-	
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	
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13	IN THE MATTER OF:
14	Application of Duke Energy Carolinas, LLC
14	Application of Duke Energy Carolinas, LLC
14 15	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55
14 15 16	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17 18	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17 18 19	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17 18 19 20	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17 18 19 20 21	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments
14 15 16 17 18 19 20 21 21 22	Application of Duke Energy Carolinas, LLC Pursuant to N.C.G.S. § 62-133.2 and NCUC Rule R8-55 Relating to Fuel and Fuel-Related Charge Adjustments

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1	APPEARANCES Cont'd.:
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11	Regulatory Counsel
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15	FOR THE USING AND CONSUMING PUBLIC:
16	Dianna Downey, Esq.
17	North Carolina Utilíties Commission
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19	Raleigh, North Carolina 27699-4300
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TABLE OF CONTENTS KIMBERLY D. MCGEE Prefiled Direct Testimony..... Prefiled Supplemental Testimony..... Prefiled Second Supplemental Testimony..... ERIC S. GRANT Prefiled Direct Testimony..... REGIS T. REPKO Prefiled Direct Testimony..... KEVIN Y. HOUSTON-Prefiled Direct Testimony..... STEPHEN D. CAPPS Prefiled Direct Testimony..... JAY B. LUCAS Prefiled Affidavit..... JENNY X. LI Prefiled Affidavit.....

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1	EXHIBITS
. 2	Identified / Admitted
3	Application of
4	Duke Energy Carolinas, LLC
5	McGee Exhibits 1 - 6 and McGee
6	Workpapers 1 - 14 12/12
7	Grant Exhibits 1 and 2 and Confidential
8	Grant Exhibit 3 30/30
9	Confidential Capps Exhibit 1 61/61
10	Revised Supplemental McGee Exhibit 1,
11	Supplemental McGee Exhibit 2, Revised
12	Supplemental McGee Exhibits 3 and 4,
13	Supplemental McGee Exhibit 5 and Revised
14	Supplemental McGee Exhibit 6 76/76
15	Revised Second Supplemental McGee Exhibit 1,
16	Second Supplemental McGee Exhibit 2, Revised
17	Second Supplemental McGee Exhibit 3, Second
18	Supplemental McGee Exhibits 4 and 5, and
19	Revised Second Supplemental McGee
20	Exhibit 6 83/83
21	Confidential Sierra Club Exhibit 1/89
22	
23	
24	

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

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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

DUKE ENERGY CAROLINAS, LLC'S APPLICATION

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 Duke Energy Corporation P.O. Box 1551/NCRH 20 Raleigh, North Carolina 27602 (919) 546-3257 Jack.jirak@duke-energy.com

Robert W. Kaylor Law Office of Robert W. Kaylor, P.A. 353 Six Forks Road, Suite 260 Raleigh, North Carolina 27609 (919) 828-5250

Jun 27 2019

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:

	NERC Average	Last General Rate Case
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 26th day of February, 2019.

Lal By:

Jack E. Jirak Associate General Counsel Duke Energy Corporation P.O. Box 1551/NCRH 20 Raleigh, North Carolina 27602 (919) 546-3257 Jack.jirak@duke-energy.com

Robert W. Kaylor Law Office of Robert W. Kaylor, P.A. 353 Six Forks Road, Suite 260 Raleigh, North Carolina 27609 Tel: (919) 828-5250 <u>bkaylor@rwkaylorlaw.com</u> North Carolina State Bar No. 6237

ATTORNEYS FOR DUKE ENERGY CAROLINAS, LLC

Jun 27 2019

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.

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Kimberly McGee

Sworn to and subscribed before me this the $\frac{2n^4}{n}$ day of February, 2019.

Notary Public

My Commission expires:

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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

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
	Description	nergrenec	Centry Nettin	CETTAJ KUT	Centay Kinn	Centoy Need
	Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)					
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
	Fuel and Fuel Related Cost Factors Required by Rule R8-55					
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
	Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%					
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

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Note: Fuel factors exclude regulatory fee

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McGee Exhibit 1

DUKE ENERGY CAROLINAS

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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

Line #	Unit	Reference	(MWh)	(cents/kWh)	(\$)
			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		-
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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

Unit Cost

Generation



Fuel Cost

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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

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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>Calcula</u>	tion of Renewable and Cogeneration Purchased Power Capacity Rate by Class					<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 - Jursidicational % 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
Summa	ry of Total Rate by Class					
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	<u>0.0327</u>
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

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Note: Rounding differences may occur

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McGee Exhibit 2 Schedule 1 Page 2 of 3

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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

Line#	Rate Class	Projected Billing Period MWh Sales		Revenue at ent 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 Capacit and EMF)
		A		в	С	D	E	F	G
							If D=0 then 0 if not then		
		Workpaper 7	Wor	kpaper 8	Line 25 as a % of Column B	C/B	(C*100)/(A*1000)	McGee Exhibit 1	E + F ≂ G
1	Residential	21,397,068	\$ 2,1	83,285,633	\$ 22,857,098	1.05%	0.1058	1.7983	1.905
2 (General Service/Lighting	23,381,644	1,7	38,716,194	18,202,843	1.05%	0.0779	1.9382	2.016:
3	Industrial	12,939,285	6	87,001,167	7,192,304	1.05%	0.0556	2.0233	2.078
4 1	NC Retail	57,717,997	\$ 4,6	09,002,994	\$ 48,252,245	1.05%			

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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		65.16%
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

McGee Exhibit 2 Schedule 1 Page 3 of 3

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

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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		
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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

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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

Line #	Description	Description Reference Residential GS/Lighting Industr		Industrial	Total	
1	NC Normalized Test Period MWh Sales	Exhibit 4	22,043,791	23,487,580	12,454,944	57,986,315
<u>Calculat</u>	tion of Renewable Purchased Power Capacity Rate by Class					Amount
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 - Jursidicational % 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
Summa	ry of Total Rate by Class					
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
1 1	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

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Note: Rounding differences may occur

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McGee Exhibit 2 Schedule 2 Page 2 of 3

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McGee Exhibit 2 Schedule 2

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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

_Line #	Rate Class	Normalized Test Period MWh Sales	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) <u>E</u> -7, Sub 1163	Proposed Total Fuel Rate (including Capacity and EMF)
		Α	B	с	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	\$ 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				
	Total Proposed Composite Fuel Rate:							
5	Total Fuel Costs for Allocation	Workpaper 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	Workpaper 7a	88,648,222					
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	57,986,315					
10	Allocation %	Line 9 / Line 8	65.419	5				
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					
	<u>Total Current Composite Fuel Rate – Docket E-7 Sub 1163;</u>							
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					

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Line 23 * Line 24 * 10 \$ 57,174,506

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25 Increase/(Decrease) in Fuel Costs

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

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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		
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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	sidential 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
<u>Calcula</u>	tion of Renewable Purchased Power Capacity Rate by Class					<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 5	Total of Renewable and QF Purchased Power Capacity NC Portion - Jursidicational % based on Production Plant Allocator	Line 2 + Line 3 Input				\$ 28,169,738 67.04%
6 7	NC Renewable and QF Purchased Power - Capacity Production Plant Allocation Factors	Line 4 * Line 5 Input	54.68%	31.06%	14.26%	\$ 18,884,001 100.00%
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
Summa	ry of Total Rate by Class					
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	-	-	-	<u> </u>
15	Net Fuel and Fuel Related Costs Factors cents/kWh	Exh 2 Sch 3 Page 3	. 1.9519	2.0501	2.1032	2.0261

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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

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McGee Exhibit 2 Schedule 3 Page 3 of 3

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_Line#	Rate Class	Projected Billing Period MWh Sales		Current rates	to Customer Class	% of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	EMF) E-7, Sub 1163	Proposed Total Fuel Rate (including Capacity and EMF)
		A		В	с	C/B=D	E ISD Balans Bit and bar	F	G
		Workpaper 76		Workpaper 8	Line 25 as a % of Column 8	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	Ś	2,183,285,633	\$ 32,863,914	1.51%	0.1536	1.7983	1.9519
2	General Service/Lighting	23,381,544		1,738,716,194			0.1119	1.9382	2.0501
3	Industrial	12,939,285	\$	687,001,167			0.0799	2.0233	2.1032
4	NC Retail	57,717,997	\$	4,609,002,994	\$ 69,377,032	-			
	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 Retall 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					
	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		0.1202					
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					

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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

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_		Fuel Cost Incurred ¢/kWh	Fuel Cost Billed ¢/kWh	MW	Retail 1 Sales	(0	Reported Over)/ Under Recovery
Line	Ba 41	(a)	(b)	(c)		(d)
<u>No.</u>	Month January 2018			,	5,733,820	Ŝ	70,210,460
2	February			1	5,735,820	s S	(21,289,748)
2	March(1)				• •		• • • •
	••			1	4,190,094	ş Ş	4,767,793
4	April(1)	1		, ,			(13,763,436)
5 6	May	1				\$	6,136,829
7	June(1)			,	5,245,689		6,622,242
	July(1)				5,639,361		14,497,484
8	August			i I	5,409,821	\$	13,507,110
9	September October	i I		1	6,212,764		(8,995,949)
10					4,141,212		11,156,943
11	November	i.		i e	• •	\$	11,789,339
12	December	·		· · · · ·	4,892,732		16,666,116
13	Total Test Period				59,480,703	\$	111,305,183
14	Adjustment to remove (Over) / Under I	Recovery - Januar	ry - March 2018 ⁽²⁾			\$	53,688,503
15	Include Under Recovery related to Coal	Inventory Rider				\$	37,667
16	Adjusted (Over)/ Under Recovery					\$	57,654,346
17	NC Retail Normalized Test Period MWh	Sales		Exhibit 4			57,986,315
18	Experience Modification Increment (De	crement) cents/k	Wh				0.0994

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

⁽²⁾ 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

McGee Exhibit 3 Page 1 of 4

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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

Month

McGee Exhibit 3	
Page 2 of 4	

		Reported
NC Retail	(C	over)/ Under
MWH Sales		Recovery
(c)		(d)
2,747,953	\$	12,463,615
2,101,525	\$	(11,989,284)
1,546,024	\$	1,587,096
1,557,073	\$	(3,496,659)
1,361,386	\$	5,910,833
1,940,879	\$	2,162,126
2,227,922	\$	2,375,059
2,050,040	\$	3,875,805
2,200,376	\$	(925,298)
1,554,551	\$	4,264,193
1,436,836	\$	7,833,590
2,038,462	\$	2,413,589

				• •	•	
4	April ⁽¹⁾	1.5682	1.7919	1,557,073	\$	(3,496,659)
5	May	2.2261	1.7919	1,361,386	\$	5,910,833
6	June ⁽¹⁾	1.9042	1.7919	1,940,879	\$	2,162,126
7	July ⁽¹⁾	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	Total Test Period		_	22,763,029	\$	26,474,665
14	Test Period Wtd Avg. ¢/kWh	1.9096	1.7928			
15	Adjustment to remove (Over) / Under F	Recovery - Janua	ry - March 201	8 ⁽²⁾	\$	2,061,427
16	Include Under Recovery related to Coal	Inventory Rider	•		\$	14,415
17	\$	24,427,653				
18	18 NC Retail Normalized Test Period MWh Sales Exhibit 4					
19	19 Experience Modification Increment (Decrement) cents/kWh					

Fuel Cost

Incurred

¢/kWh

(a)

2.2454

1.2214

1.8936

Fuel Cost

Billed

¢/kWh

(b)

1.7919

1.7919

1.7919

Notes:

Line

#

1

2

3

January 2018 February

March⁽¹⁾

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

⁽²⁾ 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

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(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	ŝ	(6,434,005)
3	March ⁽¹⁾	2.0122	1.9253	1,709,988	ŝ	1,503,768
4	April ⁽¹⁾	1.5762	1.9253	1,819,014	ŝ	(6,335,002)
					Ś	
5	May June ⁽¹⁾	1.9140	1.9253	1,860,965		(210,465)
6	July ⁽¹⁾	1.9786	1.9253	2,190,371	\$ \$	1,145,088
7 8	-	2.1543 2.1026	1.9253 1.9219	2,291,796	ş Ş	5,295,453
	August			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	Total Test Period			24,162,007	\$	43,004,122
14	Test Period Wtd Avg. ¢/kWh	2.1057	1.9279			
15	Adjustment remove (Over) / Under Recovery - J	anuary - March	2018 ⁽²⁾		\$	28,174,260
16	Include Under Recovery related to Coal Inventor	ry Rider			\$	15,301
17	Adjusted (Over)/ Under Recovery				\$	14,845,163
18	NC Retail Normalized Test Period MWh Sales		;	Exhibit 4		23,487,580
19	Experience Modification Increment (Decrement) cents/kWh				0.0632

Notes:

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

⁽²⁾ 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

McGee Exhibit 3 Page 3 of 4

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

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Jun 27 2019

Line #		Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(0	Reported Dver)/ Under Recovery (d)
	Month January 2018	4.6719	2.0297	932,643	Ś	24,642,348
2	February 2018	4.6719	2.0297	· 1,030,502	ş Ş	
2	March ⁽¹⁾	2.2081	2.0297	934,082	ş	(2,866,460) 1,676,929
-	April ⁽¹⁾			-	•	
4		1.6509	2.0297	1,040,479	\$	(3,931,775)
5	May	2.0721	2.0297	1,030,399	\$	436,461
6	June ⁽¹⁾	2.3283	2.0297	1,114,438	\$	3,315,028
7	ylut (1)	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 Re	covery - January -	March 2018 ⁽²⁾		\$	23,452,816
16	include Under Recovery related to Coal In	oventory Rider			\$	7,951
17	Adjusted (Over)/ Under Recovery				\$	18,381,529
18	NC Retail Normalized Test Period MWh S	ales	E	chibit 4		12,454,944
19	Experience Modification Increment (Decr	ement) cents/KW	/h			0.1476

Notes:

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

⁽²⁾ 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

McGee Exhibit 4

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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

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Line #	Description	Reference	 Total Company	North Carolina	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
		Exhibit 6 Schedule 1 (Line 4)					
1	Test Period MWh Sales (excluding inter system sales)	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	5 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			

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		Winter Colncidental
		Peak (CP) kW
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

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٠ 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.

McGee Exhibit 5

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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	Rate Case		
	Docket E-7,	Fuel Docket E-7,	Proposed Capacity
Unit	Sub 1146	Sub 1163	Rating MW
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

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DECEMBER 2018 MONTHLY FUEL FILING

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DUKE ENERGY CAROLINAS SUMMARY OF MONTHLY FUEL REPORT

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Docket No. E-7, Sub 1161

Line <u>No.</u>		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	48,664,815	691,762,314
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 - Combined Oycle	57,020	25,830,495
Total Other Generation - Account 547	39,975,582	
	39,970,002	507,195,879
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,549,134	27,110,200
Total Reagents	<u>1,</u> 549,134	27,110,200
By-products		
Net proceeds from sale of by-products	583,525	6,085,203
Total By-products	583,525	6,085,203
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	60,652,477	465,066,157
		400,000,101
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	7,037,817	87,262,235
Total Fuel and Fuel-related Costs	\$ 167,457,560	\$ 1,885,269,344
	ψ 107,-07,-00	<u>φ 1,000,203,044</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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December 2018

Purchased Power Total Capacity Non-capacity Not Fuel S Economic m₩h s Fuel \$ Fuel-related \$ Not Fuel-related \$ 1,287,426 211,474 Cherokee County Cogeneration Partners \$ \$ 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 44,928 70.272 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 Tennesse Valley Authority 96,400 2.600 58.804 37,596 Town of Dallas 584 584 Town of Forest City 19,856 19.856 54,159,966 5 40,057,563 \$ 13,849,586 \$ S 261,523 1,387,738 \$ (8,706)**Renewable Energy** HEPS \$ 4,406,020 \$ 594,902 77,027 \$ \$ 3,811,118 \$. DERP - Purchased Power 149 13 136 594,915 \$ 4,406,169 \$ 77.030 S 3,811,254 \$. \$ H8589 PURPA Purchases **Qualifying Facilities** 1,936,441 159.399 37,040 1,712,356 64,686 5 1,936,441 159,399 37.040 S 1,712,356 \$ 64,686 -5 Non-dispatchable Blue Ridge Electric Membership Corp. \$ 1,244,696 \$ 724,668 26,268 \$ 317.217 s 202.811 Havwood Electric 351,238 121,445 152,148 7,201 77,645 12,433 Macquarie Energy, LLC 957,341 583.978 373,363 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 1,078,303 242,385 8,735 835,918 Energy Imbalance - Purchases (277,960) (11, 956)(169, 556)(108,404) Energy Imbalance - Sales (269,174) (269,534) 360 Other Purchases 648 19 648 \$ 3,837,654 1,227,640 55,714 \$ 1,070,995 \$ Ś - 5 1,539,019 **Total Purchased Power** 64,340,230 2,243,477 1,557,522 \$ 41,128,558 \$ 19,373,196 \$ 1,594,999 Interchances In 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) Interchanges Out 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) Net Purchases and Interchange Power ŝ 62,921,937 \$ 2,109,268 1,439,725 \$ 40.313.493 S 19.373.196 S 1,125,979

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

DECEMBER 2018

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

	 Total	C	apacity		No	on-capacity		
Sales	 \$		\$	mWh		Fuel \$	N	Non-fuel \$
Utilities:								
SC Public Service Authority - Emergency	\$ 19,312		-	` 475	\$	16,530	\$	2,782
SC Electric & Gas - Emergency	22,373		-	383		21,699	•	674
Market Based:								
NCMPA	110,344	\$	87,568	392		22,919		(143)
PJM Interconnection, LLC.	69		-	-		-		69
SC Electric & Gas	2,050		-	-		-		2,050
Other:								
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)
Total Intersystem Sales	\$ 8,710,222	\$	87,568	228,210	\$	6,944,585	\$	1,678,069

* 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

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Purchased Power		Toial		Capacity						
Economic		\$		s	mWh	Fuel S	Fuel	-related \$		Not Fuel \$ Fue <u>l-r</u> etated :
therokee County Cogeneration Partners	\$	31,713,488 107,748	\$	10,514,290 107,748	536,248 \$	18,602,696	s	2,596,502		
E Progress - Nativo Load Transfer E Progress - Nativo Load Transfer Bonofit		194,410,960 13,751,928		107,748	5,426,920	174,475,494		19,671,245	5	264,22
E Progress - Foos		(1,093,167)				13,751,828		(1,093,167)		
F Trading North America, LLC.		76,115			3.005	46,430		29,685		
clon Generation Company, LLC.		118,087			4,060	72,034		46,053		
ywood Electric - Economic		487,779		251,870	5,097	143,904		92,005		
acquarie Energy, LLC		29,508,026		-	770,088	17,999,896		11,508,130		
organ Stanley Capital Group		24,839		-	1,112	15,152		9,687		
DEMC		169,200		-	5,490	103,212		65,988		
CMPA CMPA Lead Following Economic		4,490,834		•	71,519	3,053,238		1,437,596		
LAPA Load Following Economic		16,007,553 7,004,810		•	506,485 195,650	10,121,981 4,272,935		5,885,572 2,731,875		
edmont Municipal Power Agency		2,609,446		-	88,744	4,272,935		2,731,875 928,461		
IM Interconnection, LLC.		51,171,173			864.902	31,214,417		19,956,756		
anbow Energy Marketing Corporation		87,525		•	3,285	53,390		34,135		
outh Carolina Electric & Gas Company		212,527			4,600	127,811		84,716		
outhern Company Services, Inc.		1,289,556			45,702	786,630		502,926		
nnesse Valley Authority		1,603,241		•	30,841	977,977		625,264		
e Energy Authority		38,483		-	1,167	23,475		15,008		
wn of Dallas		7,008		7,008	-	•		•		
wn of Forest City	\$	238,272	-	238,272		-	_		-	
	2	354,035,331	_\$	11,119,188	8,564,915 \$	277,523,485	<u>s</u>	65,128,437	S	264,2
Renewable Energy	s	62,977,408	\$	13,300,096	976,170 \$	-	5	49,677,312	s	
ERP - Purchased Power	•	2,713	•	565	49	-	•	2,148	•	
RP - Net Metered Generation		43,550		7,964	15	-		2,140		35,5
	\$	63,023,671	\$	13,308,625	\$ 976,235 \$	-	\$	49,679,460	\$	35,5
HB569 PURPA Purchases										
ualitying Facilities	5	33,208,999		6,541,261 6,541,261	549,098 549,098 \$	<u> </u>	\$ \$	25,585,400	<u>\$</u>	1,082,33
Non-dispatchable										
ue Ridge Electric Membership Corp.	\$	14,972,210	s	8,136,773	295,129 \$	4,169,615			\$	2,665,82
aywood Electric		4,206,307		1,935,370	80,216	1,385,271				885,60
cquarie Energy, LLC		18,266,985		•	307,544	11,142,861				7,124,1
CEMC - Other		647,276		52,776	6,570	362,645				231,8
CMPA - Reliability TE Carolinas LLC		245,400		•	2,610	149,694				95,7
e Carolinas ELC edmont Electric Membership Corp.		1,828,310 7,179,987		3,902,138	36,865	1,115,269				713,0
uth Carolina Electric & Gas Company		131,734		3,902,130	140,56B 1,400	1,999,488 80,358				1,278,3
uthern Company Services, Inc.		2,984,720			47,510	1,820,679				51,3 1,164,0
neration Imbalance		3,782,664			82,265	1,893,961				1,668,7
ergy Imbalance - Purchases		2,199,376			25,123	1,350,748				848.6
ergy Imbalance - Sales		(1,765,005)			•	(6,529,253)				4,764,24
her Purchases		12,518		•	352					12,5
	5	54,692,482	.\$	14,027,057	1,026,152 \$	18,941,336	\$	•	5	21,724,0
Total Purchased Power	\$	504,960,483	<u> </u>	44,996,131	11,116,400 \$	296,464,821	s	140,393,297	\$	23,106,23
erchanges In										
her Catawba Joint Owners		91,135,514		-	7,642,809	56,961,998				34,173,5
S Lee Joint Owner tal Interchanges In		7,725,713 98,861,227		<u> </u>	<u> </u>	6,611,033		-	•	<u>1,114,6</u> 35,289,19
erchanges Out										
her Catawba Joint Owners		(93,139,372)		(1,560,207)	(7,784,646)	(57,610,256)				(33,948,9
atawba- Net Negative Generation		(231,152)			(11,304)	(180,241)				(50,9
S Lee Joint Owner		(9,390,983)			(327,441)	(7,930,708)				(1,460,2)
stal Interchanges Out		(102,761,507)		(1,580,207)	(8,123,391)	(65,721,205)	_	•		(35,460,0

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Twelve Months Ended December 2018

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

		Total	-	 Capacity			N	on-capacity		
Sales		\$	-	 \$		mWh		Fuel \$		Non-fuel \$
Utilities:										
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	Α		Α	1,974		87,826		15,542
Market Based:										
Central Electric Power Cooperative, Inc.		2,793,800	В	2,793,800	в	-		-		-
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	Α	-	Α	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
Other:										
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)
Total Intersystem Sales	\$	93,839,751	_	\$ 4,067,869		1,945,444	\$	86,336,253	\$	3,435,629

* 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

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Line					
No.		Residential	Commercial	Industrial	Total
1 Actual System kWh sales 2 DERP Net Metered kWh generation	input Input				7,490,426,895 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	. L4T/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 (¢/kWn)					
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 (¢/kWn)	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 %	loput				67.56%
9b Production plant allocation factors	Input	43.68%	37.64%	18.68%	100.00%
9c System incurred expense	Input				\$965,786
9d Incurred renewable capacity expense	L9a * 19b * 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

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Jun 27 2019

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

		(Over) / Under Recovery								
Year 2018	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)					
Мау	46,088,697	\$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	71,719,783	(\$925,298)	(\$6,412,545)	(\$1,658,106)	(8,995,949)					
_/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					
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Notes:

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

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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.

