11	NC allocation percentage	Input	66.6244%	66.6244%	66.6244%				66.6244%
12	Total NC retail amount to recover	L10 * L11	\$ 52,149	\$ 33,038	\$ 31,466			\$ 116,653	
13	NC Actual \$ Collected	Input	\$ 8,997	\$ 24,938	\$ 18,962	\$ 17,250	\$ 11,647	\$ 33	\$ 81,827
14	GRT & Reg. Fee percentage	Input	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
15	GRT and Reg Fee \$'s To Back Out	L13 * L14	\$ 13	\$ 35	\$ 26	\$ 24	\$ 16	\$ 0	\$ 114
16	Rider Excluding GRT & Reg Fee	L13 - L15	\$ 8,984	\$ 24,903	\$ 18,936	\$ 17,226	\$ 11,631	\$ 33	\$ 81,712
17	(Over)/Under Collected - at current tax rate	L12 - L16	\$ 43,165	\$ 8,135	\$ 12,530	\$ (17,226)	\$ (11,631)	\$ (33)	\$ 34,940
18	(Over)/Under Collected - at future tax rate	L19*(1-CTR)/(1-FTR)	\$ 43,016	\$ 8,107	\$ 12,486	\$ (17,166)	\$ (11,590)	\$ (33)	\$ 34,820

Notes:

(a) Carrying costs exclude gross receipts tax and regulatory fee.

(b) Revised to reflect current state income tax apportionment percentages.

	(OVER)/UNDER BALANCE	CUMULATIVE BASIS FOR COMPUTING RETURN	MONTHLY DEFERRED INCOME TAX 0410.11 - (Current Tax Rate)	CUMULATIVE DEFERRED INCOME TAX	NET DEFERRED BALANCE AFTER- TAX	MONTHLY AFTER- TAX RETURN ON DEFERRAL (Interest)	CUMULATIVE AFTER-TAX INTEREST INCOME	GROSS UP OF "AFTER-TAX RETURN ON DEFERRAL" TO PRETAX STATUS 0421.64	CUMULATIVE GROSS PRETAX RETURN
Rate Case			0.238686			0.005691		0.763314	
Rates 1/01/2018 - 12/31/18			0.238149			0.005692		0.763851	
Rates 1/1/19 - current			0.233503			0.005697		0.786498	
BEGINNING BAL.	0	0	0	0	0	0	0	0	0
Aug-18	43,165	43,165	10,193	10,193	32,972	94	94	123	123
Sep-18	8,135	51,300	1,921	12,114	39,186	205	299	267	390
Oct-18	12,530	63,830	2,959	15,073	48,757	250	549	326	716
Nov-18	(17,226)	46,604	(4,068)	11,005	35,599	240	789	313	1,029
Dec-18	(11,631)	34,973	(2,747)	8,258	26,715	177	966	231	1,260
Jan-19	(33)	34,940	(8)	8,250	26,690	152	1,118	198	1,459
Feb-19	0	34,940	0	8,250	26,690	152	1,270	198	1,657
Mar-19	0	34,940	0	8,250	26,690	152	1,422	198	1,855
Apr-19	0	34,940	0	8,250	26,690	152	1,574	198	2,054
May-19	0	34,940	0	8,250	26,690	152	1,726	198	2,252
Jun-19	0	34,940	0	8,250	26,690	152	1,878	198	2,451
Jul-19	0	34,940	0	8,250	26,690	152	2,030	198	2,649
Aug-19	0	34,940	0	8,250	26,690	152	2,182	198	2,847
ENDING BALANCE	34,940	34,940	8,250	8,250	26,690	2,182	2,182	2,847	2,847

Total Under-Collection 37,667

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Summary Comparison of Fuel and Fuel Related Cost Factors  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

*Second Supplemental*

REVISED McGee Exhibit 1

*I/A*

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
<u>Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)</u>						
1	Approved Fuel and Fuel Related Costs Factors	Input	1.7003	1.8314	1.8020	1.7769
2	EMF Increment	Input	0.0980	0.1068	0.2213	0.1290
3	EMF Interest Decrement cents/kWh	Input	0.0000	0.0000	0.0000	0.0000
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	1.7983	1.9382	2.0233	1.9059
<u>Fuel and Fuel Related Cost Factors Required by Rule R8-55</u>						
5	Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales	Exh 2 Sch 2 pg 2	1.9648	2.0622	2.1159	2.0393
6	NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales	Exh 2 Sch 3 pg 2	1.9969	2.0829	2.1266	2.0613
<u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%</u>						
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.7643	1.9310	1.8726	1.8574
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0483	0.0251	0.0208	0.0327
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	1.8126	1.9561	1.8934	1.8901
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1375	0.0927	0.2089	0.1346
11	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.0000	0.0000	0.0000	0.0000
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	1.9501	2.0488	2.1023	2.0247

Note: Fuel factors exclude regulatory fee

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

*Second Supplemental*

McGee Exhibit 2  
Schedule 1  
Page 1 of 3

*I/M*

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Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Workpaper 3 & 4	18,355,203	3.1057	570,050,837
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9			24,959,649
5	Total Fossil	Sum	39,176,820		1,098,194,572
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,785,509		1,455,692,040
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum Lines 10-12	83,018,229		1,346,517,369
14	Purchased Power	Workpaper 3 & 4	9,280,339	3.1771	294,841,746
15	JDA Savings Shared	Workpaper 5			19,972,407
16	Total Purchased Power		9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568	1.8000	1,661,331,522
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)	2.4698	(16,986,301)
19	Line losses and Company use	Line 21-Line 17-Line 18	(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,644,345,221
21	Projected System MWh Sales for Fuel Factor	Workpaper 7	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.8848



DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 1  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7	21,397,068	23,381,644	12,939,285	57,717,997
<b>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.7643	1.9310	1.8726	1.8574
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8126	1.9561	1.8934	1.8901
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1375	0.0927	0.2089	0.1346
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 1 Page 3	1.9501	2.0488	2.1023	2.0247

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95%  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 1  
Page 3 of 3

Line #	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)	Current Total Fuel Rate (Including Capacity and EMF) E-7, Sub 1163	Proposed Total Fuel Rate (Including Capacity and EMF)
		A	B	C	D	E	F	G
		Worksheet 7	Worksheet 8	Line 25 as a % of Column B	C / B	If D=0 then 0 If not then (C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 32,481,139	1.49%	0.1518	1.7983	1.9501
2	General Service/Lighting	23,381,644	1,738,716,194	25,867,199	1.49%	0.1106	1.9382	2.0488
3	Industrial	12,939,285	687,001,167	10,220,642	1.49%	0.0790	2.0233	2.1023
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 68,568,980	1.49%			
<b>Total Proposed Composite Fuel Rate:</b>								
5	Total Fuel Costs for Allocation	Worksheet 7	\$ 1,648,542,239					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	28,169,738					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,620,372,501					
8	Adjusted Projected System MWh Sales for Fuel Factor	Worksheet 7	87,243,844					
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
10	Allocation %	Line 9 / Line 8	66.16%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,072,038,447					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 1, Page 2	18,884,001					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,090,922,448					
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.8901					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1346					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.0247					
<b>Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</b>								
19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769					
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290					
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.9059					
23	Increase/(Decrease) In Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1188					
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 68,568,980					

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Calculation of Fuel and Fuel Related Cost Factors Using:**  
**Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales**  
**Test Period Ended December 31, 2018**  
**Billing Period September 2019 - August 2020**  
**Docket E-7, Sub 1190**

McGee Exhibit 2  
 Schedule 2  
 Page 1 of 3

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468
2	Coal	Calculated	19,611,529	3.1057	609,068,093
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,433,146		1,137,211,828
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation		184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	100,041,835		1,494,709,296
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,888,880)		(91,061,695)
13	Net Generation	Sum	84,274,555		1,385,534,625
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	93,554,894		1,700,348,778
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,683,362,477
21	Normalized Test Period MWh Sales	Exhibit 4	88,500,170		88,500,170
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9021

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 2  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Normalized Test Period MWh Sales	Exhibit 4	22,043,791	23,564,462	12,465,801	58,074,054
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0468	0.0249	0.0216	0.0325
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.7805	1.9446	1.8854	1.8722
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0468	0.0249	0.0216	0.0325
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8273	1.9695	1.9070	1.9047
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1375	0.0927	0.2089	0.1346
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 2 Page 3	1.9648	2.0622	2.1159	2.0393

Note: Rounding differences may occur

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

REVISED McGee Exhibit 2  
Schedule 2  
Page 3 of 3

Line #	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/(Decrease) as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	D	E	F	G
		Exhibit 4	Worksheet 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential	22,043,791	\$ 2,183,285,633	\$ 36,697,928	1.68%	0.1665	1.7983	1.9648
2	General Service/Lighting	23,564,462	\$ 1,738,716,194	29,225,347	1.68%	0.1240	1.9382	2.0622
3	Industrial	12,465,801	\$ 687,001,167	11,547,513	1.68%	0.0926	2.0233	2.1159
4	NC Retail	58,074,054	\$ 4,609,002,994	\$ 77,470,788				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Worksheet 7a	\$ 1,687,559,495
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	28,169,738
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,659,389,757
8	Normalized Test Period System MWh Sales for Fuel Factor	Worksheet 7a	88,629,309
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,074,054
10	Allocation %	Line 9 / Line 8	65.52%
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,087,232,168
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 2, Page 2	18,884,001
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,106,116,170
14	NC Retail Normalized Test Period MWh Sales	Line 4	58,074,054
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9047
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1346
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000
18	Total Proposed Composite Fuel Rate	Sum	2.0393

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000
22	Total Current Composite Fuel Rate	Sum	1.9059
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1334
24	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,074,054
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 77,470,788

Note: Rounding differences may occur

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**DUKE ENERGY CAROLINAS**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales**  
**Test Period Ended December 31, 2018**  
**Billing Period September 2019 - August 2020**  
**Docket E-7, Sub 1190**

McGee Exhibit 2  
 Schedule 3  
 Page 1 of 3

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 2	56,739,499	0.6115	346,981,926
2	Coal	Calculated	19,636,789	3.1057	609,852,590
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086
4	Reagents and Byproducts	Workpaper 9	-		24,959,649
5	Total Fossil	Sum	40,458,406		1,137,996,325
6	Hydro	Workpaper 3	4,839,425		
7	Net Pumped Storage	Workpaper 3	(3,874,211)		
8	Total Hydro	Sum	965,214		
9	Solar Distributed Generation	Workpaper 3	184,444		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	98,347,563		1,484,978,251
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(878,400)		(18,112,976)
12	Less Catawba Joint Owners	Calculated	(14,450,934)		(88,383,179)
13	Net Generation	Sum	83,018,229		1,378,482,097
14	Purchased Power	Workpaper 3 & 4	9,280,339		294,841,746
15	JDA Savings Shared	Workpaper 5	-		19,972,407
16	Total Purchased Power	Sum	9,280,339		314,814,153
17	Total Generation and Purchased Power	Line 13 + Line 16	92,298,568		1,693,296,250
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(687,755)		(16,986,301)
19	Line losses and Company use		(4,366,969)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			1,676,309,949
21	Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844		87,243,844
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			1.9214

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DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

Revised McGee Exhibit 2  
Schedule 3  
Page 2 of 3

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpaper 7b	21,397,068	23,381,644	12,939,285	57,717,997
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				\$ 14,874,084
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Input				67.04%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on Production Plant %	Line 6 * Line 7	\$ 10,325,952	\$ 5,864,785	\$ 2,693,265	\$ 18,884,001
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0483	0.0251	0.0208	0.0327
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8111	1.9651	1.8969	1.8940
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0483	0.0251	0.0208	0.0327
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8594	1.9902	1.9177	1.9267
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1375	0.0927	0.2089	0.1346
14	EMF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	1.9969	2.0829	2.1266	2.0613

Note: Rounding differences may occur

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Line #	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)	Current Total Fuel Rate (Including Capacity and EMF) E-7, Sub 1163	Proposed Total Fuel Rate (Including Capacity and EMF)
		A	B	C	C / B = D	E	F	G
		Workpaper 7b	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential	21,397,068	\$ 2,183,285,633	\$ 42,487,955	1.95%	0.1986	1.7983	1.9969
2	General Service/Lighting	23,381,644	\$ 1,738,716,194	\$ 33,836,386	1.95%	0.1447	1.9382	2.0829
3	Industrial	12,939,285	\$ 687,001,167	\$ 13,369,426	1.95%	0.1033	2.0233	2.1266
4	NC Retail	57,717,997	\$ 4,609,002,994	\$ 89,693,767				

Total Proposed Composite Fuel Rate:

5	Total Fuel Costs for Allocation	Workpaper 7b	\$ 1,680,506,966
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	28,169,738
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,652,337,228
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,243,844
9	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
10	Allocation %	Line 9 / Line 8	66.16%
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,093,186,310
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 3, Page 2	18,884,001
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,112,070,311
14	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9267
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.1346
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000
18	Total Proposed Composite Fuel Rate	Sum	2.0613

Total Current Composite Fuel Rate - Docket E-7 Sub 1163:

19	Current composite Fuel Rate cents/kWh	McGee Exhibit 1	1.7769
20	Current composite EMF Rate cents/kWh	McGee Exhibit 1	0.1290
21	Current composite EMF Interest Rate cents/kWh	McGee Exhibit 1	0.0000
22	Total Current Composite Fuel Rate	Sum	1.9059
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.1554
24	NC Retail Projected Billing Period MWh Sales	Line 4	57,717,997
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 89,693,767

Note: Rounding differences may occur



DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Proposed Composite  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

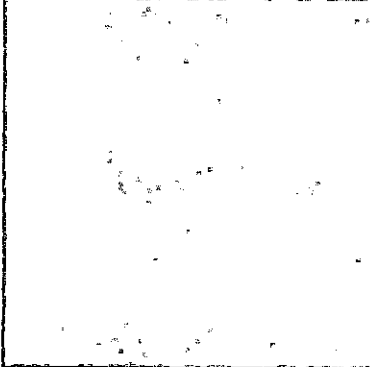
Revised McGee Exhibit 3  
Page 1 of 4

*Second Supplemental*

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Line No.	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018			5,733,820	\$ 70,210,460
2	February			5,031,181	\$ (21,289,748)
3	March(1)			4,190,094	\$ 4,767,793
4	April(1)			4,416,566	\$ (13,736,437)
5	May			4,252,750	\$ 6,136,829
6	June(1)			5,245,689	\$ 6,622,242
7	July(1)			5,639,361	\$ 14,497,484
8	August			5,409,821	\$ 13,507,110
9	September			6,212,764	\$ (5,592,874)
10	October			4,141,212	\$ 16,417,033
11	November			4,314,713	\$ 17,477,682
12	December			4,892,732	\$ 22,827,662
13	Total Test Period			59,480,703	\$ 131,845,236
14	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 53,688,503
15	Include Under Recovery related to Coal Inventory Rider				\$ 37,667
16	Adjusted (Over)/ Under Recovery				\$ 78,194,400
17	NC Retail Normalized Test Period MWh Sales				Exhibit 4 58,074,054
18	Experience Modification Increment (Decrement) cents/kWh				0.1346

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 16.  
Rounding differences may occur

DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Experience Modification Factor - Residential  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

Revised McGee Exhibit 3  
 Page 2 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	2.2454	1.7919	2,747,953	\$ 12,463,615
2	February	1.2214	1.7919	2,101,525	\$ (11,989,284)
3	March <sup>(1)</sup>	1.8936	1.7919	1,546,024	\$ 1,587,096
4	April <sup>(1)</sup>	1.5682	1.7919	1,557,073	\$ (3,469,659)
5	May	2.2261	1.7919	1,361,386	\$ 5,910,833
6	June <sup>(1)</sup>	1.9042	1.7919	1,940,879	\$ 2,162,126
7	July <sup>(1)</sup>	1.9028	1.7919	2,227,922	\$ 2,375,059
8	August	1.9776	1.7885	2,050,040	\$ 3,875,805
9	September	1.7474	1.7477	2,200,376	\$ (6,784)
10	October	2.0726	1.7004	1,554,551	\$ 5,784,976
11	November	2.3435	1.7003	1,436,836	\$ 9,241,689
12	December	1.9167	1.7003	2,038,462	\$ 4,411,281
13	Total Test Period			22,763,029	\$ 32,346,754
14	Test Period Wtd Avg. ¢/kWh	1.9096	1.7671		
15	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 2,061,427
16	Include Under Recovery related to Coal Inventory Rider				\$ 14,415
17	Adjusted (Over)/Under Recovery				\$ 30,299,742
18	NC Retail Normalized Test Period MWh Sales		Exhibit 4	22,043,791	
19	Experience Modification Increment (Decrement) cents/kWh				0.1375