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_/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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Total 12 ME December 2018	\$657,498,215 48,634,501 384,692,206	98,161,049 8,633,545 3,466,205 \$1,201,085,721	324.71	1,358.88 392.80 343.97	410.58	358.68	\$675,888,074	41,704,735 384,692,206	98,161,049 8,633,545 3 466 205	370,839,248	\$1,583,385,062	315.40	1,604.54 397 RD	343.87	4,0.50 1,603.31 61.43	168.78	
C Month Month	\$48,585,637 1,499,268 32,884,994	2,272,971 5,696,114 361,043 \$91,289,814	485.71	221.68 442.14 464.11	1,577.30	459.65	\$46,847,568	1,874,256 32,884,994	2,272,971 5,696,114 361 043	29,818,039	\$119,754,995	350.11	1,530.31	464,11	1.677.30 59.86	165.17	
Roctin bham Bailtean ann ann ann ann ann ann ann ann ann	ट	\$1,899,682 \$1,899,682		- 457.22		457.22			\$1, 899,682		\$1,839,682		•	457.22		457.22	
O Conree O	Nuclear									\$10,470,715	\$10,470,715				58.28	58.28	
Mail Greek	 5	\$158,525 \$158,525		510.56		510.56		•	\$158,525		\$158,525		•	510.56		510.56	
McGuie	Nuclear			`						\$10,950,838	\$10,990,838				62.46	62.46	
Marshell	Steam \$22,079,739	\$22.079.739	399.01			10,995	\$13,692,987	148,226			\$13,B41,212	341.84	1,620.84			344.86	
ti redin Ti cedin	ნ	\$110,569 \$110,569		467.48		467.48		\$25,788	110,569		\$136,358		1,521.44	467.48		537.96	632.18

0.59 8.08 , 29.0 3.41 16.41 9,145 3.44 4,004,460 632.18 1,695 63.22 10.88 12.90 • 104,195 909 532.70 25,472 \$104,195 909 532.70 \$105,103 532,60 12,245.96 654.77 1,287.30 128.73 5.57 208 \$130,575 9.16 \$6,858,257 3.19 455.27 455.27 3.19 \$6,858,257 455.27 \$6,858,257 455.27 \$6,858,257 . . . \$12,923,682 361,043 \$13,284,725 442.08 \$12,923,682 442.08 361,043 577.30 450.90 \$13,284,725 1,577.30 450.90 3.11 11.08 3.17 , 445,73 \$8,548,228 273,156 687.75 692.52 445.73 354.20 1,505.97 4,45 3,638,779 19,009 \$14,516,590 286,271 3.52 14.52 5,695,205 567.03 \$12,888,384 5,695,205 \$18,859,860 382.33 3.80 58.53 58.53 \$8,356,486 \$8,356,486 0.59 \$13,103,055 442.19 \$13,103,055 442.19 3.06 \$13,990,604 \$13,103,055 \$13,103,055 442.19 3.06 42.19 • • . \$17,907,637 1,082,966 352.99 61,970 555.02 172.99 \$20,744,336 1,487.41 5,531,427 492.94 3.41 15.65 \$19.525,109 1,219,227 369.55 3.57 \$193,056 \$904,613 \$49,833 143,133 1,321.84 \$741,089 359.55 1,564.97 Z06,117 10,449 1,782.98 2.92 12.43 Avenago Cost of Fuel Purchased (c/MBTU) Coal Gas - CC Gas - CC Gas - Steam Bogas Weighted Average 1,762.38 163,523 417.71 3.39 Average Cost of Fuel Burned (c/MBTU) 35 Cost : Cost Average Cost of Generation (cKWh) Cost Cost Coi - CC Coi - SteamCT Gas - CT Gas - CT Gas - Steam Bogas Nuclear Nuclear Weighted Average Cost of Fuel Purchased (5) Coal Oi Gas - CC Gas - CT Gas - Stoarm Biggas Total Burned MBTUs Coal Oai - CC Oii - StramCT Gas - CT Gas - CT Gas - Steam Biogas Nuclear Total Cost of Fuel Burnod (5) Coal Coal Oll - Steam/CT Gas - CC Gas - CT Gas - Cleam Biogas Nuclear Total

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214,294,473 -2,599,178 97,936,802 28,537,792 2,102,783 2,102,783 2,102,783 2,102,783 2,102,783 2,102,783 2,102,584 949,363,782

-122,476 7,333,012 489,746 1,277,911 22,890 99,815,240 99,815,240

415,485

31,049

23,652

19,560

1,506,423

2,923,367

2,963,222

174 1,506,423

22,890

1.277,737 4,935,525

2,946,257

14,252,377

2,963,222

5,613,397

216,566

.

415,485

17,965,994

31,048

17,596,869

4,013,605

25,347

19,942

13,380,783

5.09

2.98 2.81 3.85 3.85 3.85 11.48 11.48 11.48

5.03

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DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DECEMBER 2018

Lee Steam/CT

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Dan Hiver CC

Cliffside Steam - Dual Fuel

Catawba Nuclear

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Greek Stearn

Allen

Description

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DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DECEMBER 2018

Description	Allen	Belews Creek	Buck	Catawba	Cliffside	Dan River	Lee	<u>L</u> ee	Lincoln	Marshall	McGuire	Mill Creek	Oconee	Rockingham	Current Month	Total 12 ME December 2018
	Steam	Steam	CC	Nuclear	Steam - Dual Fuel	CC	CC	Steam/CT	СТ	Steam	Nuclear	ĊT	Nuclear	СТ		
Net Generation (mWh)																
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			1,961		37,330	42,178	2,550,671
Gas - Steam					128,002			(466)							127,535	187,574
Biogas Nuclear 100%			•	1,420,722		3,259	•								3,259	30,204
Hydro (Total System)				1,420,722	•						1,778,199		1,782,248		4,981,169	59,936,028
Solar (Total System)															323,664 5,768	2,347,624 130,018
Total	26,712	580,843	428,198	1,420,722	496,394	419,416	214,977	1,425	1,057	402,758	1,776,199	1.961	1,782,248	37,330	7,921,672	101,764,129
				.,				1,-20	1,007	-01,700	1,110,100	1,001	1,102,240	37,000	1,521,012	101,104,123
Cost of Reagents Consumed (\$)																
Ammonia		(\$46,049)	\$14,280		\$11,119	\$8,043	\$11,630								(\$977)	\$4,077,078
Limestone	\$24,711	467,587			478,632	00,040	411,000			\$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
Total	\$59,175	\$475,081	\$14,280		489,751	\$8,043	\$11,630			\$492,658					\$1,550,615	\$27,193,652

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<u>Notes:</u> 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/KWn 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

		Belews			-	DECEMBER 20	18					Current	Total 12 ME
Description	Alien	Creek	Buck	Cliffside	Dan River	Lee	Lee	Lincoln	Marshali	Mill Creek	Rockingham	Month	December 2018
oal Data:	Steam	Steam	cc	Steam - Dual Fuel	CC	ĊC	Steam/CT	CT	Steam	CT	CT		
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
i Data:													
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	18,688,297
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 (\$/gai)	2.16	1.99	-	2.08	-	•	2.33	2.10	2.23	2.47	2,17	2.20	2.20
atural Gas Data:													
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													
logas Data:													
BegInning balance													
MCF received during period			-		22,062	-						22,062	210,727
MCF burned during period			-		22,062	-						22,062	210,727
Ending balance													
imestone Data:													
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
												Qtr Ending	Total 12 ME
mmonia Data:												December 2018	December 2018
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

<u>Notes:</u> 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

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

DUKE ENERGY CAROLINAS ANALYSIS OF COAL QUALITY RECEIVED DECEMBER 2018

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

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DUKE ENERGY CAROLINAS ANALYSIS OF OIL PURCHASED DECEMBER 2018

		ALLEN	BEL	EWS CREEK	CL	IFFSIDE
VENDOR	Hi	ghTowers	Н	ighTowers	Hi	ghTowers
SPOT/CONTRACT	. (Contract		Contract	(Contract
SULFUR CONTENT %		0		0		0
GALLONS RECEIVED		75,652		578,080		144,399
TOTAL DELIVERED COST	\$	143,133	\$	1,082,966	\$	273,156
DELIVERED COST/GALLON	\$	1.89	\$	1.87	\$	1.89
BTU/GALLON		138,000		138,000		138,000

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

	NT - 4	•••••••		
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

1,150

Catawba 2

9,269,228

92.01

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:

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- 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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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:

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 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	2	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.

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:

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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 (%
Conventional Hydroelectric Stations:			
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
Pumped Storage Hydroelectric Stations:			
Gross Generation			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
Energy for Pumping			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
Net Generation			
Bad Creek	-391,555		
Jocassee	-137,671		

Notes:

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 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 201	18				
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		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 scal
	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 Performance Review Plan December 2018

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.	
I	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. Precommercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

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

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	Unit	1	Unit	2	Unit	3	
(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	

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	December 2018 McGuire Nuclear Station				
	Unit	1	Unit	2	
(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	

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ι,		Decem Catawba N	ber 2018 uclear Stati	on
	Unit	1	Unit	2
(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

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* 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	

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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.

Buck Combined Cycle Station

Unit 11 Ur	nit 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 0 to Full Scheduled Outages	0	0	0
(F) Scheduled Outages: percent 0.00 of Period Hrs	0.00	0.00	0.00
(G) Net mWh Not Generated due 0 to Partial Scheduled Outages	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 0 to Full Forced Outages	0	0	0
(J) Forced Outages: percent 0.00 of Period Hrs	0.00	0.00	0.00
(K) Net mWh Not Generated due 0 to Partial Forced Outages	0	0	0
(L) Forced Derates: percent of 0.00 Period Hrs	0.00	0.00	0.00
(M) Net mWh Not Generated due 24,041 to Economic Dispatch	24,049	56,416	104,506
(N) Economic Dispatch: percent 15.69 of Period Hrs	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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 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.

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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- 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.

Jun 27 2019

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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- 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.

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.

Jun 27 2019

Duke Energy Carolinas Intermediate Power Plant Performance Review Plan December 2018

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

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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 Units in commercial operation for the full month are presented. Precommercial or partial month commercial operations are not included. 7

January 2018 - December 2018 Oconee Nuclear Station							
	Unit	1	Unit	: 2	Unit 3		
(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	0.4 0	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	

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	January 2018 - December 2018 McGuire Nuclear Station				
	Unit	<u> </u>	Unit 2		
(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	

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	January 2018 - December 2018 Catawba Nuclear Station				
	Unit	1	Unit 2		
(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	0.0 0	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	

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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

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

Jun 27 2019

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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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

Jun 27 2019

Marshall Station

Unit 3	Unit 4
658	660
8,760	8,760
3,176,205	3,675,692
55.10	63.58
372,746	501,545
6.47	8.67
2,091	12,896
0.04	0.22
95,739	81,433
1.66	1.41
145,499	69,994
2.52	1.21
1,971,800	1,440,040
34.21	24.91
5,764,080	5,781,600
89.31	88.48
68.89	75.74
9,553	9,406
	658 8,760 3,176,205 55.10 372,746 6.47 2,091 0.04 95,739 1.66 145,499 2.52 1,971,800 34.21 5,764,080 89.31 68.89

Notes:

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 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

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

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

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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

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)				
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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

Units		Unit 6	
(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:

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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

Cliffside Station

Unit	S	Unit 5
(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:

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partial month commercial operations are not included.

McGee Workpaper 1

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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

	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	35 7,497,468
\$/MWh	6.2269	6.3549	6.0037	6.1217	6.3721	5.8159	5.8206	
Avg \$/MWh		6.1154						
Cents per kWh		0.6115						

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			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
			7,179.8
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
			58,459

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

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	 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

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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	<u>1158.0</u>	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 R

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McGee Workpaper 2

DUKE ENERGY CAROLINAS

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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

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	Sept 2019 - August	
Resource Type	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

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	_ • •
Total Purchases	314,814,153	
Fuel Expense recovered through intersystem sales	(16,986,301)	Workpaper 5
Total System Fuel and Fuel Related Costs	\$ 1,644,345,221	

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McGee Workpaper 4

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

	A	located Economic	: Purc	hase Cost	Economic	Sale	es Cost		Fuel Transf	er P	ayment		JDA Savin	gs Pay	/ment
		DEP		DEC	DEP		DEC		DEP		DEC		DEP		DEC
9/1/2019	\$	475,131	\$	665,890	\$ (169,265)	\$	(112,397)	\$	(10,444,194)	\$	10,444,194	\$	(1,053,331)	\$	1,053,331
.0/1/2019[\$	414,456	\$	591,080	\$ (4,395)	\$	(67,808)	\$	(7,750,156)	\$	7,750,156	\$	(1,182,598)	\$	1,182,598
1/1/2019	\$	950,625	\$	1,370,649	\$ (419,575)	\$	(61,033)	\$	(15,340,171)	\$	15,340,171	\$	(2,955,441)	\$	2,955,441
.2/1/2019	\$	479,370	\$	692,032	\$ (371,479)	\$	(59,958)	\$	(12,761,635)	\$	12,761,635	\$	(1,792,678)	\$	1,792,678
1/1/2020	\$	730,828	\$	1,011,856	\$ (1,806,953)	\$	(2,697,340)	\$	(1,005,527)	\$	1,005,527	\$	626,965	\$	(626,965
2/1/2020	\$	463,058	\$	655,004	\$ (1,255,361)	\$	(1,044,487)	\$	(2,708,449)	\$	2,708,449	\$	(215,029)	\$	215,029
3/1/2020	\$	426,687	\$	608,794	\$ (409,836)	\$	(356,416)	\$	(9,719,397)	\$	9,719,397	\$	(1,442,087)	\$	1,442,087
4/1/2020	\$	459,023	\$	693,091	\$ (291,103)	\$	(49,201)	\$	(10,408,733)	\$	10,408,733	\$	(2,336,142)	\$	2,336,142
5/1/2020	\$	531,216	\$	804,769	\$ (483,810)	\$	(86,028)	\$	(13,269,047)	\$	13,269,047	\$	(2,608,123)	\$	2,608,123
6/1/2020	\$	345,100	\$	504,336	\$ (265,478)	\$	(113,940)	\$	(13,397,425)	\$	13,397,425	\$	(2,137,472)	\$	2,137,472
7/1/2020	\$	587,846	\$	827,961	\$ (399,661)	\$	(463,252)	\$	(12,439,738)	\$	12,439,738	\$	(3,016,091)	\$	3,016,091
8/1/2020	\$	483,920	\$	684,244	\$ (327,024)	\$	(196,140)	Ś	(11,987,821)	\$	11,987,821	Ś	(1,860,381)	\$	1,860,381

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

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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

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-					purchase	sale				sale		purchase
	Transfer P	rojection	Purchase Alloc	ation Delta	Adjusted Tra	ansfer	Fossil Ge	n C	ost	Pre-Net F	'ayı	nents
	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	12 3,728	(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	6 42,936	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

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Net Pre-Net Payments \$ 121,232,293

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McGee Workpaper 6

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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 6:7, Sub 3130

Fall 2018 Forecast

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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:				
	Residentiai	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
outh Carolina:				
	Residential	6,427,468	78,602	6,506,070
	General	5,801,262	49,849	5,851,111
	Industria]	9,500,669	688	9,501,357
	Lighting	42,373	-	42,373
	SC RETAIL	21,771,772	129,139	21,900,911
otal 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 \$ 4,197,028	
	Fuel benefit to be directly assigned to SC Retail	·	\$ 4,197,028	-
	System Fuel Expense		\$ 1.644.345 221	McGee Exhibit 2 Schdule 1 Page 1 o
	Fuel benefit to be directly assigned to SC Retail		\$ 4,197,018	
	Total Fuel Costs for Allocation		\$ 1,648,542,239	

		NC Retail		South Carolina
Reconciliation	System	Customers	Wholesale	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)
Total system actual fuel costs	\$ 1,616,175,484	\$ 1,072,038,447 \$	141,620,557	\$ 402,516,480
OF and REPS Compliance Purchased Power - Capacity	28,169,738	18,684,001		
Total system fuel expense from McGee Exhibit 2 Schedule 1 Page 1	\$ 1,644,345,221	\$ 1,090,922,448		
÷		Exit.2, Sch. 1 page 3		

McGee Workpaper 7

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Revised McGee Workpaper 7a

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

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

North Carolina: South Carolina:

.

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove Impact of SC DERP Net Metered generation	Normalized Test Period Sales
NC RETAIL	59,480,703	155,235	(1,649,623)	-	57,986,315
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 SC as a percentage of total Wholesale as a percentage of total	65.73% 24.22% 10.04% 100.00%				65.41% 24.38% 10.21% 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 System Fuel Exper Fuel benefit to be directly assigned to SC Ret Total Fuel Costs for Allocati	ail	129,139 \$ 32.50 \$ 4,197,018 \$ 1,683,949,859 \$ 4,197,018 \$ 1,688,146,877	- McGee Exhibit 2 Sched	ule 2 Page 1 of 3	
Reconciliation Total system fuel expense from McGee Exhibit 2 Schedule 2 Page QF and REPS Compliance Purchased Power - Capac Other fuel cos	ity ts	System \$ 1,683,949,859 \$ 28,169,738 \$ 1,655,780,122	NC Retail Customers	Wholesale	South Carolina Retail
SC Net Metering Fuel Allocation adjustme Jurisdictional fuel costs after a Allocation to states/class Jurisdictional fuel co: Direct Assignment of Fuel benefit to SC Reta Total system actual fuel co: QF and REPS Compliance Purchased Power - Capac Total system fuel expense from McGee Exhibit 2 Schedule 2 Page	dj. ses sts all sts ity	\$ 4,197,018 \$ 1,659,977,139 \$ 1,659,977,139 \$ (4,197,018) \$ 1,655,780,122 28,169,738 \$ 1,683,949,859	\$ 1,085,791,047 18,884,001	\$ 169,483,666 \$ -	\$ 404,702,427 \$ (4,197,018)

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Exh. 2, Sch 2 page 3

DUKE ENERGY CAROLINAS

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

Fall 2018 Forecast Billed Sales Forecast

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Sales Forecast - MWhs (000)

1997 (JOON)	ſ	Projected sales for the Billing Period	Remove Impact of SC DERP Net Metered generation	Adjusted Sales	
North Carolina:					
	Residential	21,397,058		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		\$ 32.50 \$ 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	e 3 Page 3 of 3, Line 5
	Reconciliation		System	NC Retail Customers	Wholesale !
	Total system fuel expense from McGee Exhibit 2 Scher	dule 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%
	A A Martin A		A	A A A A A A A A A A A A A A A A A A A	

Jurisdictional fuel costs

Total system actual fuel costs

Direct Assignment of Fuel benefit to SC Retail

QF and REPS Compliance Purchased Power - Capacity

Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1

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McGee Workpaper 7b

South Carolina Retail

25.10%

414,736,644

410,539,627

(4,197,018)

144,414,274 \$

144,414,274 \$

\$ 1,652,337,229 \$ 1,093,186,310 \$

\$ 1,676,309,949 \$ 1,112,070,311

1,093,185,310 \$

18,884,001

Exh. 2, Sch.3 page 3

\$ 1,552,337,229 \$ \$ (4,197,018) \$ 1,648,140,211 \$

28,169,738

McGee Workpaper 8

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

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		Janua	ary 2019 Actuals		Normalized Sales	
· · ·		Revenue	KWH Sales	Cents/ kwh	McGee EX 4	Total Annualized Revenues
		(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

Reagent and ByProduct projections

							Magnesium						Gypsum		S	ale of By-Products
Date	Ammonia		Urea		Limestone		hydroxide	Ca	alcium Carbonate		Reagent Cost	(Gain)/ Loss	A	sh (Gain)/Loss	(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) \$	
	\$ 3,176,009	ć	722,995	ć	15,264,049	ć	1,944,022	ė	1,047,728	ć	77 154 007	e	2 095 470	¢	(200 501) 6	3 804 047
	ý 3,170,009	Ŷ	, 22,995	ç	13,204,049	Ş	1,544,022	Ş	1,047,720	Ş	22,154,802	Ş	3,085,428	Ş	(280,581) \$	2,804,847

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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

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QF Capacity

Allocated Economic Purchase cost

Line

No.	Description	Forecast \$	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
	E-7 Sub 1190		,	
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
	E-7 Sub 1163			
	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

13,954,158

29,753,184

197,458,415

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(over)/under

66.39%

65.58%

9,264,165

19,512,138

129,739,014

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DUKE ENERGY CARDUMAS North Carolina Amusi Fuel and Fuel Related Expense Statistication test Twelve Monthis Ended December 31, 2018 Doctet E-7, Sub 1130