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.  
 Rounding differences may occur

DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Experience Modification Factor - GS/Lighting  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

Revised McGee Exhibit 3  
 Page 3 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	3.5376	1.9253	2,053,224	\$ 33,104,497
2	February	1.5865	1.9253	1,899,154	\$ (6,434,005)
3	March <sup>(1)</sup>	2.0122	1.9253	1,709,988	\$ 1,503,768
4	April <sup>(1)</sup>	1.5762	1.9253	1,819,014	\$ (6,335,002)
5	May	1.9140	1.9253	1,860,965	\$ (210,465)
6	June <sup>(1)</sup>	1.9786	1.9253	2,190,371	\$ 1,145,088
7	July <sup>(1)</sup>	2.1543	1.9253	2,291,796	\$ 5,295,453
8	August	2.1026	1.9219	2,244,902	\$ 4,054,944
9	September	1.6846	1.8801	2,660,685	\$ (5,202,149)
10	October	2.1707	1.8315	1,727,851	\$ 5,860,345
11	November	2.1580	1.8314	1,824,017	\$ 5,957,400
12	December	2.4310	1.8314	1,880,041	\$ 11,272,678
13	Total Test Period			24,162,007	\$ 50,012,553
14	Test Period Wtd Avg. ¢/kWh	2.1057	1.8989		
15	Adjustment remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 28,174,260
16	Include Under Recovery related to Coal Inventory Rider				\$ 15,301
17	Adjusted (Over)/ Under Recovery				\$ 21,853,594
18	NC Retail Normalized Test Period MWh Sales			Exhibit 4	23,564,462
19	Experience Modification Increment (Decrement) cents/kWh				0.0927

Notes:

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.

Rounding differences may occur

DUKE ENERGY CAROLINAS  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Experience Modification Factor - Industrial  
 Test Period Ended December 31, 2018  
 Billing Period September 2019 - August 2020  
 Docket E-7, Sub 1190

Revised McGee Exhibit 3  
 Page 4 of 4

Line #	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2018	4.6719	2.0297	932,643	\$ 24,642,348
2	February	1.7515	2.0297	1,030,502	\$ (2,866,460)
3	March <sup>(1)</sup>	2.2081	2.0297	934,082	\$ 1,676,929
4	April <sup>(1)</sup>	1.6509	2.0297	1,040,479	\$ (3,931,775)
5	May	2.0721	2.0297	1,030,399	\$ 436,461
6	June <sup>(1)</sup>	2.3283	2.0297	1,114,438	\$ 3,315,028
7	July <sup>(1)</sup>	2.6319	2.0297	1,119,643	\$ 6,826,972
8	August	2.5265	2.0263	1,114,879	\$ 5,576,360
9	September	1.8991	1.9275	1,351,703	\$ (383,942)
10	October	2.3580	1.8024	858,810	\$ 4,771,711
11	November	2.0182	1.8020	1,053,860	\$ 2,278,593
12	December	2.5353	1.8020	974,229	\$ 7,143,703
13	<b>Total Test Period</b>			<b>12,555,667</b>	<b>\$ 49,485,928</b>
14	Test Period Wtd Avg. c/kWh	2.3595	1.9661		
15	Adjustment to remove (Over) / Under Recovery - January - March 2018 <sup>(2)</sup>				\$ 23,452,816
16	Include Under Recovery related to Coal Inventory Rider				\$ 7,951
17	<b>Adjusted (Over)/ Under Recovery</b>				<b>\$ 26,041,062</b>
18	NC Retail Normalized Test Period MWh Sales		Exhibit 4		12,465,801
19	Experience Modification Increment (Decrement) cents/KWh				0.2089

**Notes:**

<sup>(1)</sup> Prior period corrections not included in rate incurred but are included in over/(under) recovery total

<sup>(2)</sup> January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.

Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.

Rounding differences may occur

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Sales, Fuel Revenue, Fuel Expense and System Peak  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

*Second Supplemental*  
Revised McGee Exhibit 4

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Line #	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
1	Test Period MWh Sales (excluding Inter system sales)	Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC retail)	90,487,628	59,480,703	22,763,029	24,162,007	12,555,667
2	Customer Growth MWh Adjustment	Workpaper 13 Pg 1	419,697	242,974	188,587	39,238	15,149
3	Weather MWh Adjustment	Workpaper 12	(2,407,155)	(1,649,623)	(907,825)	(636,783)	(105,015)
4	Total Normalized MWh Sales	Sum	88,500,170	58,074,054	22,043,791	23,564,462	12,465,801

5	Test Period Fuel and Fuel Related Revenue *		\$ 1,670,560,911	\$ 1,107,911,215			
6	Test Period Fuel and Fuel Related Expense *		\$ 1,852,283,575	\$ 1,239,756,450			
7	Test Period Unadjusted (Over)/Under Recovery		\$ 181,722,664	\$ 131,845,236			

		Winter Coincidental Peak (CP) kW
8	Total System Peak	18,875,799
9	NC Retail Peak	12,650,981
10	NC Residential Peak	6,917,677
11	NC General Service/Lighting Peak	3,929,002
12	NC Industrial Peak	1,804,302

- 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.

*Second Supplemental*

McGee Exhibit 5

*I/A*

DUKE ENERGY CAROLINAS  
North Carolina Annual Fuel and Fuel Related Expense  
Nuclear Capacity Ratings  
Test Period Ended December 31, 2018  
Billing Period September 2019 - August 2020  
Docket E-7, Sub 1190

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Unit	Rate Case		Proposed Capacity Rating MW
	Docket E-7, Sub 1146	Fuel Docket E-7, Sub 1163	
Oconee Unit 1	847	847.0	847.0
Oconee Unit 2	848	848.0	848.0
Oconee Unit 3	859	859.0	859.0
McGuire Unit 1	1,158	1158.0	1158.0
McGuire Unit 2	1,158	1157.6	1157.6
Catawba Unit 1	1,160	1160.1	1160.1
Catawba Unit 2	1,150	1150.1	1150.1
Total Company	7,180	7,179.8	7,179.8

*Second Supplemental*

Revised McGee Exhibit 6

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Jun 27 2019

DECEMBER 2018 MONTHLY FUEL FILING

DUKE ENERGY CAROLINAS  
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1161

Line No.	December 2018	12 Months Ended December 2018
1 Fuel and fuel-related costs	\$ 167,457,560	\$ 1,885,269,343
MWH sales:		
2 Total system sales	7,718,637	92,433,072
3 Less intersystem sales	228,210	1,945,444
4 Total sales less intersystem sales	7,490,427	90,487,628
5 Total fuel and fuel-related costs (¢/KWH) (line 1/line 4)	2.2356	2.0835
6 Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 2a Total)	1.7709	
Generation Mix (MWH): Fossil (by primary fuel type):		
7 Coal	1,366,724	22,653,740
8 Fuel Oil	12,042	232,515
9 Natural Gas - Combined Cycle	1,059,332	13,695,555
10 Natural Gas - Combustion Turbine	42,178	2,550,671
11 Natural Gas - Steam	127,536	187,574
12 Biogas	3,259	30,204
13 Total fossil	2,611,071	39,350,259
14 Nuclear 100%	4,981,169	59,936,028
15 Hydro - Conventional	368,610	2,877,050
16 Hydro - Pumped storage	(44,946)	(529,226)
17 Total hydro	323,664	2,347,824
18 Solar Distributed Generation	5,768	130,018
19 Total MWH generation	7,921,672	101,764,129
20 Less joint owners' portion - Nuclear	1,147,290	15,165,371
21 Less joint owners' portion - Combined Cycle	27,377	460,452
22 Adjusted total MWH generation	6,747,005	86,138,306

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



DUKE ENERGY CAROLINAS  
DETAILS OF FUEL AND FUEL-RELATED COSTS

Docket No. E-7, Sub 1161

Fuel and fuel-related costs:	December 2018	12 Months Ended December 2018
0501110 coal consumed - steam	\$ 46,847,568	\$ 675,888,074
0501222-0501223 biomass/test fuel consumed	-	-
0501310 fuel oil consumed - steam	1,223,578	8,586,389
0501330 fuel oil light-off - steam	593,669	7,287,851
Total Steam Generation - Account 501	<u>48,664,815</u>	<u>691,762,314</u>
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	23,069,842	275,311,826
Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	2,272,971	98,161,049
0547100 natural gas consumed - Steam	5,696,114	8,633,545
0547101 natural gas consumed - Combined Cycle	31,773,516	373,047,230
0547106 biogas consumed - Combined Cycle	175,961	1,523,560
0547200 fuel oil consumed - Combustion Turbine	57,020	25,830,495
Total Other Generation - Account 547	<u>39,975,582</u>	<u>507,195,879</u>
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,549,134	27,110,200
Total Reagents	<u>1,549,134</u>	<u>27,110,200</u>
By-products		
Net proceeds from sale of by-products	583,525	6,085,203
Total By-products	<u>583,525</u>	<u>6,085,203</u>
Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	113,842,898	1,507,465,422
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	211,474	10,514,290
Capacity component of purchased power (renewables)	594,915	13,300,661
Capacity component of purchased power (PURPA)	159,399	6,541,261
Fuel and fuel-related component of purchased power	59,686,689	434,709,945
Total Purchased Power and Net Interchange - Account 555	<u>60,652,477</u>	<u>465,066,157</u>
Less:		
Fuel and fuel-related costs recovered through intersystem sales	6,944,585	86,336,253
Fuel in loss compensation	92,474	925,224
Solar integration charge revenue	758	758
Total Fuel Credits - Accounts 447 /456	<u>7,037,817</u>	<u>87,262,235</u>
Total Fuel and Fuel-related Costs	<u>\$ 167,457,560</u>	<u>\$ 1,885,269,344</u>

Notes: Detail amounts may not add to totals shown due to rounding.  
Report reflects net ownership costs of jointly owned facilities.

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

**December 2018**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
<b>Economic</b>	<b>\$</b>	<b>\$</b>				
Cherokee County Cogeneration Partners	\$ 1,287,426	\$ 211,474	27,369	\$ 946,407	\$ 129,545	
City of Kings Mountain	8,979	8,979	-	-	-	
DE Progress - Native Load Transfer	27,945,591	-	741,793	23,410,601	4,543,696	\$ (8,706)
DE Progress - Native Load Transfer Benefit	1,156,134	-	-	1,156,134	-	
DE Progress - Fees	(156,964)	-	-	-	(156,964)	
Haywood Electric - Economic	40,903	20,630	336	12,367	7,906	
Macquarie Energy, LLC	6,826,931	-	146,439	4,164,428	2,662,503	
NCEMC - Economic	115,200	-	3,600	70,272	44,928	
NCMPA Instantaneous - Economic	1,813,810	-	53,310	1,088,467	725,343	
NTE Carolinas LLC	3,232,610	-	78,830	1,971,892	1,260,718	
Piedmont Municipal Power Agency	307,201	-	10,960	184,355	122,846	
PJM Interconnection, LLC	11,214,935	-	313,334	6,841,110	4,373,825	
Southern Company Services, Inc.	250,370	-	9,167	152,726	97,644	
Tennessee Valley Authority	95,400	-	2,600	58,804	37,596	
Town of Dallas	584	584	-	-	-	
Town of Forest City	19,856	19,856	-	-	-	
	<b>\$ 54,159,966</b>	<b>\$ 261,523</b>	<b>1,387,738</b>	<b>\$ 40,057,563</b>	<b>\$ 13,849,586</b>	<b>\$ (8,706)</b>
<b>Renewable Energy</b>						
REPS	\$ 4,406,020	\$ 594,902	77,027	\$ -	\$ 3,811,118	\$ -
DERP - Purchased Power	149	13	3	-	136	
	<b>\$ 4,406,169</b>	<b>\$ 594,915</b>	<b>77,030</b>	<b>\$ -</b>	<b>\$ 3,811,254</b>	<b>\$ -</b>
<b>HB589 PURPA Purchases</b>						
Qualifying Facilities	1,936,441	159,399	37,040	-	1,712,356	64,686
	<b>\$ 1,936,441</b>	<b>\$ 159,399</b>	<b>37,040</b>	<b>\$ -</b>	<b>\$ 1,712,356</b>	<b>\$ 64,686</b>
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 1,244,696	\$ 724,668	26,268	\$ 317,217	-	\$ 202,811
Haywood Electric	351,238	152,148	7,201	121,445	-	77,645
Macquarie Energy, LLC	957,341	-	12,433	583,978	-	373,363
NCEMC - Other	4,398	4,398	-	-	-	-
NCMPA	155,400	-	1,110	94,794	-	60,606
Piedmont Electric Membership Corp.	592,764	346,426	11,904	150,266	-	96,072
Generation Imbalance	1,078,303	-	8,735	242,385	-	835,918
Energy Imbalance - Purchases	(277,960)	-	(11,956)	(169,556)	-	(108,404)
Energy Imbalance - Sales	(269,174)	-	-	(269,534)	-	360
Other Purchases	648	-	19	-	-	648
	<b>\$ 3,837,654</b>	<b>\$ 1,227,640</b>	<b>55,714</b>	<b>\$ 1,070,995</b>	<b>\$ -</b>	<b>\$ 1,539,019</b>
<b>Total Purchased Power</b>	<b>\$ 64,340,230</b>	<b>\$ 2,243,477</b>	<b>1,557,522</b>	<b>\$ 41,128,558</b>	<b>\$ 19,373,196</b>	<b>\$ 1,594,999</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	6,629,878	-	579,425	3,870,366	-	2,759,512
WS Lee Joint Owner	1,406,837	-	43,619	1,229,697	-	177,140
Total Interchanges In	8,036,714	-	623,044	5,100,063	-	2,936,651
						(1)
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(7,985,890)	(134,209)	(695,363)	(4,647,804)	-	(3,203,877)
Catawba- Net Negative Generation	(66,943)	-	(2,964)	(51,150)	-	(15,793)
WS Lee Joint Owner	(1,402,174)	-	(42,514)	(1,216,174)	-	(186,000)
Total Interchanges Out	(9,455,007)	(134,209)	(740,841)	(5,915,128)	-	(3,405,670)
<b>Net Purchases and Interchange Power</b>	<b>\$ 62,921,937</b>	<b>\$ 2,109,268</b>	<b>1,439,725</b>	<b>\$ 40,313,493</b>	<b>\$ 19,373,196</b>	<b>\$ 1,125,979</b>

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

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**DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEW**

**DECEMBER 2018**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	\$ 19,312	-	475	\$ 16,530	\$ 2,782
SC Electric & Gas - Emergency	22,373	-	383	21,699	674
<b>Market Based:</b>					
NCMPA	110,344	\$ 87,568	392	22,919	(143)
PJM Interconnection, LLC.	69	-	-	-	69
SC Electric & Gas	2,050	-	-	-	2,050
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	287,133	-	-	287,133	-
DE Progress - Native Load Transfer	8,259,541	-	225,840	6,529,920	1,729,621
Generation Imbalance	76,917	-	1,120	66,384	10,533
BPM Transmission	(67,517)	-	-	-	(67,517)
<b>Total Intersystem Sales</b>	<b>\$ 8,710,222</b>	<b>\$ 87,568</b>	<b>228,210</b>	<b>\$ 6,944,585</b>	<b>\$ 1,678,069</b>

\* Sales for resale other than native load priority.