System KWA Sales - Sch 4, Adjusted System KWA Sales - Sch 4, Adjusted NC Retall KWH Sales - Sch 4 NC Retall K Adjusted (Sale)	Jan18 8.703,429,931 5.733,819,698 65,88%		Feb18 7,459,691,118 6,031,161,342 67,44%	Marzt 6,449,000,012 6 4,190,034,169 4 64,96%	Apr18 0,590,320,093 4,416,568,036 67,02%	May18 6,601,233,338 1,252,760,024 64,52%	June 18 8,000,317,385 8 5,245,688,511 5 55,49%	hul18 6,480,873,460 8 5,639,360,863 5 56,45%	Aug16 8,207,800,091 6,409,821,248 65,43%	Sep18 8,607,663,860 6,212,763,717 6,212,753,717	0ct18 0ct18 8.345,056,567 4,141,211,561 65.27%	6,681,184,880 6,681,184,880 7,82,832 84,383	DecLA 7,500,839,324 4,692,732,160 65.23%	12 ME 90,593,766,989 59,480,702,586 65.65%
NC resil protoction plant %	U	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%
Fuel and fuel related component of purchased power System Actual 5 - Sch 3 fuelS: System Actual 5 - Sch 3 fuer-takerdS; schonnier Purchases System Actual 5 - Sch 3 fuer-takerdS; gutosed Power for REPS Compliance System Actual 5 - Sch 3 fuer-takerdS; 90 2089	\$.4.8 18,30,8 10,6 11,60	54,851,829 \$ 18,300,781 3,057,332 1,592,902	19,768,561 2,407,886 3,239,022 5,13 2,049,413	\$ 659,127,11 1,331,655 1,5325,56,1 1,522,520,2	8,971,622 \$ 1,355,382 3,894,992 163 2,531,173	7,588,255 \$ 1,684,418 4,543,762 4,543,762 216 216 21420,811	7,853,735 \$ 1,881,586 4,545,750 2,829,385 2,829,385	2,920,154 2,920,154 4,893,476 4,292 2,716,750	24,971,461 \$ 3,759,304 4,813,048 2,487,659 2,487,659	21,908,434 \$ 6,703,809 4,818,507 213 2,471,326	27,621,901 \$ 4,827,502 3,535,758 203 203 2,042,872	26,826,328 \$ 6,105,374 4,331,202 157 2,089,973	40,057,563 \$ 13,849,586 \$ 3,811,118 \$ 311,712 \$ 312,213,50 \$ 312,515,113	277,523,485 65,128,437 48,310,528 2,149 21,102,112
Total System Economic & QFS	6 '11	77,902,966	27,465,007	309'593'11	16,754,332	16,241,434	629'011'21	35,682,485	36,031,695	35,902,289	38,328,236	39,353,034	59,430,759	418,066,724
L <u>evs</u> . Naitec Load Transfers, Naive Load Transfer Benefit & DE - Progress fees	\$ 30,897,	\$ 790,76	15,346,230 \$	7,372,650 \$	7,540,311 \$	\$,735,851 \$	6,332,102 \$	23,577,626 \$	21,641,030 \$	15,422,513 \$	23,414,464 \$	20,577,089 \$	28,953,467 \$	206,805,400
Total System Economic \$ without Native Load Transfers	\$ 47,005,5	\$ 66	12,118,777 \$	10,491,158 5	9,214,021 \$	10,505,583 \$	2 115,817,01	12,109,859 \$	14,390,665 \$	20,479,775 \$	\$ <i>211</i> ,E12,A1	18,775,945 \$	30,477,292 \$	¥251327172
NC Actual \$ (Cale)	\$ 30,967 \$	67,487 \$	8,173,497 \$	6,815,342 \$	6,174,856 \$	6,778,340 \$	7,059,410 \$	B,046,764 \$	9,416,080 \$	13,382,046 \$	\$ EE7,EE7,e	12,125,553 \$	19,880,072 \$	138,553,178
Billed rate (¢/kWh):		0.0868	0.0858	0.0868	0.0868	0.0368	0.0368	0.0668	0.0868	0.1631	0.1911	1101.0	2261.0	
Billed \$;	(6°) \$	\$ 055'6£6'\$	4,369,342 \$	3,638,897 \$	3,835,577 \$	3,693,311 \$	\$ 169,252,4	4,897,517 \$	4,698,172 \$	\$ 160,5E1,01	\$ 495,456,7	8,291,458 \$	\$ 152,204,6	70,448,093
{Over}/ Under \$:	\$ 25,91	\$ 766/98/52	3,804,155 \$	3,176,444 \$	\$ 872,956,2	3,085,029 \$	\$ 611,602,5	3,149,247 \$	4,717,908 \$	\$ 510/052'E	1,779,366 \$	3,834,085 \$	10,477,841 \$	68,105,086
Capacity component of purchased power														
System Actual S - Capacity component of Cherokee Courty Cogen Purchases System Actual S - Capacity component of Purchased Powerfor REPS Compliance System Actual S - Capacity component of 193589 Pura df purchases	م 19.4 س	422,948 \$ 486,469 336,410	422,948 \$ 465,590 362,951	211,474 \$ 421,054 415,622	211,474 \$ 517,448 397,922	\$ 112,716 947,952 212,251	1,374,581 \$ 567,326 271,686	3,172,110 \$ 2,279,476 1,225,424	3,116,270 \$ 2,238,065 1,199,461	630,852 \$ 2,451,979 1,251,154	211,474 5 1,649,703 924,601	211,47¢ 5 659,013 242,932	211,474 5 594,902 5 159,399 5	10,514,290 12,870,784 7,000,074
System Actual 5 - Capacity component of SC DERP System Actual 5 - Sch 2 pg 1 ANNUAL VIEW	\$ 1,2	57 1,225,884 \$	37 1,251,526 \$	1,048,224 5	1,126,872 \$	13 1,089,485 5	2 P19/E12/2	78 6,677,088 \$	84 6,553,880 \$	72 4,334,057 \$	73 2,785,857 \$	<u>1113,438 \$</u>	13 5 965,788 \$	565 30,385,713
NC Actual \$ (calc) [1)	\$	\$ 012,828	845,534 \$	\$ 681,807	\$ 716,137	736,059 \$	\$ 625'569'1	4,511,056 \$	4,427,817 \$	2,928,099 \$	\$ 161,588,1	752.241 \$	652,488 \$	20,528,657
Billed rate (¢/kWh):		0.0241	0.0241	0.0241	0.0241	1420.0	0.0241	0.0241	0.0241	0.0289	6360.0	D.0353	0.0353	
Billed S:	\$ 1,383,9	83,962 \$	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 \$	16,145,316
(OverlyUnder S:	s (5	(255,752) \$	\$ (968,836)	\$ (E21'E0E)	\$ (204,702)	\$ (079'0'5)	229,380 \$	3,149,893 \$	3,122,057 \$	\$ 384,261,1	420,108 \$	\$ {123,234} \$	(1,075,816) \$	4,383,341

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

TOTAL (Over)/ Under 5:

72,488,427

\$ 15412,185 \$ 1,455,322 \$ 2,437,17 \$ 2,794,503 \$ 2,773,159 \$ 6,299,140 \$ 7,80,965 \$ 4,842,500 \$ 2,199,714 \$ 3,042,101 \$ 9,402,023 \$

pure Every Corolinas Morth Carolin Annual Fuel and Fuel Related Expense 2.5% calculation test Tareire Months Ended December 31, 2017 Docket E-7, Sub 1190

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Billed rate (C/Wh):	NC Acrual S (Cale)	System Actual \$ - Sch Z pg 1 ANNUAL VIEW	System Actual 5 - Capacity component of H8589 Purpa GF purchases System Actual 5 - Capacity component of SC DERP	System Actual 5 - Capacity component of Cherokee County Cogen Purchases System Actual 5 - Capacity component of Purchased Power for REPS Compliance	Capacity component of purchased power	(Over)/ Under S:	Bulled S:	Billed rate (c/kWn):	NC Actual \$ (Cale)	Total System Economic \$ without Native Load Transfers	<u>Less:</u> Native Load Transfert, Native Load Transfer Benefit & DE - Progress fees	Total System Economic & OFS	Syntem Actual 5 - Sch 3 Fuel-Halated's Economic Purchases Syntem Actual 5 - Sch 3 Fuel-Halated's Economic Purchases Synem Actual 5 - Sch 3 Fuel-Helated's Purchased Power for REPS Compliance Syntem Actual 5 - Sch 3 Fuel-Halated's HISSO purpa Purchases Syntem Actual 5 - Sch 3 Fuel-Halated's HISSO purpa Purchases	NC retail production plant % Fuel and Fuel related component of purchased power	2017 Syntem KWH Sales - Sch 4, Adjusted NC Retall KWH Sales - Sch 4 NC Retall Kalf Salet, Adjusted (Cale)
	Ŷ	~		\$		Ś	**		\$	ľ	\$ 1	-	*	1	Jar 7,53 4,97
0.0204	544,694 \$	611,826 S		419,234 \$ 392,592		518,549 \$	5,343,741 \$	0.1074	5,862,290 \$	8,882,447 \$	10,063,655 \$	18,946,102	14,477,563 \$ 2,015,378 2,453,055	67.09%	Jan17 7,537,708,015 6 4,974,781,150 4 66.00%
0.0204	558,103 \$	831,819 \$		419,233 \$ 412,586		431,076 \$	4,736,553 \$	0.1074	5,167,630 \$	7,681,049 \$	13,734,418 \$	21,415,467	16,876,907 \$ 1,983,183 2,550,377	67,09%	Feb17 6,554,206,632 4,409,516,555 67.28%
0.0204	446,898 \$	\$ 656,059		209,616 \$ 456,453		436,230 \$	4,470,385 \$	0.1074	4,906,615 \$	7,496,864 \$	5 7,330,149 \$	14,827,013	\$ 10,096,048 \$ 1,423,270 3,307,695	67. 09%	Mar17 6,358,740,783 4,161,725,776 65,45%
0.0204	498,4B5 \$	742,955 \$		209,616 \$ 533,339		(387,975) \$	5,062,086 \$	0.1074	4,674,111 \$	7,083,479 \$	\$ 568'660'9	13,183,374	8,192,583 \$ 946,915 4,043,976	67,09 %	Apr17 7,141,766,120 4,712,572,814 65.99%
0.0204	\$ 885,805	757,715 \$		314,425 \$ 443,290		300,499 \$	4,087,123 \$	0.1074	4,387,622 \$	6,803,227 \$	7,828,909 \$	14,632,136	9,721,355 \$ 1,094,013 3,816,768	67.03%	May17 5,899,728,291 3,804,926,476 64,49%
0.0204	1,264,590 \$	1,884,777 \$		1,362,507 \$ 522,270		356,785 \$	5,218,829 \$	0.1074	5,575,614 \$	6,476,393 \$	\$ 6,973,202 \$	15,449,595	\$ 10,071,142 \$ 1,076,835 4,301,618	67,09 %	June 17 7,386,182,606 4,858,493,561 65.78%
0.0204	3,508,308 \$	5,226,973 \$		3,144,246 \$ 2,084,627		64,35B \$	5,793,154 \$	0.1074	5,857,513 \$	8,924,824 \$	9,283,031 \$	18,207,855	12,025,892 1,880,095 4,300,868	67,09%	Jul17 8,217,318,035 5,393,164,464 65.63%
0.0204	4,372,622 \$.	ŝ	1,341,938 (4,510)	3,144,246 \$ 2,035,395		2,629,15B \$	5,837,295 \$	0.1074	8,466,452 \$	12,847,642 \$		24,609,608	14,840,029 2,503,480 4,332,085 (8,513) 2,942,527	67.09 %	Aug17 8,246,356,880 5,434,256,910 55.90%
0.0241	2,477,994 \$	3,693,266 \$	1,167,715 99	628,850 \$ 1,896,602		2,401,287 \$	4,414,019 \$	0.0268	6,815,306 \$	10,239,874 \$	17,022,95B \$	27,262,832	18,993,838 \$ 1,906,962 3,902,317 2,902,317 242 2,459,473	67.09%	Sep17 7,636,553,967 5,082,625,773 66,56%
0.0241	1,988,180 \$	2,963,235 \$	1,069,000	209,616 \$ 1,684,518		3,094,010 \$	3,798,034 \$	0.0368	6,892,044 \$	10,515,258 \$	15,515,603 \$	26,030,851	17,656,690 \$ 2,121,632 3,805,061 225 2,447,053	67.09 %	0ct17 6,672,440,753 4,373,336,154 65.54%
0.0241	707,946 \$	1,055,141 \$	326,098 37	209,616 \$		4,641,322 \$	3,642,167 \$	0.0868	8,283,489 \$	12,669,920 \$	11,761,966 \$ 17,022,958 \$ 15,515,603 \$ 18,675,689 \$ 20,326,204 \$	31,345,609 \$	22,489,529 \$ 2,815,392 3,655,861 208 2,384,629	67.09%	Nov17 6,414,671,902 4,193,859,450 65.38%
0.0241	\$ 105'645	818,990 \$	234,918 \$ 22 \$	209,616 \$ 374,434 \$		5,399,519 \$	4,006,205 \$	0.0868	9,405,725 \$	14,398,587 \$	20,326,204 \$	34,724,791	25,927,577 \$ 3,654,363 \$ 2,991,972 \$ 147 \$ 2,150,732 \$	67.09 %	Dec17 7,061,789,900 4,613,039,595 65.32%
	17,425,714	25,971,735	4,139,669 [4,251]	10,480,821 11,355,496		19,884,818	56,409,592		76,294,410	116,019,564	144,615,679	260,635,243	181,370,259 23,426,608 43,461,653 (7,691) 12,384,414	67.09W	12 M8 85,127,463,884 56,012,298,689 65,80%

TOTAL (Over)/ Under \$:

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Billad S: (Over)/Under S:

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1,014,183 \$

898,945 \$

848,429 \$

960,728 **\$**

775,691 \$

(469,489) \$ (340,837) \$ (401,531) \$ (462,243) \$

(267,302) \$ 274,114 \$ 2,408,832 \$ 3,264,768 \$ 1,251,209 \$ 932,595 \$

990,476 \$ 1.099,476 \$ 1.107,854 \$ 1.226,785 \$ 1.055,585 \$

1,012,265 \$ 1,113,442 \$ (304,319) \$ (563,941) \$

12,103,858 5,321,856

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25,206,674

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DUKE ENERGY CAROLINAS

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

					Retail		
Line			NORTH	SOUTH	TOTAL		
<u>#</u>	Description	Reference	<u>CAROLINA</u>	CAROLINA	<u>COMPANY</u>	<u>% NC</u>	<u>% SC</u>
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 <i>.</i> 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

			Total	NC		SC	RETAIL
Line			Company	% То		% То	
#	Description	REFERENCE	MWh	Total	MWh	Total	MWh
1	<u>Residential</u> Total Residential		(1,185,150)	76.60	(907,825)	23.40	(277,325)
2	<u>General Service</u> Total General Service		(790,151)	80.59	(636,783)	19.41	(153,368)
3	<u>Industrial</u> 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	(2,277,688)	_	(1,649,623)	=	(507,334)

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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

	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)
ост	(295,132)	119,399	432,355
NOV	(13,417)	(2,573)	(4,846)
DEC	(211,114)	(29,290)	<u> </u>
Total	(1,185,150)	(790,151)	(181,656)

Wholesale

	TOTAL MWH		
2018	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
ОСТ	1,983	10	Haywood
NOV	(390)	11	Piedmont
DEC	(21,401)	12	Rutherford
	<u> </u>	13	Blue Ridge
Total	(120,731)	14	Greenwood

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(2,156,957)

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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

McGee Workpaper 13 Page 1

			NC Proposed KWH ¹	SC Proposed KWH	Wholesale Proposed KWH	
	Estimation		i i oposed attili			
<u>Line</u>	Method ¹	Rate Schedule	Adjustment	Adjustment	Adjustment	Total Company
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)2	(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 WP 13-2	309,143,111

Notes:

¹Two 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

²T 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

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McGee Workpaper 13 Page 2

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Calculation of Customer Growth Adjustment to KWH Sales - Wholesale

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

6	Total System Retail Residential kWh Sale	S	Company Records	29,716,502,591
7	2018 Proposed Adjustment KWH - Reside	ential (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	cket E-7, Sub 1190
DUKE ENERGY CAROLIN	North Carolina Annual F	Coal Inventory Rider Tru	Docket E-7, Sub 1190

Docket	Docket E-7, Sub 1190								
			2018	2018	2018	2018	2018	2019	
No.		i	August	September	October	November	December	January	Total to Date
-	Fuil Load Burn 35 day supply Beginning Actual tons on hand	laput	2,209,515	2,209,515	2,209,515				
7	(including Terminals and In-transit) - actual Endine Actual bans on hand	Input	2,349,694	2,356,042	2,244,622				
•	(including Terminals and In-transit) - actual	Input	2,356,042	2,244,622	2,347,399				
4	Average tons on hand	2/(E1 + Z1)	2,352,868	2,300,332	2,296,010				
'n	Coal tons in excess of 35 days	11-11	143,353	718/06	86,495				
ø	Price per ton	hput \$	73.23 \$	73.23 \$	73.23				
1	Dollars in excess of 35 day supply	15°L6 \$	10,497,741 \$	6,650,537 \$	6,334,064				
80	Number of days supply	L4 / 63,129 tons	37	36	36				
e	Carrying cost percentage 8/1/2018-17/31/2018-131(h)		20037E U	26633XL 0	20121210 201212				
9	Total system amount to recover	\$ 51.21	78.274 \$	49.588 \$	47.228			s	060,271
Ħ	NC allocation percentage	Input	66.6244%	66.6244%	66.6244%				66.6244%
ĩ	Total NC retail amount to recover	110-111 \$	52,149 \$		31,466			\$	116,653
8	NC Actual \$ Collected	Input 5	8,997 \$	24,938 \$	28,962 \$	17,250		S EE	81,827
14	GRT & Reg. Fee percentage	Input	0.14%		0.14%	0.14%	0.14%	0.14%	0.14%
15	GRT and Reg Fee \$'s To Back Out	L13 L14 S	5 51	\$ SE	26 5	24		0	114
16	Rider Excluding GRT & Reg Fee	\$ 517-E11	\$ 186'8	24,903 \$	18,936 \$	17,226 \$	11,631 \$	\$ EE	81,712
11	(Over)/Under Collected - at current tax rate	112-116 \$	43,165 \$	8,135 \$	12,530 \$	(17,226) \$	\$ (119'11) \$	\$ (EE)	34,940
81	(Over)/Under Collected - at future tax rate <u>Notes:</u>	L19*(1-CTR)/(1-FTR) \$	43,016 \$	8,107 \$	12,486 \$	(13,166) \$	(065'FT) \$	\$ (EE)	34,820
	 (a) Carrying costs exclude gross receipts tax and regulatory fee. (b) Revised to reflect current state income tax apportionment percentages. 	y fee. nent 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			0.236688			0.005691		0.763314	.
	Rales 1/01/2018 - 12/31/18			0.236149			0.005692		0.763851	
	Rates 1/1/19 - current			0.233503			0.005697		0.766498	
BEGINNING BAL		0	0	0			0	0	0	0
						1	:	:	3	į
	ALG-JA	43,165	091,54	CR1 OL	CAL'NL	218'22	\$	\$	571	21
	Sep-18	B,135	51,300	1,921	12,114	39,186	205	299	292	390
	Oct-18	12,530	63,630	2,959	15,073	48,757	250	549	326	716
	Now-18	(17,226)	46,604	(4.068)	11,005	35,599	240	769	313	1,029
	Dec-18	(11,631)	34,973	(2,747)	8,258	26,715	11	996	231	1,260
	91-net	(cc)	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	•	34,940	•	8,250	26,690	152	1,422	198	1,855
	Apr-19	0	34,940	0	6,250	26,690	152	1,574	196	2,054
	May-19	•	34,940	•	8,250	26,690	152	1,726	198	2,252
	3un-19	•	34,940	•	8,250	26,690	152	1,878	196	2,451
	Jul-19	•	34,940	•	8,250	28,690	152	2,030	198	2,649
	Aug-19	0	34,940	0	8,250	26,690	152	2,182	196	2,647
ENDING BALANCE		34,940	34,940	8,250	8,250	26,690	2,182	2,182	2,647	2,847

Workpaper 14

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2,847 Total Under-Collection

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37,667

Duke Energy Carolinas, LLC Fossil Fuel Procurement Practices

<u>Coal</u>

- 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.

<u>Gas</u>

- 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.

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Docket No. E-7, Sub 1190 Grant Exhibit 1 Page 2 of 2

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.

Docket No. E-7 Sub 1190 Grant Exhibit 2 Page 1 of 2

DUKE ENERGY CAROLINAS Summary of Coal Purchases Twelve Months Ended December 31, 2018 & 2017 Tons

			<u>Net Spot</u>	
<u>Line</u>	-	Contract	Purchase and	Total
<u>No.</u>	<u>Month</u>	<u>(Tons)</u>	Sales(Tons)	(Tons)
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
13	Total (Sum L1:L12)	7,346,255	1,007,122	8,353,369

Line

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			<u>Net Spot</u>	
		Contract	Purchase and	Total
<u>No.</u>	<u>Month</u>	<u>(Tons)</u>	Sales(Tons)	(Tons)
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
26	Total (Sum L14:L25)	7,851,149	1,482,153	9,333,302

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

Line		
<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	Мау	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
13	Total (Sum L1:L12)	128,793,567
		· · · · · · · · · · · · · · · · · · ·
Lino		

Line		
<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	Мау	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
26	Total (Sum L14:L26)	80,836,215



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)

ERIC S. GRANT CONFIDENTIAL EXHIBIT 3

FILED UNDER SEAL

FEBRUARY 26, 2019

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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

)

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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

STEVEN D. CAPPS CONFIDENTIAL EXHIBIT 1

FILED UNDER SEAL

FEBRUARY 26, 2019

Supplement AL REVISED McGee Exhibit 1 Z/A

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

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
	Current Suel and Fuel Related Cost Frances / Fuel Rider Products In Fig. 6. (1999)				<u> </u>	
	Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)					
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
	Fuel and Fuel Related Cost Factors Required by Rule R8-55					
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
	Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%					
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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McGee Exhibit 2 Schedule 1 Page 1 of 3

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DUKE ENERGY CAROLINAS Torth Carolina Annual Fuel and Fuel Related Expense alculation 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

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Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	Ĕ	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		-
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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			1,644,345,22 1
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

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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
<u>Calcula</u>	tion of Renewable and Cogeneration Purchased Power Capacity Rate by Class					<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 - Jursidicational % 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
Summa	ry of Total Rate by Class					
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

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Line #	Rate Cla		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	В	с	D	E	F	G
							If D=0 then 0 if not then		
			Workpaper 7	Workpaper 8	Line 25 as a % of Column B	C/B	(C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential		21,397,068	\$ 2,183,285,633	\$ 36,718,999	1.68%	0.1715	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%			

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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	0.1501
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000
18	Total Proposed Composite Fuel Rate	Sum	 2.0402
	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	0.1343
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

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REVISED McGee Exhibit 2 Schedule 2 Page 1 of 3

Jun 27 2019

orth Carolina Annual Fuel and Fuel Related Expense
 alculation 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

			Generation	Unit Cost	Fuel Cost
Line #	Unit	Reference	(MWh)	(cents/kWh)	(\$)
			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		
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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 19	Fuel expense recovered through intersystem sales Line losses and Company use	Workpaper 3 & 4	(687,755) (4,366,969)		(16,986,301) -
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

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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
Caiculat	tion_of Renewable Purchased Power_Capacity Rate by Class					<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 - Jursidicational % 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%	1 4.26%	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
Summa	ry of Total Rate by Class					
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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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

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Line #	l	Rate Class	Normalized Test Period MWh Sales	Annual Revenue Current rates	Aliocate Fuel Costs at 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	В	с	D	E	F	G
							If D=0 then 0 if not then		
			Exhibit 4	Workpaper 8	Line 25 as a % of Column B	C/B	(C*100)/(A*1000)	McGee Exhibit 1	E + F = G
1	Residential		22,043,791	\$ 2,183,285,6	33 \$ 40,961,930	1.88%	0.1858	1.7983	1.9841
2	General Service/Lighting		23,564,462	\$ 1,738,716,1	94 32,621,096	1.88%	0,1384	1.9382	
3	Industrial		12,465,801	\$ 687,001,1	67 12,889,240	1.88%	0.1034	2.0233	2.1267
4	NC Retall		58,074,054	\$ 4,609,002,9	94 \$ 86,472,256				

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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	Ş	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 Iorth Carolina Annual Fuel and Fuel Related Expense ERC 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

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Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	Ε	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		
		Line 1 + Line 5 + Line 8 +			
. 10	Total Generation	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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Schedule 3

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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

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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, 2 85	57,717,997
<u>Calcula</u>	tion of Renewable Purchased Power Capacity Rate by Class					Amount
2	Purchased Power for REPS Compliance ~ Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				\$ 14,874,084
4 5	Total of Renewable and QF Purchased Power Capacity NC Portion - Jursidicational % based on Production Plant Allocator	Line 2 + Line 3 Input				\$ 28,169,738 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>Summa</u>	ry of Total Rate by Class					
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

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Line #	Rate	e Class	Projected Billing Period MWh Sales		ial Revenue at errent rates	Increase/		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		8		2	C/B≂D	E	F	G
			Workpaper 7b	v	Norkpaper B	Line 25 as a 9	i of Column 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	2,183,285,633	\$ 4	6,725,815	2.14%	0.2184	1.7983	2.0167
2	General Service/Lighting		23,381,644	\$:	1,738,716,194	Ś :	7,211,315	2.14%	0.1591	1.9382	2.0973
3	Industrial		12,939,285	\$	687,001,167	\$:	4,702,927	2.14%	0.1136	2.0233	2.1369
4	NC Retail	-	57,717,997	\$ 4	4,609,002,994	\$ 9	8,640,057				

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 Retall 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
	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	0.1709
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

Revised McGee Exhibit 2 Schedule 3 Page 3 of 3

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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

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		il e · · ·	5,031,181		(21,289,748)
3	March(1)	٩	- 19	4,190,094	•	4,767,793
4	April(1)		ing a thur and a second	4,416,566	•	(13,736,437)
5	Мау	1	·	4,252,750		6,136,829
6	June(1)			5,245,689		6,622,242
7	July(1)		ana sa	5,639,361		14,497,484
8	August			5,409,821	•	13,507,110
9	September		Р. и.	6,212,764		(8,995,949)
10	October	1.	- g	4,141,212	\$	11,156,943
11	November		-	4,314,713	\$	11,789,339
12	December			4,892,732	Ś	16,666,116
13	Total Test Period		an the Manufacture and the second	59,480,703	\$	111,332,182
					•	
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 F	Recovery - Janua	ry - March 2018 ⁽²⁾		\$	53,688,503
18	Include Under Recovery related to Coal	Inventory Rider			\$	37,667
19	Adjusted (Over)/ Under Recovery				\$	87,165,106
20	NC Retail Normalized Test Period MWh	Sales		Exhibit 4		58,074,054
21	Experience Modification Increment (Dec	crement) cents/H	⟨₩h			0.1501 ¦

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

⁽²⁾ 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

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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

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

Notes:

(i) Prior period corrections not included in rate incurred but are included in over/(under) recovery total

⁽²⁾ 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

Line #	ر Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(0	Reported Dver)/ 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 ⁽¹⁾	2.0122	1.9253	1,709,988	ś	1,503,768
4	April ⁽¹⁾	1.5762	1.9253	1,819,014	\$	(6,335,002)
5	May	1.9140	1.9253	1,860,965	Ś	(210,465)
6	June ⁽¹⁾	1.9786	1.9253	2,190,371	Ś	1,145,088
7	July ⁽¹⁾	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	Total Test Period		_	24,162,007	\$	43,004,122
14	Test Period Wtd Avg. ¢/kWh	2.1057	1.9279			
15	January 2019	2.2307	1.9382	1,936,499	s	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 I	2018 ⁽²⁾		\$	28,174,260
19	Include Under Recovery related to Coal Invento	ory Rider			\$	15,301
20	Adjusted (Over)/ Under Recovery				\$	32,896,080
21	NC Retail Normalized Test Period MWh Sales		E	Exhibit 4		23,564,462
22	Experience Modification Increment (Decremen	t) cents/kWh				0.1396

Notes:

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

⁽²⁾ 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

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Fuel Cost Fuel Cost Reported Incurred Billed NC Retail (Over)/ Under ¢/kWh ¢/kWh **MWh Sales** Recovery Line (a) (b) (c) (d) Month # January 2018 2.0297 1 4.6719 24,642,348 932,643 \$ 2 February 1.7515 2.0297 1,030,502 \$ (2,866,460)March⁽¹⁾ 3 2.2081 2.0297 934,082 \$ 1,676,929 April⁽¹⁾ 4 1.6509 2.0297 1,040,479 \$ (3, 931, 775)5 May 2.0721 2.0297 1,030,399 \$ 436,461 June⁽¹⁾ 6 2.3283 2.0297 1,114,438 \$ 3,315,028 July⁽¹⁾ 7 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)December 12 2.5353 2.0233 974,229 4,987,733 \$ 13 **Total Test Period** 12,555,667 \$ 41,826,395 Test Period Wtd Avg. ¢/kWh 14 2.3595 2.0271 January 2019 15 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 (2) \$ 23,452,816 19 Include Under Recovery related to Coal Inventory Rider \$ 7,951 20 Adjusted (Over)/ Under Recovery \$ 29,487,982 21 NC Retail Normalized Test Period MWh Sales Exhibit 4 12,465,801 22 Experience Modification Increment (Decrement) cents/KWh 0.2366

Notes:

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

⁽²⁾ 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

Supplementel Revised McGee Exhibit 4

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

Line #	Description	Reference	Т	Total Company	North Carolína Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
		Exhibit 6 Schedule 1 (Line 4)						
1	Test Period MWh Sales (excluding inter system sales)	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 *		\$	1,691,073,964	5 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	5 111,332,182	,		

		Winter Colncidental 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

٠ 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.

Supplemental McGee Exhibit 5 J/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

	Rate Case		
	Docket E-7,	Fuel Docket E-7,	Proposed Capacity
Unit	Sub 1146	Sub 1163	Rating MW
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

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DECEMBER 2018 MONTHLY FUEL FILING

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DUKE ENERGY CAROLINAS SUMMARY OF MONTHLY FUEL REPORT

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Docket No. E-7, Sub 1161

Line <u>No.</u>		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	
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
1 9	Total MWH generation	7,921,672	101,764,129
	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

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

Jun 27 2019

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	-	\$ 0,0,000,074
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	48,664,815	691,762,314
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	2 070 071	00 404 040
0547100 natural gas consumed - Steam	2,272,971	98,161,049
0547101 natural gas consumed - Combined Cycle	5,696,114	8,633,545
0547106 biogas consumed - Combined Cycle	31,773,516	373,047,230
0547200 fuel oil consumed - Combustion Turbine	175,961	1,523,560
Total Other Generation - Account 547	57,020	25,830,495
	39,975,582	507,195,879
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,549,134	27,110,200
Total Reagents	1,549,134	27,110,200
By-products		
Net proceeds from sale of by-products	583,525	6 095 202
Total By-products	583,525	6,085,203
Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	11 3,842,8 98	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	60,652,477	465,066,157
Less:		
Fuel and fuel-related costs recovered through intersystem sales	6,944,585	86 226 253
Fuel in loss compensation	6,944,585 92,474	86,336,253
Solar integration charge revenue	92,474 758	925,224 759
Total Fuel Credits - Accounts 447 /456	7,037,817	758 87,262,235
Total Fuel and Fuel-related Costs	<u>\$ 167,457,560</u>	\$ 1,885,269,344

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

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	\$ 946,40	7 \$ 129.545			
City of Kings Mountain		8,979		8,979		• • • • • •	• • •			
DE Progress - Native Load Transfer		27,945,591		•	741,793	23,410,60	1 4,543,696	\$ (8,706)		
DE Progress - Native Load Transfer Benefit		1,156,134		-	141,000	1,156,13		a (o,/uo)		
DE Progress - Fees		(156,964)		_	-	1,100,10				
Haywood Electric - Economic		40,903		20,630	336	12.36	- (156,964)			
Macquarie Energy, LLC		6,826,931		20,000						
NCEMC - Economic		115,200		-	146,439	4,164,42				
NCMPA Instantaneous - Economic				•	3,600	• 70,27				
NTE Carolinas LLC		1,813,810		-	53,310	1,088,46				
Piedmont Municipal Power Agency		3,232,610		•	78,830	1,971,893				
		307,201		-	10,960	184,35	5 122,846			
PJM Interconnection, LLC.		11,214,935		-	313,334	6,841,110	0 4,373,825			
Southern Company Services, Inc.		250,370		-	9,167	152,720	6 97,644			
Tennesse Valley Authority		96,400		-	2,600	58,804				
Town of Dallas		584		584						
Town of Forest City		19,856		19.856						
	\$	54,159,966	\$	261.523	1,387,738	\$ 40,057,563	3 \$ 13,849,586	\$ (8,706)		
			<u> </u>				10,049,000	* (0,700)		
Renewable Energy	\$	4.406.020	\$	594,902	77,027	•				
DERP - Purchased Power	Ψ	149	φ	13	77,027	ф -	\$ 3,811,118 - 136	ş -		
	\$	4,406,169	\$	594,915	77,030	\$	- \$ 3,811,254	<u>s</u>		
HB589 PURPA Purchases								<u>-</u>		
Qualifying Facilities		1,936,441		159,399	07.040					
	5	1,936,441	\$	159,399	37,040	<u> </u>	1,712,356	64,686		
	_ _	1,000,441	<u> </u>	139,399	37,040	<u>s</u>	- \$ <u>1,71</u> 2,356	\$ 64,686		
Non-dispatchable										
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				
Macquarie Energy, LLC		957,341		102,140	12,433			77,645		
NCEMC - Other		4.398		4,398	12,433	583,978	5	373,363		
NCMPA		155,400		4,390	-		•	-		
Piedmont Electric Membership Corp.		592,764			1,110	94,794		60,606		
Generation Imbalance				346,426	11,904	150,266		96,072		
		1,078,303		-	8,735	242,385		835,918		
Energy Imbalance - Purchases		(277,960)		-	(11,956)	(169,556	5)	(108,404)		
Energy Imbalance - Sales		(269,174)		-	-	(269,534	\$)	360		
Other Purchases		648		-	19		•	648		
	\$	3,837,654	_\$	1,227,640	55,714	\$ 1,070,995	<u> </u>			
Total Purchased Power	\$	64,340,230	<u>_</u> \$	2,243,477	1,557,522	\$41,128,558	\$ 19,373,196	\$ 1,594,999		
Interchanges in										
Other Catawba Joint Owners		6,629,878		-	579,425	3,870,366		9 720 240		
WS Lee Joint Owner		1,406,837			43,619			2,759,512		
Total Interchanges In		8,036,714			623,044	1,229,697		177,140		
		0,000,714			623,044	5,100,063	<u> </u>	2,936,651		
Interchanges Out								(1)		
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				
WS Lee Joint Owner		(1,402,174)		_				(15,793)		
Total Interchanges Out		(9,455,007)		(134,209)	(42,514)	(1,216,174		(186,000)		
-				(104,203)	(740,041)	(5,915,128		(3,405,670)		
Net Purchases and interchange Power	S	62,921,937	\$	2,109,268	1,439,725	\$ 40,313,493	\$ 19,373,196	\$ 1,125,979		

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December 2018

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

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DECEMBER 2018

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

		Total		apacity	Non-capacity					
Sales		\$		\$	mWh		Fuel \$		Non-fuel \$	
Utilities:										
SC Public Service Authority - Emergency	\$	19,312		-	475	\$	16,530	\$	2,782	
SC Electric & Gas - Emergency		22,373		· -	383	•	21,699	Ŧ	674	
Market Based:										
NCMPA		110,344	\$	87,568	392		22,919		(143)	
PJM Interconnection, LLC.		69	•	-					69	
SC Electric & Gas		2,050		-	-		-		2,050	
Other:										
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)	
Total Intersystem Sales	\$	8,710,222	\$	87,568	228,210	\$	6,944,585	\$	1,678,069	

* Sales for resale other than native load priority.

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

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Total

s

31,713,488

194,410,960

13,751,828

(1,093,167)

76,115

118.087

487,779

24.839

169,200

4,490,834

16,007,553

7.004.810

2,609,446

87,525

212,527

1,289,556

1,603,241

38,483

51,171,173

29,508,026

107,748

\$

Purchased Power

Economic

Renewable Energy

HB569 PURPA Purchases

Non-dispatchable

Total Purchased Power

Cherokee County Cogeneration Partners

DE Progress - Native Load Transfer Benefit

DE Progress - Native Load Transfer

EDF Trading North America, LLC.

Exelon Generation Company, LLC,

NCMPA Load Following Economic

Piedmont Municipal Power Agency

Southern Company Services, Inc.

Rainbow Energy Marketing Corporation

South Carolina Electric & Gas Company

Haywood Electric - Economic

Morgan Stanley Capital Group

Macquarie Energy, LLC

NTE Carolinas LLC

PJM Interconnection, LLC.

Tennesse Valley Authority

DERP - Purchased Power DERP - Net Metered Generation

Blue Ridge Electric Membership Corp.

Piedmont Electric Membership Corp. South Carolina Electric & Gas Company Southern Company Services, Inc. Generation Imbalance Energy Imbalance - Purchases Energy Imbalance - Sales Other Purchases

The Energy Authority

Town of Forest City

Qualifying Facilities

Haywood Electric Macquarie Energy, LLC NCEMC - Other NCMPA - Reliability NTE Carolinas LLC

Interchanges In Other Catawba Joint Owners WS Lee Joint Owner Total Interchances In

Interchanges Out

Other Catawba Joint Owners Catawba- Net Negative Generation WS Lee Joint Owner Total Interchanges Out

Town of Dallas

REPS

NCEMC

NCMPA

City of Kings Mountain

DE Progress - Feas



mWh

536,248 \$

5,426,920

3.005

4,060

5,097

1,112

5,490

71.519

506,485

195,650

88,744

864,902

3,285

4,600

45,702

30,841

1,167

770.088

Non-capacity

18,602,696 \$

46.430

72,034

143,904

15,152

103,212

3.053 238

10,121,981

4,272,935

1,680,985

53,390

127,811

786,630

977,977

23.475

31,214,417

17,999,896

174,475,494

13,751,828

Fuel \$

Fuel-related \$

2,596,502

19,671,245 \$

29,685

46,053

92.005

9,687

65,988

1,437,596

5,885,572

2.731.875

19,956,756

928,461

34,135

84.716

502,926

625,264

15,008

11,508,130

(1,093,167)

Not Fuel \$

Not Fuel-related \$

264,221

Capacity

\$

\$

10,514,290

107,748

251,870

-

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<u>0</u>00

OFFICIAL

7,008		7 000	1,167		23,475		15,008		
238,272		7,008	-		-		-		
\$ 354,035,331	s	238,272	8,564,915	~	477 500 405			_	
 004,000,001	<u> </u>	11,119,100	6,364,915	\$	277,523,485	\$	65,128,437	\$	264,221
\$ 63,156,850	\$	13,329,597	974,338	\$		\$	49,827,253	\$	-
2,713		565	49		-		2,148		
43,550	_	7,964	15		-				35,586
\$ 63,203,112	\$	13,338,125	974,403	\$		\$	49,829,401	\$	35,586
\$ 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
 <u> </u>			_					_	
\$ 14,972,210	\$	8,136,773	295,129	s	4,169,615			\$	2,665,822
4,206,307		1,935,370	80,216	•	1,385,271			*	885,666
18,266,985		•	307,544		11,142,861				7,124,124
647,276		52,776	6,570		362,645				231,855
245,400		-	2,610		149,694				95,706
1,828,310		-	36,865		1,115,269				713,041
7,179,987		3,902,138	140,568		1,999,488				1,278,361
131,734		-	1,400		80,358				51,376
2,984,720		•	47,510		1,820,679				1,164,041
3,782,664			82,265		1,893,961				1,888,703
2,199,376			25,123		1,350,748				848.628
(1,765,005)			-		(6,529,253)				4,764,248
12,518		•	352						12,518
\$ 54,692,482	\$	14,027,057	1,026,152	\$	18,941,336	\$	-	\$	21,724,089
\$ 504,960,482	\$	44,996,129	11,116,400	\$	296,464,821	\$	140,393,298	\$	23,106,234
91,135,514			7 0 40 000						-
7.725,713		•	7,642,809 271,306		56,961,998				34,173,516
 98,861,227		<u> </u>	7,914,116		6,611,033 63,573.032				1,114,680
30,001,227			7,914,116	-	63,573,032				35,288,195
(93,139,372)		(1,580,207)	(7,784,646)		(57,610,256)				(33,948,909)
(231,152)		•	(11,304)		(180,241)				(50,911)
(9,390,983)			(327,441)		(7,930,708)				(1.460.275)
(102,761,507)		(1,580,207)	(8,123,391)		(65,721,205)	_	-		(35,460,095)
\$ 501,060,202	\$	43,415,922	10,907,125	s	294,316,648	\$	140,393,298	\$	22.934,334

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

Net Purchases and Interchange Power

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

1 1

Twelve Months Ended DECEMBER 2018

		Total	-		Capacity			N	on-capacity		
Sales	<u></u>	\$\$	_		\$		mWh		Fuel \$		Non-fuel \$
Utilities:											
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	Α		-	Α	1,974		87,826		15,542
Market Based:											
Central Electric Power Cooperative, Inc.		2,793,800	В		2,793,800	в	-		-		-
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	Α		-	Α	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
Other:											
DE Progress - Native Load Transfer Benefit		5,666,748			_				5,666,748		
DE Progress - Native Load Transfer		78,027,793			-		1,883,308		5,666,748 74,808,327		-
Generation Imbalance		1,760,829			_		16,679		2,124,888		3,219,466
BPM Transmission		(245,056)			-		10,075		2,124,000		(364,059)
Total Intersystem Sales	\$	93,839,751		\$	4,067,869	· -	1,945,444	\$	86,336,253	\$	(245,056) 3,435,629
•				<u> </u>		. =		<u>.</u>	00,000,200	•	3,433,029

* 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

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

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Jun 27 2019

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

		(Over)	/ Under Recovery		
Year 2018	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
ار_ April	39,952,067	(\$3,469,659)	(\$5,335,002)	(\$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	71,719,783	(\$925,298)	(\$6,412,545)	(\$1,658,106)	(8,995,949)
_/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 recaiculate 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