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

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

**Twelve Months Ended  
December 2018**

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel-Related \$
Economic	\$	\$				
Cherokee County Cogeneration Partners	\$ 31,713,488	\$ 10,514,290	536,248	\$ 18,602,696	\$ 2,596,502	
City of Kings Mountain	107,748	107,748	-	-	-	
DE Progress - Native Load Transfer	194,410,950	-	5,426,920	174,475,494	19,671,245	\$ 264,221
DE Progress - Native Load Transfer Benefit	13,751,828	-	-	13,751,828	-	
DE Progress - Fees	(1,093,167)	-	-	-	(1,093,167)	
EDF Trading North America, LLC	76,115	-	3,005	46,430	29,685	
Exelon Generation Company, LLC	118,087	-	4,060	72,034	46,053	
Haywood Electric - Economic	487,779	251,870	5,097	143,904	92,005	
Macquarie Energy, LLC	29,508,026	-	770,088	17,999,896	11,508,130	
Morgan Stanley Capital Group	24,839	-	1,112	15,152	9,687	
NCEMC	169,200	-	5,490	103,212	65,988	
NCMPA	4,490,834	-	71,519	3,053,238	1,437,596	
NCMPA Load Following Economic	16,007,553	-	506,485	10,121,981	5,865,572	
NTE Carolinas LLC	7,004,810	-	195,650	4,272,935	2,731,875	
Piedmont Municipal Power Agency	2,609,446	-	88,744	1,680,985	928,461	
PJM Interconnection, LLC	51,171,173	-	864,902	31,214,417	19,956,766	
Rainbow Energy Marketing Corporation	87,525	-	3,285	53,390	34,135	
South Carolina Electric & Gas Company	212,527	-	4,600	127,811	84,716	
Southern Company Services, Inc.	1,289,556	-	45,702	786,630	502,926	
Tennessee Valley Authority	1,603,241	-	30,841	977,977	625,264	
The Energy Authority	38,483	-	1,167	23,475	15,008	
Town of Dallas	7,008	7,008	-	-	-	
Town of Forest City	238,272	238,272	-	-	-	
	<u>\$ 354,035,331</u>	<u>\$ 11,119,188</u>	<u>8,564,915</u>	<u>\$ 277,523,485</u>	<u>\$ 65,128,437</u>	<u>\$ 264,221</u>
<b>Renewable Energy</b>						
REPS	\$ 62,977,408	\$ 13,300,098	976,170	\$ -	\$ 49,677,312	\$ -
DERP - Purchased Power	2,713	565	49	-	2,148	-
DERP - Net Metered Generation	43,550	7,964	15	-	-	35,586
	<u>\$ 63,023,671</u>	<u>\$ 13,308,625</u>	<u>\$ 976,235</u>	<u>\$ -</u>	<u>\$ 49,679,460</u>	<u>\$ 35,586</u>
<b>HB589 PURPA Purchases</b>						
Qualifying Facilities	33,208,999	6,541,261	549,098	\$ -	\$ 25,585,400	\$ 1,082,338
	<u>\$ 33,208,999</u>	<u>6,541,261</u>	<u>549,098</u>	<u>\$ -</u>	<u>\$ 25,585,400</u>	<u>\$ 1,082,338</u>
<b>Non-dispatchable</b>						
Blue Ridge Electric Membership Corp.	\$ 14,972,210	\$ 8,136,773	295,129	\$ 4,169,615	\$ -	\$ 2,665,822
Haywood Electric	4,206,307	1,935,370	80,216	1,385,271	885,666	
Macquarie Energy, LLC	18,266,985	-	307,544	11,142,861	7,124,124	
NCEMC - Other	647,276	52,776	6,570	362,645	231,855	
NCMPA - Reliability	245,400	-	2,610	149,694	95,706	
NTE Carolinas LLC	1,828,310	-	36,865	1,115,269	713,041	
Piedmont Electric Membership Corp.	7,179,987	3,902,138	140,568	1,969,488	1,278,361	
South Carolina Electric & Gas Company	131,734	-	1,400	80,358	51,376	
Southern Company Services, Inc.	2,984,720	-	47,510	1,820,679	1,164,041	
Generation Imbalance	3,782,664	-	82,265	1,693,951	1,888,703	
Energy Imbalance - Purchases	2,199,376	-	25,123	1,350,748	848,628	
Energy Imbalance - Sales	(1,765,005)	-	-	(6,529,253)	4,764,248	
Other Purchases	12,518	-	352	-	12,518	
	<u>\$ 54,692,482</u>	<u>\$ 14,027,057</u>	<u>1,026,152</u>	<u>\$ 18,941,336</u>	<u>\$ -</u>	<u>\$ 21,724,089</u>
<b>Total Purchased Power</b>	<b>\$ 504,960,483</b>	<b>\$ 44,998,131</b>	<b>11,116,400</b>	<b>\$ 296,464,821</b>	<b>\$ 140,393,297</b>	<b>\$ 23,106,234</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	91,135,514	-	7,642,809	56,961,998	34,173,516	
WS Lee Joint Owner	7,725,713	-	271,306	6,611,033	1,114,680	
Total Interchanges In	<u>98,861,227</u>	<u>-</u>	<u>7,914,116</u>	<u>63,573,032</u>	<u>-</u>	<u>35,288,195</u>
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(93,139,372)	(1,580,207)	(7,784,646)	(57,610,256)	(33,948,909)	
Catawba - Net Negative Generation	(231,152)	-	(11,304)	(180,241)	(50,911)	
WS Lee Joint Owner	(9,390,983)	-	(327,441)	(7,930,708)	(1,460,275)	
Total Interchanges Out	<u>(102,761,507)</u>	<u>(1,580,207)</u>	<u>(8,123,391)</u>	<u>(65,721,205)</u>	<u>-</u>	<u>(35,460,095)</u>
<b>Net Purchases and Interchange Power</b>	<b>\$ 501,060,203</b>	<b>\$ 43,415,924</b>	<b>10,907,125</b>	<b>\$ 294,316,648</b>	<b>\$ 140,393,297</b>	<b>\$ 22,934,334</b>

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

**DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended  
DECEMBER 2018**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
DE Progress - Emergency	\$ 15,390	-	333	\$ 13,113	\$ 2,277
SC Public Service Authority - Emergency	2,315,135	\$ 224,000	7,527	2,007,790	83,345
SC Electric & Gas - Emergency	103,368 A	- A	1,974	87,826	15,542
<b>Market Based:</b>					
Central Electric Power Cooperative, Inc.	2,793,800 B	2,793,800 B	-	-	-
EDF Trading Company	2,600	-	50	1,976	624
Macquarie Energy, LLC	19,200	-	-	-	19,200
NCMPA	1,454,481	1,050,069	5,529	368,868	35,544
PJM Interconnection, LLC.	1,502,443	-	24,365	918,000	584,443
SC Electric & Gas	317,950 A	- A	4,050	268,115	49,835
Tennessee Valley Authority	49,525	-	1,025	37,501	12,024
The Energy Authority	55,545	-	604	33,101	22,444
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	5,666,748	-	-	5,666,748	-
DE Progress - Native Load Transfer	78,027,793	-	1,883,308	74,808,327	3,219,466
Generation Imbalance	1,760,829	-	16,679	2,124,888	(364,059)
BPM Transmission	(245,056)	-	-	-	(245,056)
<b>Total Intersystem Sales</b>	<b>\$ 93,839,751</b>	<b>\$ 4,067,869</b>	<b>1,945,444</b>	<b>\$ 86,336,253</b>	<b>\$ 3,435,629</b>

\* Sales for resale other than native load priority.

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

A - Twelve months ended December 2018 includes a correction to reclassify market sales for the month of October 2018 as an emergency sale. The October 2018 sales were as follows: Total dollars = \$24,456, Non capacity MWH = 408, Non-capacity fuel dollars = \$20,096, and Non-capacity non-fuel dollars = \$3,550.

B - Twelve months ended December 2018 includes a correction to include market capacity sales for the period January 2018 - October 2018. Market capacity sales each month were as follows: Total dollars = \$279,380, and capacity dollars = \$279,380. Total market capacity sales dollars for the period January 2018 - October 2018 = \$2,793,800.