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Description Math Desk Desk Calends Desk Desk <thdesk< th=""> Desk Desk</thdesk<>																	
Beam State CC Notice State CC Circle for provided () 542,03 517,677,67 542,037,778 542,077,78 542,077,78 542,077,78 544,052,777,78	Description	Allen	Belews Creek	Buck	Catawha	Cliffeida	Dan Biyor	1.00	1								Total 12 ME
Cont Function Cont Number Cont Number Cont Number Cont State Cast Fig. State Stat														Oconee		Month	December 2018
Catal PL/303 PL/307/37 PL/30										•	Q	NUCICE	01	Nuclear	61		
Cli 143.13 1,002.56 11,003.65 10,213.66 10,213.6		640.022	£17.007.037														
GasCP Line Status Status </td <td></td> <td>\$22,079,739</td> <td></td> <td></td> <td></td> <td></td> <td>\$48,585,537</td> <td>\$657,498,215</td>											\$22,079,739					\$48,585,537	\$657,498,215
date of the second se			1,002,000	\$13,103,055		210,100	\$12 923 682	\$5 858 257	-	-	•		•		-		
Link in the stand of							******	40,000,201	104.195	\$110.559			£159 595		£1.000.000		
Train FRAME Status Status <td></td> <td></td> <td></td> <td></td> <td></td> <td>5,695,205</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$130,923</td> <td></td> <td>21,859,082</td> <td></td> <td></td>						5,695,205							\$130,923		21,859,082		
Line Line <thline< th=""> Line Line <thl< td=""><td></td><td>\$103.000</td><td>£10.000 E04</td><td>**************************************</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thl<></thline<>		\$103.000	£10.000 E04	**************************************													
Circle Gast 1,22,1,4 555,02 (42,19) 442,19	1 Viai	\$193,005	\$16,930,004	\$13,103,055		\$14,516,590	\$13,284,725	\$6,858,257	\$105,103	\$110,569	\$22,079,739		\$158,525		\$1,899,682		
OI 1,321,84 172.99 442.19 442.9 453.77 234.71 244.71 <td></td> <td>MBTU)</td> <td></td>		MBTU)															
Size CD Case CT Case CT							-				399.01					485 71	324 71
Cost of Case o		1,321.84	172.99	447 19		692.52	442.00	455.07	-	-	-		-		-		1,358.88
Link			•	442.15			442.08	455.27	522.70	467.49			.			442.14	392.80
Bit State 1.772.39 1.772.39 1.777.39 1.777.39 1.777.30						445.73			552.70	407.40			510.56		457.22		
Average Cast of Fail Burned (p) Oil - Gener Gas - Corr Gas - Corr Corr Gas - Corr Corr Gas - Corr Corr Gas - Corr Corr Gas - Corr Corr Corr Corr Corr Gas - Corr Corr Corr Corr Corr Corr Corr Corr				•													
Case of prime barned (b) G. C.	Weighted Average	1,782.98	492,94	442.19		567.03	450.90	455.27	532.60	467.48	399.01		510.56		457.22		
C) C C Control	Cost of Fuel Burned (\$)																
Construct Gas 163.822 (Gas 1,218.227 (Sas 1,218.227 (Sas 286,271 (Sas 286,272 (Sas 287,72 (Sas 287,72 (Sas 548,285 (Sas 148,285 (Sas 110,490,838 (Sas 158,825 (Sas 110,490,838 (Sas 150,472,15 (Sas 28,484,695 (Sas 28,484,695 (Sas 28,484,985 (Sas 28,484,985 (Sa		\$741,089	\$19,525,109			\$12,888,384	-				\$13 692 987						
Gas-CC St3.103.065 St3.202.482 St6.85.255 St1.410 LATL LATL <thlatl< th=""> LATL LATL <</thlatl<>				•			-				0.002,007					\$46,847,568	\$675,888,074
Circle-OF Gas-Strand Bogat Total Section (Gas-Strand Bogat Total Section (Gas-Strand Bogat (Gas-Strand Bogat Bogat (Gas-Strand Bogat Bogat (Gas-Strand Bogat Bogat Bogat (Gas-Strand Bogat (Gas-Strand Bogat Bogat Bogat Bogat (Gas-Strand Bogat (Gas-Strand Bogat Bo		163,523	1,219,227	610 100 OFF		286,271			25,472	\$25,788	148,226		-		-	1.874.266	41,704,735
Gas-Sham 5.685.205 510,043 510,043 510,050 510,050 510,070,715 5285,121 68,161,18 68,161				\$13,103,055			\$12,923,682	\$6,858,257	\$104 10F	140 500						32,884,994	
Biogas Nuclar/ Taul Sec. 1 Sec. 550.468 Sec. 560.468 Sec. 560.468 Sec. 570.450 Still.9575 Still.9575 Still.9575 Still.9575 Still.9575 Still.9550 Still.975.409 Still.9575 Still.950.839 Still.975.4095 Still.9575 Still.955 Still.955 Still.9555 Still.955 Still.9555 Still.955 Still.955<						5,695,205				110,559			\$158,525		\$1,899,682		
Total \$90.4813 \$20.74.336 \$13.03.066 \$18.859.860 \$13.284.725 \$8.856.257 \$130.575 \$139.575 \$139.576 \$13.81.212 \$10.870.233 \$10.470.715 \$2.818.039 \$37.835.856 Average Cost of Fuel Burned (#MSTU) Cal O1: SteamCT 1.554.37 1.487.41 1.305.97 \$130.575 \$130.575 \$130.576 \$130.812.12 \$10.870.238 \$156.855 \$10.470.715 \$1.899.662 \$11.91.833.850.02 Cal O1: SteamCT 1.554.37 1.487.41 1.305.97 12.245.96 1.521.44 1.802.84 . 1.501.23 1.501.23 Git - CC 0: SteamCT 1.554.37 1.487.41 442.19 1.305.97 \$32.70 467.48 510.55 457.22 442.14 1.501.23 Git - CC 0: SteamCT 1.556.37 1.577.30 1.577.30 1.603.18 1.677.30 1.603.18 445.72 1.677.30 1.603.18 442.18 510.55 457.22 165.17 165.61 165.02 165.17 165.17 165.17 165.17 165.18 166.71 <							361,043	•									
Lam Lond Lond Lond Stable														\$10,470,715			
	10121	\$904,613	\$20,744,336	\$13,103,055	\$8,356,486	\$18,869,860	\$13,284,725	\$6,858,257	\$130,575	\$136,358	\$13,841,212	\$10,990,838	\$158,525	\$10,470,715	\$1.899,682		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Average Cost of Fuel Burned (c/MB)																
Oil - Stearr/CT 1,564.57 1,447.41 1,505.57 442.08 455.27 532.70 467.48 510.55 457.22 442.14 530.31 1,504.54 Gas - CT 442.19 442.08 455.27 532.70 467.48 510.55 457.22 442.14 530.31 1,505.57 410.58 Gas - Steam 1,577.30 1,577.30 1,577.30 1,577.30 510.55 58.28 457.22 457.72 467.48 58.63 58.63 382.33 450.50 455.27 684.77 537.85 344.85 62.46 510.56 58.28 457.22 467.47 166.78 Average Cost of Generation (c/kWh) 2.92 3.41 3.52 1.227.30 632.18 3.41 3.41 3.43 2.98 Cil - Stear/CT 12.43 1.557 3.05 3.11 3.19 5.57 10.88 8.08 6.09 5.09 3.28 Gas - CC 3.05 3.17 3.19 5.57 10.88 8.08 6.09 5.09		359.55	352.99			354.20			-		341.94					250.11	515 (0
Control Market		166407															315.40
Cas- CT Castor Half of the start Solution Solution <th< td=""><td></td><td>1,004.97</td><td>1,487.41</td><td>442.10</td><td></td><td>1,505.97</td><td>440.00</td><td>455.03</td><td>12,245.96</td><td>1,521.44</td><td>1,620.84</td><td></td><td>-</td><td></td><td>•</td><td>1,530.31</td><td>1,604,54</td></th<>		1,004.97	1,487.41	442.10		1,505.97	440.00	455.03	12,245.96	1,521.44	1,620.84		-		•	1,530.31	1,604,54
Gas - Stam 445.73 1.577.30 1.677.30 62.46 58.29 1.577.30 1.603.81 Nuclear 58.63 382.3 450.50 455.27 654.77 537.96 344.86 62.46 58.29 1.577.30 1.603.81 Nuclear 62.46 58.29 1.577.30 1.603.81 1.577.30 1.603.81 <				446.10			442.05	400.27	532 70	A67 49			- - -				
Nuclear 58.63 360.7.50 455.27 684.77 537.86 542.66 56.28 1,577.30 1,602.31 Weighted Average 417.71 369.55 442.19 58.63 362.33 450.50 455.27 684.77 537.86 244.86 652.46 510.56 58.28 457.22 165.17 160.371 Average Cast of Generation (c/kWh) Col 2.92 3.41 3.52 - - 3.41 3.43 2.98 Oil - CC 0il - Staam/CT 12.43 15.65 11.452 . 128.73 632.218 - - 15.56 17.94 Gas - CC 3.06 14.52 . 128.73 63.22 16.41 - - 15.56 17.94 Gas - Steam . 3.06 3.11 3.19 5.57 10.88 8.08 5.09 5.39 3.85 Biogas 						445.73				401.40			510.55		457.22		
Weighted Average 417.71 369.55 442.19 58.63 362.33 450.90 455.27 654.77 537.86 344.86 62.46 510.56 58.28 457.22 165.17 166.78 Avorage Cast of Generation (c/kWh) OCI - CC 2.92 3.41 3.52 . . 3.41 3.43 2.98 OI - SC 3.41 3.42 . 3.41 . 3.43 2.98 OI - SC 3.41 3.65 14.52 . 128.73 63.22 16.41 . . 3.43 2.98 Gas - Steam 3.06 3.11 3.19 5.57 10.88 8.08 5.09 5.33 3.85 Biggas . 0.59 11.06 . <t< td=""><td></td><td></td><td></td><td>•</td><td></td><td></td><td>1,577.30</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>				•			1,577.30	-									
Average Cast of Generation (c/kWh) 1,267,30 632,27 694,77 537,95 344,86 52.46 510,56 58,28 457,22 165,17 166,76 Average Cast of Generation (c/kWh) 1,267,30 632,19 3.41 3.52 3.41 3.52 3.41 3.41 3.41 3.43 2.98 Oil - CC 3.06 14.52 128.73 632.22 16.41 15.56 17.94 Gas - CC 3.06 3.11 3.19 5.57 10.88 8.09 5.09 5.39 3.45 3.43 2.98 Gas - CT 3.06 0.59 3.80 3.17 3.19 5.57 10.88 8.09 5.09 5.39 3.45 Biogas 0.59 11.08 11.08 0.62 0.59 5.09 1.51 1.56 Burned MBTU's 2.061/7 5.53/47 3.68,779 2.90 3.44 0.62 8.08 0.59 5.09 1.51 1.56 Burned MBTU's 2.903,222 19,009 2.923,367 1.506,423 19,560 23,652 31,049 415,405		417.71	200 EE														
Coal 2.92 3.41 3.52 1,207,30 632.16 3.41 3.43 2.98 OB - CC 12.43 15.65 14.52 1 128.73 63.22 16.41 - - 15.56 17.94 Gas - CC 3.06 3.11 3.19 5.57 10.89 8.08 5.09 5.39 3.10 2.81 Gas - CT 3.06 4.45 3.11 3.19 5.57 10.89 8.08 5.09 5.39 3.10 2.81 Biogas - 0.59 11.08 - - 0.62 0.59 0.62 </td <td>erergined Average</td> <td>417.71</td> <td>309.55</td> <td>442.19</td> <td>58.63</td> <td>382.33</td> <td>450.90</td> <td>455.27</td> <td>654.77</td> <td>537,95</td> <td>344.86</td> <td>62.46</td> <td>510.56</td> <td>58.28</td> <td>457.22</td> <td>165.17</td> <td></td>	erergined Average	417.71	309.55	442.19	58.63	382.33	450.90	455.27	654.77	537,95	344.86	62.46	510.56	58.28	457.22	165.17	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$									1.287.30	632.18							
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 5.57 10.88 8.08 5.09 5.39 3.85 Gas - Steam 4.45 1.08 1.08 8.08 5.09 5.39 3.85 Boggas 0.59 11.08 11.08 11.08 11.08 11.48		2.92	3.41			3.52	-	-			3.41					7.49	2.02
Gas-CC 3.06 3.11 3.19 12.73 63.22 16.41 - 5.56 17.96 Gas-Steam 3.06 3.11 3.19 5.57 10.88 8.08 5.09 5.39 3.85 Bogas 4.45 11.08 10.62 0.62 0.62 0.59 5.09 1.51 1.56 Burned MBTU's Col. CC Col. CC 0.62 0.09 0.62 0.09 0.62 0.62 0.69 0.59 5.09 1.51 1.56 0.62 0.62 0.6		12.42	15 EE	-													
Gas - CT Gas - Steam 3.10 2.81 Gas - Steam 4.45 4.45 5.57 10.88 8.08 5.09 5.39 3.85 Biogas 0.59 11.08 0.62 0.59 11.08 11.08 Weighted Average 3.39 3.57 3.06 0.59 3.80 3.17 3.19 9.16 12.90 3.44 0.62 0.59 0.60 0.62 Burned MBTU's 0.62 206,117 5,531,427 3.638,779 4.004,460 13,380,783 214,294,473 Coal 206,117 5,531,427 3.638,779 4.004,460 13,380,783 214,294,473 Oil - CC 0.62 2.963,222 2.923,367 1,506,423 19,059 3,145 122,476 2,599,178 Gas - CT 2.963,222 2.923,367 1,506,423 19,560 23,652 31,049 415,485 499,746 28,537,792 Gas - GT 1,277,737 174 22,890 1,277,911 2,102,783 12,2476 25,92,792 31,049 415,485 499,746 28,280 216,190 Nuclear 1,277,917 122,490 17,595,869 17,595,869 17,595,869 17,595,869 12,2800 216,190		16.40	10.00	3.06		14.52			128.73	63.22	16.41		-		•		17.94
Gás - Steam 4.45 5.03 9.33 3.85 Biogas 11.08 11.08 4.45 Nuclear 0.59 11.08 11.08 Weighted Average 3.39 3.57 3.06 0.59 3.80 3.17 3.19 9.16 12.90 3.44 0.62 0.59 0.60 0.62 Burned MBTU's Coal 206,117 5,531,427 3,638,779 4,004,460 13,380,783 214,294,473 Oil - CC 0il - CC 2,963,222 3,638,779 208 1,695 9,145 122,476 2,599,178 Gas - CT 2,963,222 19,009 208 1,695 9,145 12,2476 2,599,178 Gas - CT 2,963,222 1,277,737 174 19,560 23,652 31,049 415,485 499,746 28,357,792 Biogas 1,277,737 174 22,890 17,595,869 17,955,894 49,815,240 603,676,564 Nuclear 14,252,377 2,946,257 1506,423 19,942 25,947 4,013,665 17,955,994 49,815,240 603,676,564 Old 216,566 5,613,397 2,963,222 14,252,377 1506,423 19,942 25,947 17,955,899 1	Gas - CT			2.50			3.11	0.19	5.57	10.89			0.00				
Nuclear 0.59 11.08 11.08 11.08 11.48 Weighted Average 3.39 3.57 3.06 0.59 3.80 3.17 3.19 9.16 12.90 3.44 0.62 0.59 0.60 0.62 Burned MBTU's Coal 206,117 5,531,427 3,638,779 4,004,450 13,380,783 214,294,473 Oil - CC 0il - Stearn/CT 10,449 81,970 19,009 208 1,695 9,145 122,476 2,559,178 Gas - CC 2,963,222 2,923,367 1,506,423 19,560 23,652 31,049 415,485 489,746 26,591,78 Gas - Stearn 1,277,737 174 22,890 12,279 23,652 31,049 415,485 489,746 28,637,792 Biogas 1,277,737 174 22,890 12,279 12,279 12,279 210,2763 28,690 21,049 49,815,240 60,367,554 Nuclear 14,252,377 2,936,927 1506,423 19,942 25,947						4.45							0.08		5.09		
Unstant 0.53 0.53 0.53 0.60 0.62 0.53 0.60 0.62 Weighted Average 3.39 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 1.51 1.56 Burned MBTU's Coal 206,117 5,531,427 3,638,779 4,004,460 13,380,783 214,294,473 Oil - CC 0il - CC 2,963,222 2,923,367 1,506,423 1,695 9,145 - 122,476 2,599,178 Gas - CT 2,963,222 2,923,367 1,506,423 19,560 23,652 31,049 415,485 489,746 26,539,178 Gas - CT 2,963,222 2,923,367 1,506,423 19,560 23,652 31,049 415,485 489,746 26,539,178 Gas - CT 2,2890 1,277,737 174 22,890 1,277,711 2,102,783 210,278 Biogas 1,277,911 2,2890 10,2785,869 17,985,899 17,985				-			11.08	-				-					
Burned MBTU's Coal 206,117 5,531,427 3,638,779 - 4,004,460 - 13,380,783 214,294,473 Oil - CC - 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 19,560 23,652 31,049 415,485 499,746 28,537,792 Gas - Gas - Steam - 1,277,737 174 - 22,890 - 17,595,869 17,965,994 9,815,240 - 22,890 - 22,890 - 22,890 - 17,955,869 17,965,994 9,815,240 603,676,564		3.90	3 57	2.06		2.00	9 1 7										
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 19,560 23,652 31,049 415,485 489,746 28,537,792 Gas - CT 12,277,737 174 19,560 23,652 31,049 415,485 489,746 28,537,792 Biogas 1,277,737 174 22,890 1,277,911 2,102,783 210,2783 Nuclear 14,252,377 29,48,257 19,942 25,947 419,465 19,959 17,955,994 49,815,240 603,676,564 Yodal 216,566 5,613,397 2,963,222 14,855,2377 1506,493 19,942 25,947 11,965,994 49,815,240 603,676,564		0.00	0.07	0.00	0.09	3.60	3.17	3.19	9,16	12.90	3.44	0.62	8.08	0.59	5.09	1.51	
Oil - CC 13,80,783 214,294,473 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 19,560 23,652 31,049 415,485 499,746 28,357,792 Gas - GT 1,277,737 174 19,560 23,652 31,049 415,485 499,746 28,357,792 Biogas 1,277,737 174 22,890 12,279 1,277,911 2,102,783 Nuclear 14,252,377 29,48,257 19,942 25,947 4114,665 17,955,994 49,815,240 Total 216,566 5,613,397 2,963,222 14,252,377 15,06,423 19,942 25,947 4114,665 17,955,994 49,815,240 603,676,564	Burned MBTU's																
Dil - 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 19,560 23,552 31,049 122,476 2,599,178 Gas - CC 19,560 23,552 31,049 415,485 489,746 28,537,792 Gas - Steam 1,277,737 174 19,560 22,890 1,277,911 2,102,783 Nuclear 14,252,377 22,890 17,595,869 17,965,994 49,815,240 603,676,564 Yotal 216,566 5,613,397 2,963,222 14,852,377 4,935,525 2,946,257 15,064,233 19,942 25,947 417,955,994 49,815,240 603,676,564		206,117	5,531,427			3,638,779			•		4,004,460					13,380,783	214 294 473
Gas - CC 2,963,222 2,923,367 1,054,233 1,053 5,145 122,476 2,599,178 Gas - CT 19,560 23,652 19,560 23,652 31,049 415,485 489,746 28,537,792 Gas - Stearn 1,277,737 174 122,890 1,277,911 2,102,783 Biogas 14,252,377 22,890 17,595,869 17,965,994 49,815,240 603,676,564 Nuclear 126,566 5,613,397 2,963,222 14,855,237 4,835,525 2,946,257 15,06,423 19,942 25,947 419,450 17,955,994 49,815,240 603,676,564		10 44 9	81 970			10 000				4 44 -							
Gas - CT 7,393,012 97,936,802 Gas - Steam 1,277,737 174 31,049 415,485 489,746 28,537,792 Biogas 1,277,737 174 1,277,917 1,277,917 1,277,917 1,277,911 2,102,783 Nuclear 14,252,377 22,890 17,595,869 17,955,994 49,815,240 603,676,564 Total 216,566 5,613,397 2,963,222 14,825,2377 4,835,525 2,945,257 1,506,423 19,942 25,947 4,935,609 17,965,994 49,815,240 603,676,564		10,443	01,370	2,963,222		19,008	2,923,367	1 506 422	208	1,695	9,145		•		•		
Gas - Steam 1,277,737 174 51,050 413,465 403,745 28,537,792 Biogas 22,890 22,890 1,277,911 2,102,763 1,277,911 2,102,763 Nuclear 14,252,377 14,252,377 1506,423 19,942 25,947 17,595,869 17,955,994 49,815,240 603,676,564 Total 216,566 5,613,397 2,953,222 14,252,377 4,935,525 2,945,257 1,506,423 19,942 25,947 47,955,994 49,815,240 603,676,564							2,020,007	1,000,420	19.560	23.652			31.040		415 405		
Nuclear 14,252,377 14,355,525 2,945,257 1,506,423 18,942 25,947 4,913,669 17,959,994 49,815,240 603,676,564 49,815,240 603,676,564						1,277,737		174					01,049		415,485		
Total 216,566 5,613,397 2,963,222 14,252,377 4,935,525 2,946,257 1,506,423 19,942 25,947 17,559,869 17,965,994 49,815,240 603,676,564				-	***		22,890	-									
		216.566	5,613 397	2 963 222		4 935 525	2 946 257	1 606 422	10 040		4 04 7 60-					49,815,240	
			-10,007	-,,	· · · · · · · · · · · · · · · · · · ·	-1000,050	2,040,201	1,300,423	18,942	≥0,347	4,013,605	17,596,869	31,049	17,965,994	415,485	72,502,058	

Jun 27 2019

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Schedule 5 Page 1 of 2



DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DECEMBER 2018

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Description	Allen	Belews Creek	Buck	Catawba	Cliffside	Dan River	Lee	Lee	Lincoln	Marshall	McGuire	Mill Creek	Осслее	Rockingham	Current Month	Total 12 ME
	Steam	Steam	CC.	Nuclear	Steam - Dual Fuel	CC	CC	Steam/CT	СТ	Steam	Nuclear	CT	Nuclear	CT	Month	December 2018
Net Generation (mWh)																
Coal Oil - CC	25,397	573,052			366,421					401,855					1,366,724	22,653,740
Oil - Steam/CT Gas - CC Gas - CT	1,315	7,791	428,198		1,972	- 416,157	214,977	20 -	41	903		•		-	- 12,042 1,059,332	232,515 13,695,555
Gas - Steam Biogas			-		128,002	3,259	-	1,871 (466)	1,016			1,961		37,330	42,178 127,536	2,550,671 187,574
Nuclear 100% Hydro (Total System) Solar (Total System)				1,420,722		-1					1,778,199		1,782,248		3,259 4,981,169 323,664 5,768	30,204 59,935,028 2,347,824
Tota!	26,712	580,843	428,198	1,420,722	495,394	419,416	214,977	1,425	1,057	402,758	1,778,199	1,961	1,762,248	37,330	7,921,672	130,018 101,764,129
Cost of Reagents Consumed (\$) Ammonia Limestone Sorbents	\$24,711	(\$46,049) 467,587 53,543	\$14,280		\$11,119 478,632	\$8,043	\$11,630			\$374,113					(\$977) 1,345,043	\$4,077,078 19,594,631
Urea Re-emission Chemical Dibasic Acid Activated Carbon	34,464	-								73,539 45,004					127,081 45,004	2,353,883 928,117 69,161
Total	\$59,175	\$475,081	\$14,280		489,751	\$8,043	\$11,630			\$492,656					34,464 \$1,550,615	<u>170,782</u> \$27,193,652

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<u>Notes:</u> Detail amounts may not add to totals shown due to rounding. Data is reflected at 100% ownership. Schodule excludes in-transit and terminat 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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				TOLEANDIG			N AND INVENTORY	HEPORT					
		Belews				DECEMBER 20	18					Current	Total 12 ME
Description	Allen Steam	Creek Steam	Buck CC	Cliffside Steam - Dual Fuel	Dan River CC	CC	Lee Steam/CT		Marshall	Mill Creek	Rockingham	Month	December 2018
Coal Data:	otean	Slean	00	Steam - Duar Fuer	66		Steam/C1	CT	Steam	CT	CT		
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
Oll Data:													
Beginning balance	90,694	221,182	-	236,089	-		714,747	9,834,797	312,274	4,366,782	3,238,190	19,014,755	16 060 500
Gallons received during period	75,652	578,080	-	144,399	-		•		-	4,000,702	0,200,150	798,131	16,962,536 21,144,157
Miscellaneous adjustments	448	(35,415)	-	(11,633)	-		(9,425)	-		_		(57,379)	
Gallons burned during period	75,879	596,667		137,943	-		1,520	12,305	66,449			889,408	(352,297) 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	
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
Natural Gas Data:													LiLG
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	0.000.054	105 105 100
MCF burned during period			2,880,290	1,244,450	2,818,207	1,473,258	19,360	23,206		30,487	-	8,889,956	125,135,402
Ending balance					-11	.,,	10,000	20,200			400,698	8,889,956	125,135,402
Blogas Data:													
Beginning balance													
MCF received during period			-		22,062	-						22,062	210,727
MCF burned during period					22,062	-						22,062	210,727
Ending balance												22,002	210,727
Limestone Data:													
Beginning balance	23,869	38,673		34,190					37,083			133,815	100.000
Tons received during period	-	6,707		7,615					12,836			27,159	169,322 444,242
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
												Qtr Ending	Total 12 ME
Ammonia Data:												December 2018	December 2018
Beginning balance		1,315										1,315	1,159
Tons received during parlod		901										901	4,715
Tons consumed during period		583										583	4,715
Ending balance		1,633										1,633	1,633
Cast of ending inventory (\$/ton)		620.44										620.44	620.44
Nataa													S
<u>Notes:</u> Detail amounts may not add to totals sh	own due to rounding	7.											chedule
Schedule excludes in-transit and termina	al activity.	-											jp
Bas is burned as received; therefore, in	ventory balances ar	e not maintained.											Ē

DUKE ENERGY CAROLINAS ANALYSIS OF COAL PURCHASED DECEMBER 2018

STATION	ТҮРЕ	QUANTITY OF TONS DELIVERED	DELIVERED COST		IVERED PER TON
ALLEN	SPOT	-	\$-	\$	-
	CONTRACT	-	-	•	-
	ADJUSTMENTS	<u> </u>	49,933		
	TOTAL		49,933		
BELEWS CREEK	SPOT	-	11,982		_
	CONTRACT	221,261	17,706,037		80.02
	ADJUSTMENTS	· -	189,618		-
	TOTAL	221,261	17,907,637		80.93
CLIFFSIDE	SPOT				
	CONTRACT	95,812	- 7,221,379		- 75.37
	ADJUSTMENTS		1,326,849		
	TOTAL	95,812	8,548,228		89.22
MARSHALL	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
ALL PLANTS	SPOT	96,525	8,193,685		94.62
	CONTRACT	483,536	38,283,079		84.89 79.17
	ADJUSTMENTS		2,108,773		-
	TOTAL	580,061	\$ 48,585,537	\$	83.76

DUKE ENERGY CAROLINAS ANALYSIS OF COAL QUALITY RECEIVED DECEMBER 2018

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

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DUKE ENERGY CAROLINAS ANALYSIS OF OIL PURCHASED DECEMBER 2018

	-			_			
		ALLEN	BELEWS CREEK				
VENDOR	Hi	ghTowers	H	lighTowers	H	ghTowers	
SPOT/CONTRACT	I	Contract		Contract		Contract	
SULFUR CONTENT %		0		0		0	
GALLONS RECEIVED		75,652		5 78, 080		144,399	
TOTAL DELIVERED COST	\$	143,133	\$	1,082,966	\$	273,156	
DELIVERED COST/GALLON	\$	1.89	\$	1.87	\$	1.89	
BTU/GALLON		138,000		138,000		138,000	

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Duke Énergy Carolinas Power Plant Performance Data

-		ver Plant Performance I Twelve Month Summary January, 2018 - December, 201	y	,
		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

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:

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 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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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:

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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.

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Duke Energy Carolinas Power Plant Performance Data

Schedule 10 Page 7 of 8

Twelve Month Summary January, 2018 through December, 2018

Hydroelectric Stations

Station Name	Net Generation (mWh)	Capacity Rating (mW)	Operating Availability (%
Conventional Hydroelectric Stations:			-
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
Pumped Storage Hydroelectric Stations:			
Gross Generation			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
Energy for Pumping			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
Net Generation			
Bad Creek	-391,555		
Jocassee	-137,671		

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 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 Pre-commercial Combined Cycle Units

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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 201	8				
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	-	n/a	n/a	n/a
February 20	18				
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 blinas Base Load Power Plant Performance Review Plan

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Period: December, 2018

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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	••••••		• • • • • • • • • • • • • • • • • • •	****	
-	an a	3	None		2800 22 W W W W W W W W W W W W W W W W W			
`,`	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
r 1	- •	2	None					· · · · ·
	n ar an	-	م. م				· · · · · · · · · · · · · · · · · · ·	
	-							
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								Page 1 of 24
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Duke Energy Carolinas Base Load Power Plant Performance Review Plan December 2018

Belews Creek Station

Unit	Duration of Outage	Type of Outage	Cause	ause 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. Precommercial or partial month commercial operations are not included.