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Jun 27 2019

**Duke Energy Carolinas**  
**(Over) / Under Recovery of Fuel Costs**  
**December 2018**

Line No.		Residential	Commercial	Industrial	Total
1	Actual System kWh sales				7,490,426,895
2	DERP Net Metered kWh generation				10,412,429
3	Adjusted System kWh sales				7,500,839,324
4	N.C. Retail kWh sales	2,038,461,729	1,880,040,961	974,229,470	4,892,732,160
5	NC kWh sales % of actual system kWh sales				65.32%
6	NC kWh sales % of adjusted system kWh sales				65.23%
7	Approved fuel and fuel-related rates (\$/kWh)				
7a	Billed rates by class (\$/kWh)	1.7003	1.8314	1.8020	1.7709
7b	Billed fuel expense	\$34,659,965	\$34,431,070	\$17,555,615	\$86,646,650
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (\$/kWh)				
8a	Docket E-7, Sub 1163 allocation factor	35.64%	41.77%	22.59%	
8b	System incurred expense				\$166,830,104
8c	Incurred base fuel and fuel-related expense	\$38,786,219	\$45,458,159	\$24,577,446	\$108,821,824
8d	Incurred base fuel rates by class (\$/kWh)	1.9027	2.4179	2.5228	2.2242
9	Incurred renewable purchased power capacity rates by class (\$/kWh)				
9a	NC retail production plant %				67.56%
9b	Production plant allocation factors	43.68%	37.64%	18.68%	100.00%
9c	System incurred expense				\$965,788
9d	Incurred renewable capacity expense	\$285,027	\$245,590	\$121,872	\$652,488
9e	Incurred renewable capacity rates by class (\$/kWh)	0.0140	0.0131	0.0125	0.0133
10	Total incurred rates by class (\$/kWh)	1.9167	2.4310	2.5353	2.2375
11	Difference in \$/kWh (incurred - billed)	0.2164	0.5996	0.7333	0.4666
12	(Over) / under recovery [See footnote]	\$4,411,281	\$11,272,678	\$7,143,703	\$22,827,662
13	Prior period adjustments				
14	Total (over) / under recovery [See footnote]	\$4,411,281	\$11,272,678	\$7,143,703	\$22,827,662
15	Total system incurred expense				\$167,795,892
16	Less: Jurisdictional allocation adjustment(s)				338,332
17	Total Fuel and Fuel-related Costs per Schedule 2				\$167,457,560

18 (Over) / under recovery for each month of the current calendar year [See footnote]

	Year 2018	(Over) / Under Recovery				
		Total To Date	Residential	Commercial	Industrial	Total Company
	January	\$70,210,459	\$12,463,615	\$33,104,497	\$24,642,348	\$70,210,459
	February	48,920,711	(\$11,989,284)	(\$6,434,005)	(\$2,866,460)	(21,289,748)
_/1	March	53,688,504	\$1,587,096	\$1,503,768	\$1,676,929	4,767,793
_/1	April	39,952,067	(\$3,469,659)	(\$6,335,002)	(\$3,931,775)	(13,736,437)
	May	46,088,897	\$5,910,833	(\$210,465)	\$436,461	6,136,830
	June	52,711,139	\$2,162,126	\$1,145,088	\$3,315,028	6,622,242
_/2	July	67,208,623	\$2,375,059	\$5,295,453	\$6,826,972	14,497,484
	August	80,715,732	\$3,875,805	\$4,054,944	\$5,576,360	13,507,109
_/2	September	75,122,857	(\$6,784)	(\$5,202,149)	(\$383,942)	(5,592,875)
_/2	October	91,539,889	\$5,784,976	\$5,860,345	\$4,771,711	16,417,032
	November	\$109,017,571	\$9,241,689	\$5,957,400	\$2,278,593	\$17,477,682
	December	\$131,845,232	\$4,411,281	\$11,272,678	\$7,143,703	\$22,827,661
			\$32,346,753	\$50,012,552	\$49,485,928	\$131,845,232

Notes:

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

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

Under collections, or regulatory assets, are shown as positive amounts.

\_/1 Includes prior period adjustments.

\_/2 Reflects a prorated rate and prorated allocation factor for periods in which the approved rates changed.

DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Cost of Fuel Purchased (\$)</b>																
Coal	\$49,933	\$17,907,637			\$8,548,228					\$22,079,739					\$48,685,637	\$557,488,215
Oil - CC	143,133	1,082,966			273,156										1,493,256	46,634,501
Gas - CC			\$13,103,055				\$6,858,257								32,884,994	384,692,206
Gas - CT						\$12,923,682		104,195	\$110,569					\$1,899,682	2,272,971	98,161,049
Gas - Steam					5,695,205			909							5,696,114	8,633,545
Biogas						361,043									361,043	3,466,205
<b>Total</b>	<b>\$193,066</b>	<b>\$19,990,604</b>	<b>\$13,103,055</b>		<b>\$14,516,590</b>	<b>\$13,284,725</b>	<b>\$6,858,257</b>	<b>\$105,103</b>	<b>\$110,569</b>	<b>\$22,079,739</b>		<b>\$158,525</b>		<b>\$1,899,682</b>	<b>\$91,269,914</b>	<b>\$1,201,085,721</b>
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>																
Coal																
Oil	1,321.84	555.02			687.75					399.01					485.71	324.71
Gas - CC		172.99			692.52		455.27								221.68	1,358.88
Gas - CT			442.19			442.08									442.14	392.80
Gas - Steam					445.73			532.70	457.48			510.56		457.22	343.97	343.97
Biogas						1,577.30				399.01					1,577.30	410.58
<b>Weighted Average</b>	<b>1,782.98</b>	<b>492.94</b>	<b>442.19</b>		<b>567.03</b>	<b>450.30</b>	<b>455.27</b>	<b>532.60</b>	<b>467.48</b>	<b>399.01</b>		<b>510.56</b>		<b>457.22</b>	<b>450.65</b>	<b>358.66</b>
<b>Cost of Fuel Burned (\$)</b>																
Coal	\$741,089	\$19,525,109			\$12,888,384					\$13,692,987					\$46,847,569	\$675,888,074
Oil - Steam/CT	163,523	1,219,227			286,271			25,472	\$25,788	149,226					1,874,266	41,704,735
Gas - CC			\$13,103,055				\$6,858,257								32,884,994	384,692,206
Gas - CT						\$12,923,682		\$104,195	110,569					\$1,899,682	2,272,971	98,161,049
Gas - Steam					5,695,205			909							5,696,114	8,633,545
Biogas						361,043									361,043	3,466,205
Nuclear				\$8,356,486							\$10,990,838		\$10,470,715		29,818,039	370,939,248
<b>Total</b>	<b>\$904,613</b>	<b>\$20,744,336</b>	<b>\$13,103,055</b>	<b>\$8,356,486</b>	<b>\$18,869,860</b>	<b>\$13,284,725</b>	<b>\$6,858,257</b>	<b>\$130,575</b>	<b>\$135,358</b>	<b>\$13,841,212</b>	<b>\$10,990,838</b>	<b>\$158,525</b>	<b>\$10,470,715</b>	<b>\$1,899,682</b>	<b>\$119,754,955</b>	<b>\$1,583,385,062</b>
<b>Average Cost of Fuel Burned (¢/MBTU)</b>																
Coal																
Oil - CC	359.55	352.99			354.20					341.94					350.11	315.40
Oil - Steam/CT	1,564.97	1,487.41			1,505.97			12,245.96	1,521.44	1,620.84					1,530.31	1,604.54
Gas - CC			442.19				455.27								442.14	392.80
Gas - CT					445.73			532.70	457.48			510.56		457.22	464.11	343.97
Gas - Steam						1,577.30									1,577.30	410.58
Biogas				58.63							62.46		58.28		59.86	1,603.31
Nuclear		369.55	442.19	58.63	382.33	450.30	455.27	654.77	537.56	344.86	62.46	510.56	58.28	457.22	165.17	165.78
<b>Weighted Average</b>	<b>417.71</b>	<b>369.55</b>	<b>442.19</b>	<b>58.63</b>	<b>382.33</b>	<b>450.30</b>	<b>455.27</b>	<b>654.77</b>	<b>537.56</b>	<b>344.86</b>	<b>62.46</b>	<b>510.56</b>	<b>58.28</b>	<b>457.22</b>	<b>165.17</b>	<b>165.78</b>
<b>Average Cost of Generation (¢/kWh)</b>																
Coal	2.92	3.41			3.52					3.41					3.43	2.98
Oil - CC																
Oil - Steam/CT	12.43	15.65			14.52			128.73	63.22	16.41					15.56	17.94
Gas - CC			3.05				3.19								3.10	2.81
Gas - CT						3.11		5.57	10.88			8.08		5.09	5.39	3.85
Gas - Steam					4.45										4.47	4.60
Biogas				0.59		11.08							0.59		11.08	11.48
Nuclear		3.57	3.06	0.59	3.80	3.17	3.19	9.16	12.90	3.44	0.62	8.08	0.59	5.09	0.60	0.82
<b>Weighted Average</b>	<b>3.39</b>	<b>3.57</b>	<b>3.06</b>	<b>0.59</b>	<b>3.80</b>	<b>3.17</b>	<b>3.19</b>	<b>9.16</b>	<b>12.90</b>	<b>3.44</b>	<b>0.62</b>	<b>8.08</b>	<b>0.59</b>	<b>5.09</b>	<b>0.60</b>	<b>1.36</b>
<b>Burned MBTU's</b>																
Coal	206,117	5,531,427			3,638,779					4,004,460					13,380,763	214,294,473
Oil - Steam/CT	10,449	81,970			19,009			208	1,695	9,145					122,476	2,595,178
Gas - CC			2,963,222				1,506,423								7,393,012	97,936,802
Gas - CT						2,923,367		19,560	23,652			31,049		415,485	489,746	28,537,792
Gas - Steam					1,277,737										1,277,911	2,102,783
Biogas						22,890									22,890	216,190
Nuclear		5,613,397	2,963,222	14,252,377	4,935,525	2,946,257	1,506,423	13,942	25,347	4,013,605	17,596,869	31,049	17,965,954	415,485	49,815,240	603,676,564
<b>Total</b>	<b>216,566</b>	<b>5,613,397</b>	<b>2,963,222</b>	<b>14,252,377</b>	<b>4,935,525</b>	<b>2,946,257</b>	<b>1,506,423</b>	<b>13,942</b>	<b>25,347</b>	<b>4,013,605</b>	<b>17,596,869</b>	<b>31,049</b>	<b>17,965,954</b>	<b>415,485</b>	<b>72,502,058</b>	<b>949,363,782</b>



DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED COST REPORT  
DECEMBER 2018

Description	Allen Steam	Belews Creek Steam	Buck CC	Catawba Nuclear	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	McGuire Nuclear	Mill Creek CT	Oconee Nuclear	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Net Generation (mWh)</b>																
Coal	25,397	573,052			366,421					401,855					1,366,724	22,653,740
Oil - CC																
Oil - Steam/CT	1,315	7,791			1,972	-	-	20	41	903					12,042	232,515
Gas - CC			428,198			416,157	214,977								1,059,332	13,695,555
Gas - CT								1,871	1,016			1,951		37,330	42,178	2,550,671
Gas - Steam								(456)							127,536	187,574
Biogas						3,259									3,259	30,204
Nuclear 100%				1,420,722							1,778,199		1,782,248		4,981,169	59,936,028
Hydro (Total System)															323,664	2,347,824
Solar (Total System)															5,768	130,018
<b>Total</b>	<b>26,712</b>	<b>580,843</b>	<b>428,198</b>	<b>1,420,722</b>	<b>496,394</b>	<b>419,416</b>	<b>214,977</b>	<b>1,425</b>	<b>1,057</b>	<b>402,758</b>	<b>1,778,199</b>	<b>1,961</b>	<b>1,782,248</b>	<b>37,330</b>	<b>7,921,672</b>	<b>101,764,129</b>
<b>Cost of Reagents Consumed (\$)</b>																
Ammonia		(\$46,049)	\$14,280		\$11,119	\$8,043	\$11,630								(\$977)	\$4,077,078
Limestone	\$24,711	467,587			478,632					\$374,113					1,345,043	19,594,631
Sorbents	-	53,543								73,539					127,081	2,353,883
Urea	-									45,004					45,004	928,117
Re-emission Chemical	-	-													-	69,161
Dibasic Acid	-														-	-
Activated Carbon	34,464														34,464	170,782
<b>Total</b>	<b>\$59,175</b>	<b>\$475,081</b>	<b>\$14,280</b>		<b>489,751</b>	<b>\$8,043</b>	<b>\$11,630</b>			<b>\$492,656</b>					<b>\$1,550,615</b>	<b>\$27,193,652</b>

**Notes:**

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

Data is reflected at 100% ownership.

Schedule excludes in-transit and terminal activity.

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

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

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DUKE ENERGY CAROLINAS  
FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT  
DECEMBER 2018

Description	Allen Steam	Belaws Creek Steam	Buck CC	Cliffside Steam - Dual Fuel	Dan River CC	Lee CC	Lee Steam/CT	Lincoln CT	Marshall Steam	Mill Creek CT	Rockingham CT	Current Month	Total 12 ME December 2018
<b>Coal Data:</b>													
Beginning balance	196,674	741,379		565,251			-		448,731			1,952,035	2,321,844
Tons received during period	-	221,261		95,812					262,988			580,061	8,353,369
Inventory adjustments	(16,000)	(91,871)		(46,501)			-		(41,785)			(196,158)	(171,512)
Tons burned during period	8,841	221,660		146,683			-		158,816			536,000	8,703,762
Ending balance	171,833	649,109		467,879			-		511,118			1,799,939	1,799,939
MBTUs per ton burned	23.31	24.95		24.81			-		25.21			24.96	24.62
Cost of ending inventory (\$/ton)	83.82	88.09		87.87			-		85.22			87.09	87.09
<b>Oil Data:</b>													
Beginning balance	90,694	221,182	-	236,089	-	-	714,747	9,834,797	312,274	4,366,782	3,238,190	19,014,755	16,962,536
Gallons received during period	75,652	578,080	-	144,399	-	-	-	-	-	-	-	798,131	21,144,157
Miscellaneous adjustments	448	(35,415)	-	(11,633)	-	-	(9,425)	-	-	-	-	(57,379)	(352,297)
Gallons burned during period	75,879	596,667		137,943	-	-	1,520	12,305	66,449	-	-	889,408	18,888,297
Ending balance	90,915	167,180	-	230,912	-	-	703,802	9,822,492	245,825	4,366,782	3,238,190	18,866,098	18,866,098
Cost of ending inventory (\$/gal)	2.16	1.99	-	2.08	-	-	2.33	2.10	2.23	2.47	2.17	2.20	2.20
<b>Natural Gas Data:</b>													
Beginning balance													
MCF received during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,467	400,698	8,889,956	125,135,402
MCF burned during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,467	400,698	8,889,956	125,135,402
Ending balance													
<b>Biogas Data:</b>													
Beginning balance													
MCF received during period			-		22,062	-						22,062	210,727
MCF burned during period			-		22,062	-						22,062	210,727
Ending balance													
<b>Limestone Data:</b>													
Beginning balance	23,869	38,673		34,190					37,083			133,815	169,322
Tons received during period	-	6,707		7,615					12,836			27,159	444,242
Inventory adjustments	(2,996)	(4,910)		-					(7,085)			(14,991)	(14,991)
Tons consumed during period	527	11,600		9,514					9,187			30,828	483,419
Ending balance	20,346	28,870		32,292					33,647			115,155	115,155
Cost of ending inventory (\$/ton)	46.89	39.54		39.44					40.72			41.16	41.16
<b>Ammonia Data:</b>													
Beginning balance		1,315										1,315	1,159
Tons received during period		901										901	4,715
Tons consumed during period		583										583	4,241
Ending balance		1,633										1,633	1,633
Cost of ending inventory (\$/ton)		620.44										620.44	620.44
												Qtr Ending December 2018	Total 12 ME December 2018

**Notes:**

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

Schedule excludes in-transit and terminal activity.

Gas is burned as received; therefore, inventory balances are not maintained.