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

Data is reflected at 100% ownership.

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Duke Energy Carolinas Base Load Power Plant Performance Review Plan

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December 2018 Oconee Nuclear Station

		Oconce IV	uclear Statio	J11				- 75
_	Unit	1	Unit	t <u>2</u>	Unit	3		Ť
(A) MDC (mW)	847		848	ι.	859	,	~د	Ö
(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	~ * ¥ ~ ~ ~ •	0
* (E) Net mWh Not Gen due to Partial Scheduled Outages	······································	0.00	0	0.00	0*	¢ 0. 00	· • • • • • • • • • • • • • • • • • • •	. N N
(F) Net mWh Not Gen due to Full Forced Outages	150,653	23.91	0	0.00	0	0.00	****	S
* (G) Net mWh Not Gen due to Partial Forced Outages	-1,856	-0.30	-17,934	-2.84	-12,935	-2.02	ی بادی را <u>با</u> مه د ۲ ₀ 8	,
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00	n i transministration	
* (I) Core Conservation	0	0.00	0	0.00	Ĩ,	0.00	میں سامند با جا جا ہے تھ مہیں ہے۔ جا جا ہے تھ میں اور جا جا ہے ہے جا جا ہے تھ مہیں ہے۔ اور اور اور اور اور اور اور اور اور اور	- 1
(J) Net mWh Possible in Period	630,168	100.00%	630,912	100.00%	639,096	100.00%	and for the second s	- "
(K) Equivalent Availability (%)	ه مستقد می معند است. است است است معنان د	75.43	. مند به اد -	100.00		100.00	ر مر سار خا م در ور ج	- , 1
(L) Output Factor (%)	an con contra con a succession and	100.39	• •	102.84		102.02	nu) - Mai Aline Anganang	• •
Heat Rate (BTU/NkWh)	and the state of a sign of a	10,230		10,050	-	10,001		-

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Duke Energy Carolinas Base Load Power Plant Performance Review Plan

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]	Decemł McGuire Ni					
	Unit	1	Uni	it 2			2
(A) MDC (mW)	1158	-	1158				E.
(B) Period Hours	744	- <u>-</u>	744)	• • *		Ŭ
(C) Net Gen (mWh) and Capacity Factor (%)	891,451	103.47	886,748	102.92	առաջ ու ոչ հարու՝ է է է		
(D) Net mWh Not Gen due to Full Schedule Outages	.0	0.00	Ő	0.00	است من من مع مع من	р (с. 1916). р: -	010
* (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	م بر دوب معمو م م م ک م ک ک ا	ي يعسين مدين من الد من الله بر الله	
* (G) Net mWh Not Gen due to Partial Forced Outages	-29,899	-3.47	-25,196	-2.92		' ¶ana Uana mu ⊿g ⊿a	9
* (H) Net mWh Not Gen due to Economic Dispatch		0.00	Ō	0.00		and a second and a s	•••
* (I) Core Conservation	0	0.00	0	0.00	π π⊌π κ ποπ – unor"(Poloi) σ τ γ	t na menanananana anasi9a a	~
(J) Net mWh Possible in Period	861,552	100.00%	861,552	100.00%	a a grada a construição de	یر سامی یک محمد است. ایس سامی کردی ا	
(K) Equivalent Availability (%)	r ⊂ Bran 20an an ger yn ann	100.00	***	100.00	ب برس¢هی(ایین کار میشد. محمد محمد محمد محمد محمد محمد محمد مح	and the standard second	_ +
(L) Output Factor (%)		103.47		102.92		معالم المعالي المعالي المعالي المعالي المعالي المعالي المعالي	
Heat Rate (BTU/NkWh)	an a "don e a see e	9,869		9,923	•••••• τ τ τ τ τ τ τ τ τ τ τ τ τ τ τ τ	ere e de l'an la la la	

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Duke Energy Carolinas Base Load Power Plant Performance Review Plan

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		Catawba Nu				ទី
	Unit	1	Uni	<u>t 2</u>		ļ.
(A) MDC (mW)	1160		1150		 5	a 🦉
(B) Period Hours	744	· ·	744	, <u>,</u> ,		
(C) Net Gen (mWh) and Cápacity 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	ی و یک میں میں اسم میں اسم میں اسم اسم اسم اسم اسم اسم اللہ اللہ اللہ اللہ اللہ اللہ اللہ الل	
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00	ene a narraí a a	<u> </u>
* (G) Net mWh Not Gen due to Partial Forced Outages	145	0.02	-12,146	-1.42	na anaran sanaga yara sana anar na anar na anar na sana anaran anar	• • • • •
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	an 'n an 'n an brail a ^h san a	بریون دی دی اور به می می اور ا
* (I) Core Conservation	0	0.00	0	0.00	ан ал ал ал ан ар ар ан ар ан ар У В Э С с	al na si banga na sanana ang Tangana ang Tangana ang
(J) Net mWh Possible in Period	863,040	100.00%	855,600	100.00%	Y Yann na na an	أمريهم بهنه الله الانتقامين
(K) Equivalent Availability (%)	antina ana ao	63.35		100.00	ا بورومدرومد ما ما در ما ما از از از ا	
(L) Output Factor (%)	an an ann an	97.63	·· 2	101.42	n an	n an
Heat Rate (BTU/NkWh)	an una care e S	10,134		9,967		
· · · · · · · · · · · · ·	***	ŭ	-	1 	ین کې اين سره په محمد د خد خ	

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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	

• 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. Jun 27 2019

Buck Combined Cycle Station

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	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:

- 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.

Jun 27 2019

Dan River Combined Cycle Station

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	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:

- 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

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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)	9,8 67	10,142	

Notes:

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 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.

Jun 27 2019

WS Lee Combined Cycle

(A) MDC (mW)223223337783(B) Period Hrs744744744744(C) Net Generation (mWh)65,80567,05082,122214,977(D) Capacity Factor (%)39.6640.4132.7536.90(E) Net mWh Not Generated due to Full Scheduled Outages78100781(F) Scheduled Outages: percent of Period Hrs0.470.000.000.13(G) Net mWh Not Generated due to Partial Scheduled Outages0000(H) Scheduled Outages90,51990,519140,922321,961(J) Forced Outages: percent of Period Hrs54.5654.5656.2155.27(K) Net mWh Not Generated due to Full Forced Outages0000(J) Forced Outages0.000.000.000.000.00(J) Forced Outages90,51990,519140,922321,961(K) Net mWh Not Generated due to Farital Forced Outages6.000.000.000.00(D) Partial Forced Outages90,51990,519140,922321,961(K) Net mWh Not Generated due to Economic Dispatch8.8078.34327,68444,834(N) Economic Dispatch: percent of Period Hrs5.315.0311.047.70(O) Net mWh Possible in Period165,912165,912250,728582,552(P) Equivalent Availability (%)44.9745.4443.7944.60(Q) Output Factor (%)91.3294.9583.1289.03 </th <th></th> <th>Unit 11</th> <th>Unit 12</th> <th>Unit ST10</th> <th>Block Total</th>		Unit 11	Unit 12	Unit ST10	Block Total
(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 (J) Forced Derates: percent of Period Hrs 54.56 54.56 56.21 55.27 (K) 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 165,912 165,912 250,72	(A) MDC (mW)	223	223	337	. 783
Image: Construction of the construc	(B) Period Hrs	744	744	744	744
(E) Net mWh Not Generated due to Full Scheduled Outages 781 0 0 781 (F) Scheduled Outages 0.47 0.00 0.00 0.13 (G) Net mWh Not Generated due to Partial Scheduled Outages 0 0 0 0 (G) Net mWh Not Generated due to Partial Scheduled Outages 0 0 0 0 0 (H) Scheduled Derates: percent of Period Hrs 0.00 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 (L) Forced Derates: percent of Period Hrs 5.31 5.03 11.04 7.70 (O) Net mWh Not Generated due to Economic Dispatch: percent of Period Hrs 5.31 5.03 11.04 7.70 (O) Net mWh Possible in Period 165,912 165,912 250,728 582,552 582,552 (P) Equivalent Availab	(C) Net Generation (mWh)	65,805	67,050	82,122	214,977
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 0 (H) Scheduled Derates: percent of Period Hrs 0.00 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 (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 45.4	(D) Capacity Factor (%)	39.66	40.41	32.75	36.90
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 (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		781	0	0	781
to Partial Scheduled Outages 0 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	(F) Scheduled Outages: percent of Period Hrs	0.47	0.00	0.00	0.13
Period Hrs 0.00 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		0	0	0	0
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	(H) Scheduled Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
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		90,519	90,519	140,922	321,961
to Partial Forced Outages 0 0 0 0 0 (L) Forced Derates: percent of Period Hrs 0.00 0.00 0.00 0.00 0.00 (M) Net mWh Not Generated due to Economic Dispatch 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		54.56	54.56	56.21	55.27
Period Hrs 0.00 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		0	0	0	0
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		0.00	0.00	0.00	0.00
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		8,807	8,343	27,684	44,834
(P) Equivalent Availability (%) 44.97 45.44 43.79 44.60 (Q) Output Factor (%) 91.32 94.95 83.12 89.03		5.31	5.03	11.04	7.70
(Q) Output Factor (%) 91.32 94.95 83.12 89.03	(O) Net mWh Possible in Period	165,912	165,912	250,728	582,552
(D) II	(P) Equivalent Availability (%)	44.97	45.44	43.79	44.60
(R) Heat Rate (BTU/NkWh) 9,815 9,566 2,061 6,775	(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.

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Duke Energy Carolinas Intermediate Power Plant Performance Review Plan December 2018

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. Precommercial or partial month commercial operations are not included.

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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:

٠ Units in commercial operation for the full month are presented. Pre-

commercial or partial month commercial operations are not included.

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	Unit	: 1	Uni	t 2	Unit	3		
(A) MDC (mW)	847	ч. п. С. . Д	848	. 6 .	859	~	• /	
(B) Period Hours	8760	*	8760	* 2	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	7.0 7	0	0.00	582,288	7.74	net e no no en lige somen	~
(E) Net mWh Not Gen due to Partial Scheduled Outages	29,529	0.40	347	°0.00	46,294	0.62	е на скорени 2	
(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	na po estador en estado En estador en	•
(H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00	0	0.00	i e e en parte sedita ser	*
(I) Core Conservation		0.00	0	0.00	,0 _,	, 0.00	a wa wa ka	- ~-
(J) Net mWh Possible in Period	7,419,720	100.00%	7,428,480	100.00%	7,524,840	100.00%	άρις ε Ε Γιας το 1979 - 20 μαριθιατικό -	-
(K) Equivalent Availability (%)	مب استور سد این این ا در	89.94		100.00		92.12	in internet souther and the team	-
(L) Output Factor (%)	iin i qaabaan maa	100.52		102.06		100.36	in an the Same Service again an	к.
	стар, л. с. с. с. ж.	10,233	مو د	10,127	*	10,102	ne exercic	۰.

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	Base Load P		rgy Carolin t Performar		Plan Page 15 of 24	СОРҮ
27 X		-	- Decembe luclear Stat			Ĭ
	Unit	1	Uni	t 2		Ĕ
(A) MDC (mW)	1158		1158			Ŭ
(B) Period Hours	* 8760	- 6 N	8760	• 		
(C) Net Gen (mWh) and Capacity Factor (%)	10,359,250	102.12	9,502,818	93.68	erre and a second as a second s	•
(D) Net mWh Not Gen due to Full Schedule Outages	a O	0.00	791,628	7.80	n na anga na an Nga na anga na a	5
* (E) Net mWh Not Gen due to Partial Scheduled Outages	796	0.01	28,506	0.28		23
(F) Net mWh Not Gen due to Full Forced Outages	34,991	0.34	. 0	0.00	مسر وماندور مشر میشود می در در مارو ماروه می مرا به می ماند. ما ور	5
* (G) Net mWh Not Gen due to Partial Forced Outages	-250,957	-2.47	-178,872	-1.76	ανα παταγάτα το έχει μας _ αγγα	- 9
* (H) Net mWh Not Gen due to Economic Dispatch	. 0	0.00	~ :0	0.00		- !
* (I) Core Conservation	0	0.00	0	0.00	en menten han sin tre proder in der ministerie (sinderspesien aus en	,
(J) Net mWh Possible in Period	10,144,080	100.00%	10,144,080	100.00%	n na sana ang ang ang ang ang ang ang ang ang	;
(K) Equivalent Availability (%)	na ta anno an a an	99.56	4	91.80	is a second s	1
(L) Output Factor (%)	aa oo oo a a a a a B	102.47	~ 、	101.61	n n n n n n n n n n n n n n n n n n n	
Heat Rate (BTU/NkWh)	***************************************	9,957		10,015		4

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January	2018 - December 2018				
Catawba Nuclear Station					

	Base Load		rgy Carolin t Performar		Plan Pa	age 16 of 24	сорү
, TA	Jan	•	- Decembe Nuclear Stat				
	Unit	: 1	Uni	t 2			Ĕ
(A) MDC (mW)	1160		1150	د	v	• • • •	Ö
(B) Period Hours	. 0	-	8760	~ -			,
(C) Net Gen (mWh) and Capacity Factor (%)	9,510,487	102.28	9,269,228	92.01		ب با بار در ا ن ا	
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	777,783	7.72	· * * * *	مسيوسية مسائنية من المسيد الم	9
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	76,740	0.76		arana arang arakas di ,	
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00	ν το το α _{μα} ⁹⁹ το μ	anna 18 mar 18 mar na anna 19	<u> </u>
* (G) Net mWh Not Gen due to Partial Forced Outages	0 	0.00	-49,751	-0,49	ه ه ور موجود می و م م م ۲۰۰۸ م ۱۹۹۹ م ۱۹۹۹ م ۱۹۹۹ م	н — Ани, гар на и Р Да Р да Р да Р да Р д	;
* (H) Net mWh Not Gen due to Economic Dispatch	анал 4 dires, 6 de 2 ин - сле О	0.00	0	0.00	 The state of the state of the state 	un in fer un mericularis an re	
* (I) Core Conservation*	,	0.00	Ő,	0.00	an a	αμαλατικά του	,
(J) Net mWh Possible in Period	0	100.00%	10,074,000	100.00%	ente en l'approve de éco en	ત્ર ક≟ન્દ્ર તેરીકે જાવનાવ	zm l
(K) Equivalent Availability (%)	Мардыл ^а М. № (АМС-Сад), эн Мар с, бий с, <u>с,</u> , 27 22 - у	95.52	na a a a	91.84	an gu an ann an sua an an S	معمد بعد معامد معالم محمد المعالي معمد 	
(L) Output Factor (%)	Ծես առելու բացըն եսել է է	100.33	consecutive and a second	99.71	in na i n seura a. In na in seura a.	ւս է ասելել հաղոր է որոշ է է թարար։	-Fr
Heat Rate (BTU/NkWh)	ter an	10,098	م رخه مد	10,048	*************************************	سه من مع مع مع اين اين	; +
ه وه و و و ه و و و ه و و و ه و و و و و	1 • • • • • • •	a 		8 6 	• • •	ал — с — с — с — с — с — с — с — с — с —	-

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Belews Creek Station

	Unit I	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. ٠ .

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

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.

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Data is reflected at 100% ownership.

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

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:

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 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

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:

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- 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

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 mWb 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

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

Unit	ts	Unit 6
(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

Units in commercial operation for the full month are presented. Pre-commercial or

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partial month commercial operations are not included.

Notes:

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Cliffside Station

Unit	'S	Unit 5
(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:

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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

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	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs Cost (Gross of Joint Owners)	9,270,870 \$57,728,557	9,127,064 \$ 58,001,149	10,021,874 \$ 60,167,863	9,249,360 \$ 56,622,253	7,252,338 \$ 46,212,440	6,692,637 \$ 38,923,889	6,844,888 \$ 39,841,317	58,459,031 357,497,468
\$/MWh	6.2269	6.3549	6.0037	6,1217	6.3721	5.8159	5.8206	
Avg \$/MWh Cents per kWh		6.1154 0.6115						

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		,	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
			7,179.8
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
		-	58,459
	Proposed Nucle	ar Capacity Factor	92.95%

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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

	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	
MDC	1160.1	1150.1	1158.0	1157.6	847.0	848.0	859.0	
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 Capaci	ty F

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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

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
tun of River	4,839,425
Net pumped Storage	(3,874,211)
Fotal Hydro	965,214
atawba Joint Owners	(14,888,880)
ee CC Joint Owners	(878,400)
EC owned solar	184,444
otal Generation	201,114
urchases for REPS Compliance	1,204,212
ualifying Facility Purchases - Non-REPS compliance	1,275,248
ther Purchases	66,854
llocated Economic Purchases	319,079
pint Dispatch Purchases	6,4 14,946
otal Generation and Purchased Power	9,280,339
otal Generation and Purchased Power	
uel Recovered Through intersystem Sales	(687,755)

McGee Workpaper 3

83,018,229

92,298,568

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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

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 Purchases for REPS Compliance Capacity Purchases of Qualifying Facilities - Energy Purchases of Qualifying Facilities - Capacity Other Purchases JDA Savings Shared Allocated Economic Purchase cost Joint Dispatch purchases Total Purchases		63,867,566 13,295,654 58,754,197 14,874,084 2,029,948 19,972,407 9,109,705 132,910,592 314,814,153	• • • •
Fuel Expense recovered through intersystem sales		(16,986,301)	Workpaper 5
Total System Fuel and Fuel Related Costs	\$ 1	L,644, 3 45,221	

McGee Workpaper 4

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

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	 Allocated Economic	rchase Cost	Economic Sales Cost					Fuel Transf	er P	ayment	JDA Savings Payment				
	 DEP		DEC		DEP		DEC	DEP			DEC		DEP		DEC
9/1/2019	\$ 475,131	\$	665,890	\$	(169,265)	\$	(112,397)	\$	(10,444,194)	\$	10,444,194	\$	(1,053,331)	\$	1,053,331
10/1/2019	\$ 414,456	\$	591,080	\$	(4,395)	\$	(67,808)	\$	(7,750,156)	\$	7,750,156	\$	(1,182,598)	\$	1,182,598
11/1/2019	\$ 950,625	\$	1,370,649	\$	(419,575)	\$	(61,033)	\$	(15,340,171)	\$	15,340,171	\$	(2,955,441)	\$	2,955,441
12/1/2019	\$ <u>479,370</u>	\$	692,032	\$	(371,479)	\$	(59,958)	\$	(12,761,635)	\$	12,761,635	\$	(1,792,678)	\$	1,792,678
1/1/2020	\$ 730,828	\$	1,011,856	\$	(1,806,953)	\$	(2,697,340)	\$	(1,005,527)	\$	1,005,527	\$	626,965	\$	(626,965)
2/1/2020	\$ 463,058	\$	655,004	\$	(1,255,361)	\$	(1,044,487)	\$	(2,708,449)	\$	2,708,449	\$	(215,029)	\$	215,029
3/1/2020	\$ 426,687	\$	608,794	\$	(409,836)	\$	(356,416)	\$	(9,719,397)	\$	9,719,397	\$	(1,442,087)	\$	1,442,087
4/1/2020	\$ 459,023	\$	693,091	\$	(291,103)	\$	(49,201)	\$	(10,408,733)	\$	10,408,733	\$	(2,336,142)	\$	2,336,142
5/1/2020	\$ 531,216	\$	804,769	\$	(483,810)	\$	(86,028)	\$	(13,269,047)	\$	13,269,047	\$	(2,608,123)	\$	2,608,123
6/1/2020	\$ 345,100	\$	504,336	\$	(265,478)	\$	(113,940)	\$	(13,397,425)	\$	13,397,425	\$	(2,137,472)	\$	2,137,472
7/1/2020	\$ 587,846	\$	827,961	\$	(399,661)	\$	(463,252)	\$	(12,439,738)	\$	12,439,738	\$	(3,016,091)	\$	3,016,091
8/1/2020	\$ 483,920	\$	684,244	\$	(327,024)	\$	(196,140)	\$	(11,987,821)	\$	11,987,821	\$	(1,860,381)	\$	1,860,381

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Sept 19 - Aug 20

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\$ 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

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DUKE ENERGY CAROLINAS North Carolina Annual Fuel and Fuel Related Expense Projected Merger Payments Billing Period Sept 2019 through Aug 2020

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Docket E-7, Sub 1190

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F					purchase	sale						sale		purchase
	Transfer Projection P		Purchase Alloc	ation Delta	Adjusted Tra	ansfer		Fossil Ge	n C	ost	Pre-Net Payments			nents
	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC		PEC		DEC	<u> </u>	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	Ś	9,917,629
4/1/2020	580,234	41,238	(4,789)	4,789	580,234	46,027	\$	19.35	\$	17.80	\$	819,312	Ś	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	Ś	19.09	Ś	16.62	Ś	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

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

Fall 2018 Forecast Billed Sales Forecast

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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	5,801,252	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	295,315		296,315
	Retail Sales	79,489,769	129,139	79,518,908
	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 Fuel benefit to be directly assigned to SC Retail			McGee Exhibit 2 Schdule 1 Page 1
	Total Fuel Costs for Allocation	-	\$ 4,197,018	
	Total Fuel Costs for Allocation		\$ 1,648,542,239	

		NC Retail		South Carolina
Reconciliation	System	Customers	Wholesale	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	5 (4,197,018)		ş -	\$ (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		
otal 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	1	

McGee Workpaper 7

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Revised McGee Workpaper 7a

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

Fail 2018 Forecast

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

> North Carolina: South Carolina:

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove Impact of SC DERP Net Metered generation	Normalized Test Period Sales
NC RETAIL	59,480,703	242,974	(1,649,623)		58,074, 054
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 SC as a percentage of total Wholesale as a percentage of total	65.73% 24.22% <u>10.04%</u> 100.00%				65.52% 24.41%
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 System Fuel Expense Fuel benefit to be directly assigned to SC Retail Total Fuel Costs for Allocation	_	129,139 \$ 32.50 \$ 4,197,018 \$ 1,683,362,477 \$ 4,197,018 \$ 1,687,559,495	McGee Exhibit 2 Schedu	le 2 Page 1 of 3	
Reconciliation Total system fuel expense from McGee Exhibit 2 Schedule 2 Page 1 QF and REPS Compliance Purchased Power - Capacity Other fuel costs		System \$ 1,683,362,477 \$ 28,169,738 \$ 1,655,192,739	NC Retall Customers	Wholesale	South Carolina Retall
SC Net Metering Fuel Allocation adjustment		\$ 4,197,018			

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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

Fall 2018 Forecast **Billed Sales Forecast**

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Sales Forecast - MWhs (000)

MAUR [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:						
Joan 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	•	
Track Description						
Total Retail Sales	Residential	27,824,536	78,602	77 002 170		
	General	28,928,964	49,849	27,903,138		
	Industriai	22,439,954	45,845	28,978,813 22,440,642		
	Lighting	296,315	000	22,440,842		
	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		120.420			
	Marginal fuel rate per MWh for SC NEM		129,139 \$ 32.50			
	Fuel benefit to be directly assigned to SC Retail		\$ 32.50 \$ 4,197,018	•		
	System Fuel Expense			McGee Exhibit 2 Schedu	le 3 Page 1 of 3	
	Fuel benefit to be directly assigned to SC Retail Total Fuel Costs for Allocation		\$ 4,197,018			_
	i Dial Fuer Cosis (of Allocation)		\$ 1,880,506,986	McGee Exhibit 2 Schedi	ule 3 Page 3 of 3, Line:	5
	Reconciliation		System	NC Retail Customers	Wholesale	s
	Total system fuel expense from McGee Exhibit 2 Scher	dule 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%	8.749	ж.
	Jurisdictional fuel costs		\$ 1,652,337,229	\$ 1,093,186,310	\$ 144,414,274	\$ ا
	Direct Assignment of Fuel benefit to SC Retail		\$ (4,197,018)		\$ -	\$
-	Total system actual fuel costs		\$ 1,648,140,211		\$ 144,414,274	\$
	QF and REPS Compliance Purchased Power - Capacity	r	28.269.738	18.884.001		

QF and REPS Compliance Purchased Power - Capacity

Total system fuel expense from McGee Exhibit 2 Schedule 3 Page 1

McGee Workpaper 7b

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18,884,001

1,112,070,311 Exh. 2, Sch.3 page 3

28,169,738

\$ 1,676,309,949 \$

South Carolina Retail

25.10%

414,736,644

410,539,627

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(4,197,018)

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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

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	 Janu	ary 2019 Actuals		Normalized Sales	
	Revenue	XWH Sales	Cents/ kwh	McGee EX 4	Total Annualized Revenues
-	 (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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North Carolina Annual Fuel and Fuel Related Expense Projected Reagents and ByProducts Billing Period Sept 2019 through Aug 2020 Docket E-7, Sub 1190

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Reagent and ByProduct projections

				Magnesium					Gypsum		Sa	le of By-Products
Date	Ammonia	Urea	Limestone	hydroxide	Calc	ium Carbonate	Reagent Cost	(0	Gain)/ Loss	As	h (Gain)/Loss	(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 ,2 64,049	\$ 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

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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
	E-7 Sub 1190			
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
	E-7 Sub 1163			
	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

McGee Workpaper 10

DUKE ENERGY CARQUINAS North Carolina Annual Fuel and Fuel Related Expense 2.5% calculation test Twelve Months Ended December 91, 2018 Docket F-7, Sub 1190

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velve Months Ended December 51, 2018 xket E-7, Sub I190

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2018 System KWH Seles - Sch 4, Adjusted NC Retail KWH Seles - Sch 4 NC Retail % of Seles, Adjusted (Celc)	Jan 18 703,429,931 733,819,698 65.88%	Feb18 7,459,691,118 5,031,181,342 67,44%	4,190,094,169	4,416,566,0	93 6,59 36 4,25			Jul 18 8,486,873,480 5,639,360,853 66,45%	Aug 18 8,267,869,991 5,409,621,248 65,43%	Sep18 9,507,963,860 6,212,763,717 65,34%	Oct18 6,345,056,567 4,141,211,581 65,27%	Nov18 8,631,164,890 4,314,713,247 64.58%	Dec18 7,500,839,324 4,892,732,160 65.23%	12 ME 90,593,766,989 59,480,702,586 65.66%
NC retail production plant %	67.56%	67,56%	67,55%	67.5	5%	67.56%	67.56%	67.56%	67.56%	67.56%	67.56%	67,56%	67,56%	67.55%
Fuel and Fuel related component of purchased power														
System Actual 5 - Sch 3 Fuel5: System Actual 5 - Sch 3 Fuel-related5; Economic Purchases System Actual 5 - Sch 3 Fuel-related5; Purchased Power for REPS Compliance System Actual 5 - Sch 3 Fuel-related5; SC DERP System Acutal 5 - Sch 3 Fuel-related5; H8589 purge Purchases	\$ 54,851,829 18,300,781 3,057,382 122 1,692,902	\$ 19,768,561 2,407,886 3,239,022 125 2,049,413	\$ 11,751,95 1,331,655 2,726,563 134 2,053,505	1,356,3 3,894,9 1	82 92 63	7,588,225 \$ 1,684,418 4,543,762 218 2,424,811	7,853,735 \$ 1,881,586 4,545,750 223 2,829,385	25,151,873 2,920,154 4,893,476 232 2,716,750	\$ 24,971,461 \$ 3,759,304 4,813,048 223 2,487,659	5 21,908,434 6,703,809 4,818,507 213 2,471,326	27,821,901 4,827,502 3,635,758 203 2,042,872	26,826,328 5,105,374 4,331,202 157 2,089,973	\$ 40,057,563 \$ 13,849,586 \$ 3,811,118 \$ 136 \$ 1,712,356 \$	277,523,485 65,128,437 48,310,528 2,149 27,102,125
Total System Economic & QF\$	77,902,966	27,465,007	17,863,805	16,754,3	32 1	16,241,434	17,110,679	35,682,485	36,031,695	35,902,289	38,328,236	39,353,034	59,430,759	415,056,724
<u>Less:</u> Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 30,897,067	\$ 15,346,230	\$ 7,372,65	7,540,3	11 \$	\$,735,851 \$	6,332,102 \$	23,572,626	\$ 21,641,030	15,422,513	\$ 23,414,464 \$	\$ 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	\$ 9,214,0	21 \$ 1	0,505,583 \$	10,778,577 \$	12,109,859	\$ <u>14,3</u> 90, <u>665</u> \$	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	\$ 6,174,8	56 \$	6,776,340 \$	7,059,410 \$	8,045,764	\$ 9,416,080 \$	13,382,046 \$	9,733,733 \$	12,125,553 \$	19,880,072 \$	138,553,178
Billed rate (¢/kWh):	0.0868	0.0865	0.086	3 0.08	68	0.0868	0.0868	0.0868	0.0868	0.1631	0.1921	0.1922	0.1922	
Blied \$:	\$ 4,979,550 \$	4,369,342	\$ 3,638,897	\$ 3,835,57	77 \$	3,693,311 \$	4,555,631 \$	4,897,517	\$ 4,698,172 \$	10,132,031 \$	- 7,954,367 <u>\$</u>	8,291,468 \$	9,402,231 \$	70,448,093
(Over)/ Under S:	\$ 25,987,937 \$	3,804,155	\$ 3,176,444	\$ 2,339,23	78 \$	3,085,029 \$	2,503,779 \$	3,149,247	\$ 4,717,908 \$	3,250,015 \$	1,779,356 \$	3,834,085 \$	10,477,841 \$	68,105,086
Cepecity component of purchased power														

System Actual § - Capacity component of Cherokee County Cogen Purcheses System Actual § - Capacity component of Purchased Power for REPS Compliance System Actual § - Capacity component of H8589 Purpa QF purchases System Actual § - Capacity component of SC DERP System Actual § - Sch Z pg 1 ANNUAL VIEW	\$ 422,948 \$ 486,469 316,410 57 1,225,884 \$	422,948 \$ 465,590 362,951 37 1,251,526 \$	211,474 \$ 421,064 415,622 <u>54</u> 1,048,224 \$	211,474 \$ 517,448 397,922 28 1,126,872 \$	817,211 \$ 539,749 232,512 13 1,089,485 \$	1,374,581 \$ 567,326 271,586 21 2,213,614 \$	3,172,110 \$ 2,279,476 1,225,424 78 6,677,088 \$	3,116,270 \$ 2,238,065 1,199,461 84 6,553,880 \$	630,852 \$ 2,451,979 1,251,154 72 4,334,057 \$	211,474 \$ 1,649,703 924,601 79 2,785,857 \$	211,474 \$ 659,013 242,932 19 1,113,438 \$	211,474 \$ 594,902 \$ 159,399 \$ <u>13 \$</u> 965,788 \$	10,514,290 12,870,784 7,000,074 <u>565</u> 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 \$	(771,834) \$	(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 \$	72,488,627

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

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McGae Workpaper 10a

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Dukë ENERGY CAROLINAS Noch Carolina Annuel I vel land Fuel Related Expensa 2.5% calculation test Tweive Months Edded December 31, 2017 Docket 5.7, Sub 1199													McG	McGae Workpaper 105
2017 System KWH Salet - Sch 4, Acjurted NC Retail KWH Salet - Sch 4 NC Retail % of Salet, Adjurted (Galc)		Jan17 1,537,708,015 4,974,781,160 66,00%	feb17 6,554,206,632 4,409,516,555 67.28%	Mar17 6,958,740,789 4,161,725,776 65,45%	Apri7 7,141,766,120 4,712,572,914 65,99%	May17 5,899,728,191 3,804,926,476 64,49%	June 17 7,386,187,606 4,858,493,561 63.78%	217 Jul 17 8,217 Jule 095 5,993 L64 464 65.63%	Aug17 8,246,356,880 5,434,256,910 65.90%	Sep17 7,636,553,967 5,082,625,773 66,56%	Oct17 6,672,440,753 4,373,336,154 65,54%	Nov17 6,414,671,902 4,193,859,450 65.38%	Dec17 7,061,789,900 4,613,039,595 65,32%	12 ME 85,127,483,884 56,012,288,688 65,80%
NC retail production plant % Fuel and fuel rehard component of purchased power		67.05%	67.09%	N60719	3660'29	%60°£9	67.09%	67.09%	67.09%	67.09%	67.09%	67,09%	%50°C9	67.09%
Svitem Actual \$- Sch 3 fuels: System Actual \$- Sch 3 fuel-related\$; Economic Purchases System Actual \$- Sch 3 fuel-related\$; Purchased Power for REPS Compilance System Actual\$- Sch 3 fuel-related\$; ACI DEAP System Actual\$- Sch 3 fuel-related\$; ACI DEAP System Actual\$- Sch 3 fuel-related\$; ACI DEAP	so a	14,477,669 2,015,378 2,453,055	\$ 16,876,907 1,988,183 2,550,377	\$ 10,096,048 \$ 1,425,655 3,307,695	8,192,583 \$ 946,815 4,043,976	9,721,355 1,094,013 3,816,768	\$ 10,071,142 { 1,076,835 4,301,618	\$ 12,026,892 1,880,095 4,300,868	\$ 14,840,029 \$ 2,503,480 4,332,085 (8,513) 2,942,527	18,993,838 \$ 1,906,962 3,902,317 242 242 2,459,473	17,656,690 \$ 2,121,832 9,805,061 225 2,447,053	22,489,529 \$ 2,815,382 3,655,861 208 2,584,629	25,927,577 \$ 3,654,363 \$ 2,991,972 \$ 147 \$ 2,150,732 \$	181, 370,259 29,426,608 49,461,653 (7,691) 12,884,414
Total System Economic & Qr\$		18,946,102	21,415,467	14,827,013	13,183,374	14,632,136	15,449,595	18,207,855	34,609,608	27,262,832	26,030,861	31,345,609 \$	<u>م</u>	260,635,243
<u>Less</u> Native Load Trantfert, Native Load Trantfer Benefit & DE - Progress fees	v	10,063,655	\$ 13,734,418	\$ 7,330,149 \$	\$ 568,895,8	7,828,909	\$ 6,973,202	1E0,E32,e \$	\$ 11,761,965 \$	17,022,958 \$	15,515,603 \$	18,675,689 \$	20,326,204 \$	144,615,679
Total System Economic \$ without Native Load Transfers	\$	8,882,447 \$	7,681,049 \$	7,496,854 \$	2,083,479	6,803,227 \$	8,476,393 \$	8,974,874 \$	12,847,642 \$	10,239,874 \$	10,515,258 \$	12,669,920 \$	14,338,587 \$	116,019,564
NC Actual \$ (Calc)	Ş	5,662,290 \$	5,167,630 \$	4,906,615 \$	4,674,111 \$	4,387,622 \$	5,575,614 \$	5,857,513 \$	B,466,452 \$	6,815,306 \$	6,892,044 \$	8,283,489 \$	9,405,725 \$	76,294,410
Billed rate (C/kWh);		0.1074	0.1074	0.1074	0.1074	01074	0.1074	0.1074	0.1074	D.0868	0.0868	0.0268	0.0868	
Billed 5:	Ś	5,343,741 \$	4,736,553 \$	4,470,385 \$	\$ '062,086 \$	4,087,123 \$	5,218,829 \$	\$ 153,154 \$	\$ 362'168'5	4,414,019 \$	3,798,034 \$	3,642,167 \$	4,006,205 \$	56,409,592
(Over)/ Under \$:	ŝ	518,549 \$	431,076 \$	436,230 \$	(387,975) \$	300,499 \$	356,785 \$	64,358 \$	2,629,158 \$	2,401,267 \$	3,094,010 \$	4,641,522 \$	5,399,519 \$	19,884,818
Opacity component of purchased power	1													
System Actual 5 - Capacity component of Cherokae County Cogen Purchaes System Actual 5 - Capacity component of Purchased Power for REPS Compliance System Actual 5 - Capacity component of H6569 Purps OF purchases	v	419,234 \$ 392,592	419,233 412,586	209,616 \$ 456,453	209,616 \$ 533,339	314,425 \$ 443,290	1,362,507 \$ 522,270	3,144,246 \$ 2,084,627	3,144,246 2,035,395 1,341,938	628,850 \$ 1,896,602 1,157,715	209,616 \$ 1,684,518 1,069,000	209,616 \$ 519,390 326,098	209,616 \$ 374,434 \$ 234,918 \$	10,480,821 11,955,496 4,139,669
system Actual 5 - Lapacity component of SC DERP System Actual 5 - Sch 2 pg 1 ANNUAL VIEW	l~	811,826 \$	\$ 619,55	666,069 \$	742,955 \$	\$ \$12'152	1,884,777 \$	5,228,873 \$		3,693,266 \$	101 2,963,235 \$	37 1,055,141 \$	22 \$	(4,251) 25,971,735
NC Actual \$ (Chic)	\$	544,694 \$	558,108 \$	446,B98 \$	498,465 \$	\$ 886,802	1,264,590 \$	3,508,308 \$	4,372,622 \$	2,477,994 \$	1,988,160 \$	707,946 \$	\$ 105,642	17,425,714
Blied rate (C/AWIN):		0.0204	0.0204	0.0204	0.0204	0.0204	0.0204	0,0204	0.0204	0.0241	0.0241	0.0241	0.0241	
Blied St	s	1,014,183 \$	\$ 546'868	84B,429 \$	960,728 \$	775,691 \$	990,475 \$	1,099,476 \$	1,107,854 \$	1,226,785 \$	1,055,585 \$	1,012,265 \$	2,113,442 \$	12,103,858
[Over]/Junder \$:	ŝ	(469,489) \$	(340,837) \$	\$ (165,104)	(462,243) \$	(267,302) \$	274,114 \$	2,408,832 \$	3,264,768 \$	1,251,209 \$	932,555 \$	\$ (616'YOE)	\$ (1%6(895)	5,321,856
TOTAL (Overly' Under \$:													ş	25,206,674

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DUKE ENERGY CAROLINAS

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

Line #	Description	Reference	NORTH CAROLINA	SOUTH	Retail TOTAL		ev 50
<u> </u>	Description	Nererence	CAROLINA	<u>CAROLINA</u>	<u>COMPANY</u>	<u>% NC</u>	<u>% SC</u>
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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McGee Workpaper 11

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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

			Total	NC	RETAIL	SC	RETAIL
Line			Company	% To		% To	
#	Description	REFERENCE	MWh	Total	MWh	Total	MWh
1	<u>Residential</u> Total Residential		(1,185,150)	76.60	(907,825)	23.40	(277,325)
2	<u>General Service</u> Total General Service		(790,151)	80.59	(636,783)	19.41	(153,368)
3	<u>Industrial</u> 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	(2,407,155)	_	(1,649,623)		(507,334)

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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

	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)	4 1 ,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)
ост	(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)

	TOTAL MWH		
2018	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
ост	(5,595)	10	Haywood
NOV	1,645	11	Piedmont
DEC	(16,590)	12	Rutherford
		13	Blue Ridge
Total	(250,198)	14	Greenwood

REVISED McGee Workpaper 12 Page 2

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(2,156,957)

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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

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Revised McGee Workpaper 13 Page 1

	Estimation		NC Proposed KWH ¹	SC Proposed KWH	Wholesale Proposed KWH	
<u>Line</u>	Method ¹	<u>Rate Schedule</u>	Adjustment	Adjustment	Adjustment	Total Company
1	Regression	Residential	188,586,837	68,285,920		
2 3						
4	Customer	General Service (excluding lighting):				
		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)2	(1,092,054)	1,005,314		
10	Regression	TS	(4,424)	(8,749)		
11		Total Lighting	(1,096,478)	9 96,565		
12						
13	•	Industrial:				
14	Customer	l - 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			,, . _ _	(,002)		
18						
19		Total	242,974,212	96,319,312	80,403,406 WP 13-2	419,696,930

Notes:

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

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

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

²T 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	Revised McGee Workpaper 13
North Carolina Annual Fuel and Fuel Related Expense	Page 2
Customer Growth Adjustment to kWh Sales-Wholesale	-
Twelve Months Ended December 31, 2018	
Docket E-7, Sub 1190	

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Calculation of Customer Growth Adjustment to KWH Sales - Wholesale

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Line <u>No</u>	-	<u>Reference</u>	
1	Total System Resale (kWh Sales)	Company Records	11,246,967,907
2	Less Intersystem Sales	Schedule 1	1,945,444,289
3	Total KWH Sales Excluding Intersystem Sales	L1 - L2	9,301,523,618
4	Residential Growth Factor	Line 8	0.8644
5	Adjustment to KWH's - Wholesale	L3 * L4 / 100	80,403,406
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

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DUKE ENERGY CAROLINAS North Carolina Annual Fuel and Fuel Related Expense Coal Inventory Rider True-up Calculation

Docket E-7, Sub 1190

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Line			2018	2	2018		2018	2018	2018	2019	
No.			 August	Seg	otember	_	October	November	December	January	Total to Date
1	Full Load Burn 35 day supply Beginning Actual tons on hand	Input	2,209,515		2,209,515		2,209,515				
2	(including Terminals and in-transit) - actual Ending Actual tons on hand	input	2,349,694		2,356,042		2,244,622				
Э	(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	14-11	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	ŝ	6,334,064				
8	Number of days supply Carrying cost percentage	L4 / 63,129 tons	37		36	5	36				
9	8/1/2018-12/31/2018 (a) (b)		0.745523%		0.745623%	i	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%		65.6244%	;	66.6244%				66.6244%
12	Total NC retail amount to recover	L10 * L11	\$ 52,149	\$	33,038	\$	31,465				\$ 116,653
13	NC Actual \$ Collected	Input	\$ 8,997	\$	24,938	\$	18,962 \$	17,250	11,647		
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	s	35	\$	26 \$	24 9	16		
16	Rider Excluding GRT & Reg Fee	L13 - L15	\$ 8,984	\$	24,903	\$	18,936 \$	17,225	11,631	\$ 33	
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 <u>Notes:</u>	L19*(1-CTR)/(1-FTR)	\$ 43,016	\$	8,107	\$	12,486 \$	(17,166) \$	(11,590)	\$ (33)	\$ 34,820
	(a) Carrying costs exclude gross receipts tax and regu	ulatory fee.									

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(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 INTÉREST INCOME	GROSS UP OF "AFTER-TAX RETURN ON DEFERRAL" TO PRETAX STATUS 0421.64	CUMULATIVE GROSS PRETAX RETURN
	Rate Case			0.236686			0.005691		0.763314	
	Rates 1/01/2018 - 12/31/18			0.236149			0.005692		0.763851	
	Rates 1/1/19 - current			0.233503	-		0.005697		0.766498	
BEGINNING BAL	1	0	0	0			0	0	Q	
			-							
	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	D	8,250	26,690	152	1,270	198	1,657
	Mar-19	٥	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	B,250	26,690	152	1,878	198	2.451
	Jui-19	0	34,940	0	8,250	26,690	152	2,030	198	2,649
	Aug-19	0	34,940		8,250	26,690	152	2,162	198	2,847
ENDING BALANCE		34,940	34,940	8,250	8,250	26,690	2,192	2,182	2,847	2,847

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Total Under-Collection 37,667

Secret Supplemental REVISED McGee Exhibit 1 I/A

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

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Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
	Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)					_
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
	Fuel and Fuel Related Cost Factors Required by Rule R8-55					
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
	Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%					
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

Second Supplements

Schedule 1 Page 1 of 3



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

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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		-
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	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			1,6 44, 3 45,221
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

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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

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales	Workpape r 7	21,397,068	23,381,644	12,939,28 5	57,717,997
<u>Calcula</u>	tion of Renewable and Cogeneration Purchased Power Capacity Rate by Class					Amount
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				14,874,084
4 5 6	Total of Renewable and QF Purchased Power Capacity NC Portion - Jursidicational % based on Production Plant Allocator NC Renewable and QF Purchased Power - Capacity	Line 2 + Line 3 Input Line 4 * Line 5				\$ 28,169,738 67.04% \$ 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>Summa</u>	ry of Total Rate by Class					
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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REVISED McGee Exhibit 2

Schedule 1

Page 2 of 3

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

Rate Class

REVISED McGee Exhibit 2 Schedule 1 Page 3 of 3

EMF) E-7, Sub 1163

F

McGee Exhibit 1

Current Total Fuel Rate Proposed Total Fuel

1.7983

1.9382

2.0233

(including Capacity and Rate (including Capacity

and EMF)

G

E + F = G

1.9501

2.0488

2.1023

Increase/(Decrease)

as % of Annual

Revenue at Current

Rates

D

C/B

1.49%

1.49%

1.49%

1.49%

Total Fuel Rate

increase/(Decrease)

Ë

If D=0 then 0 if not then

(C*100)/(A*1000)

0.1518

0.1106

0.0790

Allocate Fuel Costs

Increase/(Decrease) to

Customer Class

С

Line 25 as a % of Column B

32,481,139

25,867,199

10,220,642

68,568,980

Projected Billing Period Annual Revenue at

Current rates

в

Workpaper 8

1,738,716,194

687,001,167

21,397,068 \$ 2,183,285,633 \$

57,717,997 \$ 4,609,002,994 \$

MWh Sales

Α

Workpaper 7

23,381,644

12,939,285

	_
	0
	~
	-

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20 2

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Total Proposed Composite Fuel Rate:	

Line #

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4

1 Residential

Industrial

NC Retail

2 General Service/Lighting

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		57,717,99 7
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
	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		0.1188
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

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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 (\$)	2019
			D	E	D * E = F	Ň
1	Total Nuclear	Workpaper 1	58,459,031	0.6115	357,497,468	2
2	Coal	Calculated	19,611,529	3.1057	609,068,093	Jun
3	Gas CT and CC	Workpaper 3 & 4	20,821,617	2.4166	503,184,086	3
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			
		Line 1 + Line 5 + Line 8 +				
10	Total Generation	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)		(10,500,501)	
			(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
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	

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

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REVISED McGee Exhibit 2 Schedule 2 Page 2 of 3