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Schedule 6

**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL PURCHASED  
DECEMBER 2018**

<b>STATION</b>	<b>TYPE</b>	<b>QUANTITY OF TONS DELIVERED</b>	<b>DELIVERED COST</b>	<b>DELIVERED COST PER TON</b>
<b>ALLEN</b>	SPOT	-	\$ -	\$ -
	CONTRACT	-	-	-
	ADJUSTMENTS	-	49,933	-
	TOTAL	-	49,933	-
<b>BELEWS CREEK</b>	SPOT	-	11,982	-
	CONTRACT	221,261	17,706,037	80.02
	ADJUSTMENTS	-	189,618	-
	TOTAL	221,261	17,907,637	80.93
<b>CLIFFSIDE</b>	SPOT	-	-	-
	CONTRACT	95,812	7,221,379	75.37
	ADJUSTMENTS	-	1,326,849	-
	TOTAL	95,812	8,548,228	89.22
<b>MARSHALL</b>	SPOT	96,525	8,181,703	84.76
	CONTRACT	166,463	13,355,663	80.23
	ADJUSTMENTS	-	542,373	-
	TOTAL	262,988	22,079,739	83.96
<b>ALL PLANTS</b>	SPOT	96,525	8,193,685	84.89
	CONTRACT	483,536	38,283,079	79.17
	ADJUSTMENTS	-	2,108,773	-
	TOTAL	580,061	\$ 48,585,537	\$ 83.76

**DUKE ENERGY CAROLINAS**  
**ANALYSIS OF COAL QUALITY RECEIVED**  
**DECEMBER 2018**

<b>STATION</b>	<b>PERCENT MOISTURE</b>	<b>PERCENT ASH</b>	<b>HEAT VALUE</b>	<b>PERCENT SULFUR</b>
<b>BELEWS CREEK</b>	6.91	10.15	12,468	1.58
<b>CLIFFSIDE</b>	8.48	7.60	12,603	2.35
<b>MARSHALL</b>	6.73	10.02	12,508	1.73

**DUKE ENERGY CAROLINAS  
ANALYSIS OF OIL PURCHASED  
DECEMBER 2018**

	<b>ALLEN</b>	<b>BELEWS CREEK</b>	<b>CLIFFSIDE</b>
<b>VENDOR</b>	HighTowers	HighTowers	HighTowers
<b>SPOT/CONTRACT</b>	Contract	Contract	Contract
<b>SULFUR CONTENT %</b>	0	0	0
<b>GALLONS RECEIVED</b>	75,652	578,080	144,399
<b>TOTAL DELIVERED COST</b>	\$ 143,133	\$ 1,082,966	\$ 273,156
<b>DELIVERED COST/GALLON</b>	\$ 1.89	\$ 1.87	\$ 1.89
<b>BTU/GALLON</b>	138,000	138,000	138,000

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**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
January, 2018 - December, 2018  
Nuclear Units

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Oconee 1	6,745,635	847	90.91	89.94
Oconee 2	7,581,168	848	102.06	100.00
Oconee 3	6,967,442	859	92.59	92.12
McGuire 1	10,359,250	1,158	102.12	99.56
McGuire 2	9,502,818	1,158	93.68	91.80
Catawba 1	9,510,487	1,160	93.59	92.99
Catawba 2	9,269,228	1,150	92.01	91.84

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**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Combined Cycle Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
Buck CC	11	1,463,456	206	81.10	88.68
Buck CC	12	1,471,968	206	81.57	89.09
Buck CC	ST10	2,237,637	312	81.87	96.78
Buck CC	Block Total	5,173,061	724	81.57	92.29
Dan River CC	8	1,433,925	199	82.26	86.38
Dan River CC	9	1,410,200	199	80.90	85.84
Dan River CC	ST7	2,118,133	320	75.56	91.38
Dan River CC	Block Total	4,962,258	718	78.90	88.46
WS Lee CC	11	1,030,538	223	70.01	75.09
WS Lee CC	12	1,090,492	223	74.08	77.05
WS Lee CC	ST10	1,402,639	337	63.05	76.36
WS Lee CC	Block Total	3,523,669	783	68.17	76.19

**Notes:**

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

**Duke Energy Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018**

**Baseload Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Belews Creek 1	4,793,474	1,110	49.30	88.06
Belews Creek 2	3,227,943	1,110	33.20	69.66
Marshall 3	3,176,205	658	55.10	89.31
Marshall 4	3,675,692	660	63.58	88.48

**Notes:**

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



**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**

**Intermediate Steam Units**

<b>Unit Name</b>	<b>Net Generation (mWh)</b>	<b>Capacity Rating (mW)</b>	<b>Capacity Factor (%)</b>	<b>Equivalent Availability (%)</b>
Cliffside 6	4,311,369	844	58.31	75.32
Marshall 1	958,416	380	28.79	88.74
Marshall 2	675,957	380	20.31	68.31

**Notes:**

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

**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January, 2018 through December, 2018**  
**Other Cycling Steam Units**

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Operating Availability (%)
Allen	1	71,408	167	4.88	83.17
Allen	2	86,505	167	5.91	84.03
Allen	3	158,113	270	6.68	80.91
Allen	4	178,336	267	7.62	89.89
Allen	5	325,399	259	14.34	85.49
Cliffside	5	1,243,104	546	25.99	61.63
Lee	3	54,152	173	3.57	36.34

Notes:

- 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 Carolinas  
Power Plant Performance Data  
Twelve Month Summary  
January, 2018 through December, 2018  
Combustion Turbine Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
Lee CT	79,514	96	84.70
Lincoln CT	82,484	1,565	93.72
Mill Creek CT	201,194	735	99.23
Rockingham CT	2,325,235	895	90.19

**Notes:**

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

**Duke Energy Carolinas  
Power Plant Performance Data**

Revised McGee Exhibit 6

Schedule 10

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**Twelve Month Summary**

**January, 2018 through December, 2018**

**Hydroelectric Stations**

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%)
<b>Conventional Hydroelectric Stations:</b>			
Bear Creek	37,232	9.5	86.90
Bridgewater	117,680	31.5	95.52
Bryson	4,632	0.9	85.69
Cedar Cliff	27,610	6.8	92.39
Cedar Creek	178,151	45.0	81.91
Cowans Ford	312,212	324.0	58.69
Dearborn	222,145	42.0	97.55
Fishing Creek	203,570	50.0	88.41
Franklin	3,726	1.0	58.90
Gaston Shoals	14,686	4.5	96.65
Great Falls	-92	12.0	100.00
Keowee	98,064	152.0	99.21
Lookout Shoals	162,927	27.0	99.26
Mission	5,388	1.8	51.83
Mountain Island	207,502	62.0	90.56
Nantahala	270,145	50.0	99.03
Ninety-Nine Islands	83,267	15.2	91.67
Oxford	107,478	40.0	38.56
Queens Creek	4,621	1.4	99.89
Rhodhiss	119,297	33.5	94.18
Rocky Creek	-73	3.0	0.00
Tennessee Creek	48,111	9.8	93.76
Thorpe	96,019	19.7	93.15
Tuckasegee	7,077	2.5	85.11
Tuxedo	33,861	6.4	96.21
Wateree	336,004	85.0	81.96
Wylie	175,810	72.0	55.96
<b>Pumped Storage Hydroelectric Stations:</b>			
<b>Gross Generation</b>			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
<b>Energy for Pumping</b>			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
<b>Net Generation</b>			
Bad Creek	-391,555		
Jocassee	-137,671		

**Notes:**

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

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**JUN 27 2019**

**Duke Energy Carolinas**  
**Power Plant Performance Data**  
**Twelve Month Summary**  
**January 2018 through December 2018**  
**Pre-commercial Combined Cycle Units**

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

Unit Name		Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
January 2018					
Lee	11	-10	n/a	n/a	n/a
Lee	12	-11	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-21	n/a	n/a	n/a
February 2018					
Lee	11	-1,575	n/a	n/a	n/a
Lee	12	-1,120	n/a	n/a	n/a
Lee	ST10	0	n/a	n/a	n/a
Lee	Block Total	-2,695	n/a	n/a	n/a
March 2018					
Lee	11	25,973	n/a	n/a	n/a
Lee	12	14,939	n/a	n/a	n/a
Lee	ST10	-1,349	n/a	n/a	n/a
Lee	Block Total	39,563	n/a	n/a	n/a
April 1 - 4					
Lee	11	14,158	n/a	n/a	n/a
Lee	12	6,771	n/a	n/a	n/a
Lee	ST10	8,994	n/a	n/a	n/a
Lee	Block Total	29,923	n/a	n/a	n/a
Total		66,771			

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

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Jun 27 2019