1 1	NC Normalized Test Period MWh Sales					
		Exhibit 4	22,043,791	23,564,462	12,465,801	58,074,054
<u>Calculatio</u>	on of Renewable Purchased Power Capacity Rate by Class					Amount
2 F	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3 (QF Purchased Power - Capacity	Workpaper 4				14,874,084
4 T	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 28,169,738
5 N	NC Portion - Jursidicational % based on Production Plant Allocator	Input				67.04%
6 N	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 18,884,001
7 P	Production Plant Allocation Factors	Input	54.68%	31.06%	14.26%	100.00%
8 R	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
	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
Summary	<u>r of Total Rate by Class</u>					
10 Р	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 R	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0468	0.0249	0.0216	0.0325
	fotal adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.8273	1.9695	1.9070	1.9047
	MF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.1375	0.0927	0.2089	0.1346
	MF Interest (Decrement) cents/kWh	Exh 3 pg 2, 3, 4		-	-	-
15 N	Vet 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

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

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RÉVISED McGee Exhibit 2 Schedule 2 Page 3 of 3

Line #	· .	Rate Class	Normalized Test Period MWh Sales	Annual Revenue Current rates	Allocate Fuel Costs at 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	В	С	D	E	F	G
					Line 25 as a % of Column		If D=0 then 0 if not then		
			Exhibit 4	Workpaper 8	в	С/В	(C*100)/(A*1000)	McGee Exhibit 1	E+F≂G
1	Residential		22,043,7 91	\$ 2,183,285,63	3 \$ 36,697,928	1.68%	0.1665	1.7983	1.9648
2	General Service/Lighting		23,564,462	\$ 1,738,716,19	4 29,225,347	1.68%	0.1240	1.9382	
3	Industrial		12,465,801	\$ 687,001,16		1.68%	0.0926	2.0233	
4	NC Retail		58,074,054	\$ 4,609,002,99					2.2203

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	Líne 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 * L i ne 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

Jun 27 2019

Line #	Unit Reference		Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
1	Total Nuclear	Workpaper 2	D 56,739,499	E 0.6115	D * E = F 346,981,926
-			30,739,439	0,0115	340,301,920
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		
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	Line 9	98,347,563		1,484,978,251
′ 1 1	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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Jun 27 2019

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
<u>Calcula</u>	tion of Renewable Purchased Power Capacity Rate by Class					Amount
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 13,295,654
3	QF Purchased Power - Capacity	Workpaper 4				\$ 14,874,084
4 5 6	Total of Renewable and QF Purchased Power Capacity NC Portion - Jursidicational % based on Production Plant Allocator NC Renewable and QF Purchased Power - Capacity	Line 2 + Line 3 Input Line 4 * Line 5				\$ 28,169,738 67.04% \$ 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
Summa	ry of Total Rate by Class					
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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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 #	ı <u> </u>	Rate Class	Projected Billing Period MWh Sales		ual Revenue at urrent rates		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		в	с	C/8=D	Ę	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	2.1265
4	NC Retail		57,717,997	\$	4,609,002,994	\$ 89,693,767	-		2.02.05	1.1200

Total Proposed Composite Fuel Rate:

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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	Ś	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
	<u> Total Current Composite Fuel Rate - Docket E-7 Sub 1163:</u>			
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

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Alcord Aupplinanting Revised McGee Exhibit 3 Page 1 of 4

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

Line		Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(Reported Over)/ Under Recovery (d)
No.	Month		••	x -y		(-/
1	January 2018			5,733,820	\$	70,210,460
2	February			5,031,181	\$	(21,289,748)
3	March(1)		2	4,190,094	\$	4,767,793
4	April(1)		ż	4,416,566	\$	(13,736,437)
5	May			4,252,750	\$	6,136,829
6	June(1)		"F '	5,245,689	\$	6,622,242
7	July(1)	\$_~,×	N	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	а. — Р. — — — — — — — — — — — — — — — — —	at the second	4,314,713	\$	17,477,682
12	December		,* r .	4,892,732	\$	22,827,662
13	Total Test Period			59,480,703	\$	131,845,236
14	Adjustment to remove (Over) / Under Re	ecovery - January	- March 2018 ⁽²⁾		\$	53,688,503
15	Include Under Recovery related to Coal I	nventory Rider			\$	37,667
16	Adjusted (Over)/ Under Recovery				\$	78,194,400
17	NC Retail Normalized Test Period MWh S	ales		Exhibit 4		58,074, 054
18	Experience Modification Increment (Deci	rement) cents/kW	'n			0.1346

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

⁽²⁾ 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

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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
	Pa	ige 2 of 4

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Line	1	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWH Sales (c)	(0	Reported Over)/ Under Recovery (d)
#	Month			·		
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 ⁽¹⁾	1.8936	1.7919	1,546,024	\$	1,587,096
4	April ⁽¹⁾	1.5682	1.7919	1,557,073	\$	(3,469,659)
5	May	2.2261	1.7919	1,361,386	\$	5,910,833
6	June ⁽¹⁾	1.9042	1.7919	1,940,879	\$	2,162,126
7	July ⁽¹⁾ .	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 ⁽²⁾			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:

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

(2) 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

Jun 27 2019

Line		Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(0	Reported Over)/ Under Recovery (d)
#	Month					
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 ⁽¹⁾	2.0122	1.9253	1,709,988	\$	1,503,768
4	April ⁽¹⁾	1.5762	1.9253	1,819,014	\$	(6,335,002)
5	May	1.9140	1.9253	1,860,965	\$	(210,465)
6	June ⁽¹⁾	1.9786	1.9253	2,190,371	\$	1,145,088
7	July ⁽¹⁾	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 ⁽²⁾		\$ 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:

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

⁽²⁾ 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

Jun 27 2019

Line #	, Month	Fuel Cost incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	(0	Reported Over)/ Under Recovery (d)
	January 2018	4.6719	2.0207	000 640	~	
	•		2.0297	932,643	\$	24,642,348
2	February	1.75 15	2.0297	1,030,502	\$	(2,866,460)
3	March ⁽¹⁾	2.2081	2.0297	934,082	\$	1,6 76,929
4	April ⁽¹⁾	1.6509	2.0297	1,040,479	\$	(3,931,775)
5	May	2.0721	2.0297	1,030,399	\$	436,461
6	June ⁽¹⁾	2.3283	2.0297	1,114,438	\$	3,315,028
7	July ⁽¹⁾	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	Total Test Period			12,555,667	\$	49,485,928
14	Test Period Wtd Avg. ¢/kWh	2.3595	1.9661			

15	Adjustment to remove (Over) / Under Recovery - January - March	2018 ⁽²⁾	\$ 23,452,816	
16	Include Under Recovery related to Coal Inventory Rider		\$ 7,951	
17	Adjusted (Over)/ Under Recovery		\$ 26,041,062	
18	NC Retail Normalized Test Period MWh Sales	Exhibit 4	12,465,801	
19	Experience Modification Increment (Decrement) cents/KWh		0.208 9	

Notes:

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

⁽²⁾ 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

Line #	Description	Reference	т	otal Company	N	lorth Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
		Exhibit 6 Schedule 1 (Line 4)							
1	Test Period MWh Sales (excluding inter system sales)	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 ۰ 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 OFFICIAL COPY

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

Jun 27 2019

	Rate Case		
	Docket E-7,	Fuel Docket E-7,	Proposed Capacity
Unit	Sub 1146	Sub 1163	Rating MW
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 Supplementation Revised McGee Exhibit 6

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DECEMBER 2018 MONTHLY FUEL FILING

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DUKE ENERGY CAROLINAS SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1161

Line <u>No.</u>		December 2018	12 Months Ended
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	<u>1,945,</u> 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		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 0501222-0501223 biomass/test fuel consumed	\$ 46,847,568 -	\$ 675,888,074
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	48,664,815	691,762,314
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	39,975,582	507,195,879
Paganta	<u> </u>	
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents) Total Reagents	1,549,134	27,110,200
iotal heagents	1,549,134	27,110,200
By-products		
Net proceeds from sale of by-products	583,525	6,085,203
Total By-products	583,525	6,085,203
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	60,652,477	465,066,157
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	7,037,817	87,262,235
	.,,.	0,100,000
Total Fuel and Fuel-related Costs	\$ 167,457,560	\$ 1,885,269,344

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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Jun 27 2019

Revised McGee Exhibit 6 Schedule 3 - Purchases Page 1 of 4

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

Purchased Power		- Total		Capacity		Non-cap				
Economic		\$		s	mWh	- Fuel \$	-	d-related \$	Not Fuel \$ Not Fuel-related \$	
Cherokee County Cogeneration Partners		1,287,426	\$	211,474	27,369	· · ·		129,545		
City of Kings Mountain	•	8,979	•	8,979	-	• • • • • • • • • • • • • • • • • • • •	-			
DE Progress - Native Load Transfer		27,945,591		• •	741,793	23,410,60	1	4,543,696	\$ (8,706)	
DE Progress - Native Load Transfer Benefit		1,156,134		-	•	1,156,13	4		•	
DE Progress - Fees		(156,964)		-	-	• • • • • •	-	(156,964)		
Haywood Electric - Economic		40,903		20,630	336	12,36	7	7,906		
Macquarie Energy, LLC		6,826,931		-	146,439	4,164,42	3	2,662,503		
NCEMC - Economic		115,200		-	3,600	70.27		44,928		
NCMPA Instantaneous - Economic		1,813,810		-	53,310	1,088,46	7	725.343		
NTE Carolinas LLC		3,232,610		-	78.830	1,971,89	2	1.260,718		
Piedmont Municipal Power Agency		307,201		-	10,960	184,35	5	122,846		
PJM Interconnection, LLC.		11,214,935		-	313,334	6.841.11		4.373.825		
Southern Company Services, Inc.		250,370		-	9,167	152,72	6	97,644		
Tennesse Valley Authority		95,400		-	2,600	58,80		37,596		
Town of Dallas		584		584	· -		-	-		
Town of Forest City		19,856		19,856	-		-	-		
	\$	54,159,966	\$	261,523	1,387,738	\$ 40,057,56	3\$	13,849,586	\$ (8,706)	
Renewable Energy										
REPS	\$	4,406,020	\$	594,902	77,027	\$-	\$	3,811,118	\$-	
DERP - Purchased Power		149		13	3		-	136		
	\$	4,406,169	\$	594,915	77,030	\$	- \$	3,811,254	\$	
HB589 PURPA Purchases										
Qualifying Facilities	_	1,936,441		159,399	37,040			1,712,356	64,686	
		1,936,441	\$	159,399	37,040	5	- \$	1,712,356	\$ 64,686	
Non-dispatchable										
Blue Ridge Electric Membership Corp.	\$	1,244,696	\$	724,668	26,268	\$ 317,217	7		\$ 202,811	
Haywood Electric		351,238		152,148	7,201	121,44	5		77,645	
Macquarie Energy, LLC		957,341		•	12,433	583,978	3		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	5		96,072	
Generation Imbalance		1,078,303		-	8,735	242,385	5		835,918	
Energy Imbalance - Purchases		(277,960)		-	(11,956)	(169,556	5)		(108,404)	
Energy Imbalance - Sales		(269,174)		-	-	(269,534	9		360	
Other Purchases		648		<u> </u>	19		-		648	
	\$	3,837,654	\$	1,227,640	55,714	\$1,070,995	i <u>\$</u>	-	\$ 1,539,019	
Total Purchased Power	\$	64,340,230	\$	2,243,477	1,557,522	\$ 41,128,558	8\$	19,373,196	\$ <u>1,</u> 594,999	
Interchanges in										
Other Catawba Joint Owners	4	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		<u> </u>	623,044	5,100,063	3	<u>·</u>	2,936,651 (1)	
Interchanges Out										
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	5)	-	(3,405,670)	
Net Purchases and Interchange Power	\$	62,921,937	\$	2,109,268	1,439,725	\$ 40,313,493	\$	19,373,196	\$ 1,125,979	

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

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December 2018

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DECEMBER 2018

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

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	Total C			apacity	Non-capacity						
Sales		\$	<u> </u>	\$	mWh		Fuel \$	N	ion-fuel \$		
Utilities:											
SC Public Service Authority - Emergency	\$	19,312		-	475	\$	16,530	\$	2,782		
SC Electric & Gas - Emergency		22,373		-	383	·	21,699	·	674		
Market Based:											
NCMPA		110,344	\$	87,568	392		22,919		(143)		
PJM Interconnection, LLC.		69	-	-	-		-		69		
SC Electric & Gas		2,050		-	-		-		2,050		
Other:											
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)		
Total Intersystem Sales	\$	8,710,222	\$	87,568	228,210	\$	6,944,585	\$	1,678,069		

* Sales for resale other than native load priority.

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

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Revised McGee Exhibit 6 Schedule 3 - Purchases Page 3 of 4

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

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Twelve Months Ended December 2018

Purchased Power		Total		Capacity		Non-ca	apacity		
Economic		\$		\$	mWb	Fuel \$	Fuel-related \$		Not Fue! \$ Fuel-related \$
Cherokee County Cogeneration Partners City of Kings Mountain	\$	31,713,488 107,748	\$	10,514,290 107,748	536,248	\$ 18,602,696	\$ 2,596,502	2	
DE Progress - Native Load Transfer DE Progress - Native Load Transfer DE Progress - Native Load Transfer Benefit		194,410,960 13,751,828		107,748	5,426,920	- 174,475,494 13,751,828	19,671,245	5 \$	264,221
DE Progress - Fees		(1,093,167)		-	-		(1,093,167	')	
EDF Trading North America, LLC.		76,115		-	3,005	46,430	29,685	i i	
Exelon Generation Company, LLC.		118,087			4,060	72,034			
Haywood Electric - Economic Macquarie Energy, LLC		487,779 29,508,026		251,870	5,097	143,904			
Morgan Stanley Capital Group		29,508,026			770,088 1,112	17,999,896 15,152			
NCEMC		169,200			5,490	103,212			
NCMPA		4,490,834			71,519	3,053,238			
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			
Piedmont Municipal Power Agency PJM Interconnection, LLC.		2,609,446		•	88,744	1,680,985			
Rainbow Energy Marketing Corporation		51,171,173 87,525		•	864,902 3,285	31,214,417 53,390	19,956,756		
South Carolina Electric & Gas Company		212,527			4,600	127,811	34,135 84,716		
Southern Company Services, Inc.		1,289,556			45,702	786,630	502,926		
Tennesse 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		238,272 354,035,331		238,272					
	->	334,033,331	\$	1,119,186	8,564,915	_\$277,523,485	\$ 65,128,437	\$	264,221
Renewable Energy									
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
	\$	63,023,671	\$	13,308,625	\$ 976,235	\$	\$ 49,679,460	\$	35,586
HB589 PURPA Purchases									
Qualifying Facilities		33,208,999		6.541.261	549,098		\$ 25,585,400	S	1,082,338
	\$	33,208,999		6,541,261		s -	\$ 25,585,400		1,082,338
Non-dispatchable		-							
					<u> </u>				<u> </u>
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 NTE Carolinas LLC		245,400 1,828,310		-	2,610 36,865	149,694			95,706
Piedmont Electric Membership Corp.		7,179,987		3,902,138	140,568	1,115,269 1,999,488			713,041 1,278,361
South Carolina Electric & Gas Company		131,734		0,002,100	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 Other Purchases		(1,765,005)				(6,529,253)			4,764,248
Other Pulchases	\$	12,518 54,692,482	\$	14,027,057	<u>352</u> 1,026,152	\$ 18,941,336	\$ -	\$	12,518
	<u> </u>	01,002,102	<u> </u>	14,021,001	1,020,132	4 10,541,000	÷ -		21,124,005
Total Purchased Power	\$	504,960,483	\$	44,996,131	11,116,400	\$ 296,464,821	\$ <u>14</u> 0,393,297	\$	23,106,234
Interchanges In									•
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		<u> </u>	7,914,116	63,573,032			35,288,195
Internhonnen Out		_							
Interchanges Out Other Catawba Joint Owners		(93,139,372)		(1,580,207)	77 704 640	(E7 840 6F0)			(00.040.000)
Catawba- Net Negative Generation		(231,152)		(1,300,207)	(7,784,646) (11,304)	(57,610,256) (180,241)			(33,948,909) (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)
			-						
Net Purchases and Interchange Power	\$	501,060,203	\$	43,415,924	10,907,125	\$ 294,316,648	\$ 140,393,297	\$	22,934,334

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

	 Total	-	 Capacity			N	on-capacity		
Sales	 \$	_	 \$		mWh		Fuel \$		Non-fuel \$
Utilities:									
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		=	Α	1,974		87,826		15,542
Market Based:									
Central Electric Power Cooperative, Inc.	2,793,800	В	2,793,800	в	-		-		-
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	Α	-	Α	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
Other:									
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)
Total Intersystem Sales	\$ 93,839,751	-	\$ 4,067,869		1,945,444	\$	86,336,253	\$	3,435,629

* Sales for resale other than native load priority.

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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 2 3	Actual System kWh sales DERP Net Metered kWh generation Adjusted System kWh sales	Input Input L1 + L2				7,490,426,895 10,412,429 7,500,839,324
4 5 6	N.C. Retail kWh sales NC kWh sales % of actual system kWh sales NC kWh sales % of adjusted system kWh sales	Input L4 T / L1 L4 T / L3	2,038,461,729	1,880,040,961	974,229,470	4,892,732,160 65.32% 65.23%
7	Approved fuel and fuel-related rates (¢/kWh) 7a Billed rates by class (¢/kWh) 7b Billed fuel expense	Input Annually L7a * L4 / 100	1.7003 \$34,659,965	1.8314 \$34,431,070	1.8020 \$17,555,615	<u>1.7709</u> \$86,646,650
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by 8a Docket E-7, Sub 1163 allocation factor 8b System incurred expense 8c Incurred base fuel and fuel-related expense 8d Incurred base fuel rates by class (¢/kWh)	class (¢/kWh) Input Input L8b *L6 *8a L8c / L4 * 100	35.64% \$38,786,219 1.9027	41.77% \$45,458,159 2.4179	22.59% \$24,577,446 2.5228	\$166,830,104 \$108,821,824 2.2242
9	Incurred renewable purchased power capacity rates by class (¢/kWh) 9a NC retail production plant % 9b Production plant allocation factors 9c System incurred expense 9d Incurred renewable capacity expense 9e Incurred renewable capacity rates by class (¢/kWh)	input Input Input L9a *L9b *9c (L9a *L9c) * L9b / L4 * 100	43.68% \$285,027 0.0140	37.64% \$245,590 0.0131	18.68% \$121,872 0.0125	67.56% 100.00% \$965,788 \$652,488 0.0133
10 11 12	Total incurred rates by class (¢/kWh) Difference in ¢/kWh (incurred - billed) (Over) / under recovery [See footnote]	L8d + L9e L7c - L10 (L4 * L11) / 100	1.9167 0.2164 \$4,411,281	2.4310 0.5996 \$11,272,678	2.5353 0.7333 \$7,143,703	2.2375 0.4666 \$22,827,662
13 14	Prior period adjustments Total (over) / under recovery [See footnote]	Input L12+L13	\$4,411,281	\$11,272,678	\$7,143,703	\$22,827,662
15 16 17	Total system incurred expense Less: Jurisdictional allocation adjustment(s) Total Fuel and Fuel-related Costs per Schedule 2	L8b + L9c Input L15 + L16			_	\$167,795,892 <u>338,332</u> \$167,457,560

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

			(Over)	/ Under Recovery		
	Year 2018	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:

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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.

СОРУ	ואר		0			61	0	Z 27	; U	Inr	b															R	evis
	Total 12 ME December 2018	\$657,498,215 48,634,501	384,692,206 98,161,049 8,633,545 7,66 906	31,201,085,721	324.71 1,358.88	392.80 343.97 410.58	358.68	\$675,868,074	41,704,735 384.642.206	98,161,049 8,633,545	3,466,205 370,839,248	\$1,583,385,062	315.40	1,604.54 392 80	343.97	410.56 1,603.31 61 43	166.78	2.98	17.94	3.85	4.60 11.48	0.62	214,294,473	2,599,178	28,537,792	2,102,763 216,190 603.676.564	949,363,782
`	Current Month	\$48,585,537 1,499,256	32,884,994 2,272,971 5,696,114	\$91,299,914	485.71 221.68	442.14 464.11	459,65	\$46,847,568	1,874,266	2,272,971 5,696,114		\$119,754,995	350.11	1,530,31	464.11	1,577,30	165.17	3.43	15.56	5.39 5.39	4.47	0.60	13,380,783	122,476	489,746	22,890 22,890 49.815.240	72,502,058
	Rockingham CT		\$1,899,682	\$1,839,682		457.22	457.22		•	\$1,899.682		\$1,899,682			457.22		457.22			5.09		5.09			415,485		415,485
	Oconee Nuclear										10,470,715	\$10,470,715				88 28	58.28					0.59				17.965.994	17,965,994
	Creak Creak	•	\$158,525	\$158,525		510.56	510.56		•	\$158,525		\$158,525		•	510.56		510,56		•	8.08		80,8		٠	31,049		31,049
	McGuire Nuclear										\$10,990,838	\$10,990,838				62 46	62.46				1	0.62				17,596,869	17,596,869
	Marshall Stearn	\$22,079,739		\$22,079,739	399.01		399.01	\$13,692,987	148,226			\$13,841,212	341.94	1,620.84			344.86	3.41	16.41			3.44	4,004,460	9,145			4,013,605
L	Lincoln CT	•	\$110,569	\$110,569		467.48	467.48		\$25,788	110,569		\$136,358		1,521,44	467.48		537.96	632.18	63.22	10.88	•	12.90		1,695	23,652		25,347
, DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DECEMBER 2018	Lee Steam/CT		104,195 909	\$105,103		532,70	532.60		25,472	\$104,195 909		\$130,575	•	12,245.96	532.70	•	654.77	1,287.30 -	128.73	5.57		9.16		208	19,560		19,942
, DUKE ENERGY ND FUEL RELAT DECEMBE	ec C		/CZ'8CB'9¢	\$6,858,257		455.27	455.27	•	56 858.257			\$6,858,257		455.27			455.27	ł	•••	<u>6</u>		3.19		1 506 493	724	<u>.</u>	1,506,423
FUELA	Dan River CC		280,526,514	\$13,284,725	•	442.08	450.90	•	\$12.923.682		361,043	\$13,284,725		442 DB		1,577.30	450.90	•	• • •	-	11.08	3.17		735 700 0	100'020'2	22,890	2,946,257
	Cliffside Steam - Dual Fuel	\$8,548,228 273,156	5,695,205	\$14,516,590	687.75 692.52	445.73	567.03	\$12,888,384	286,271	5,695,205		\$18,869,860	354.20	1,505.97	445 73	2.011	382.33	3.52	14.52		4,45	3.80	3,638,779	19,009	CFT 770 1	101,121	4,935,525
	Calawba Nuctear S										\$8,356,486	\$8,356,486				58.63	58.63				ť	0.59 0.59				14,252,377	14,252,377
	Buck CC			\$13,103,055		442,19	442,19		\$13.103.055			\$13,103,055		442.19		•	442.19	,		2	•	3.06		2 GG3 222			2,963,222
	Belews Creek Steam	\$17,907,637 1,082,966		\$18,990,604	555.02 172.99		492.94	\$19,525,109	1,219,227			\$20,744,336	352.99	1,487.41			369.55	3.41	15.65			3.57	5,531,427	81,970			5,613,397
	Allen Steam	\$49,933 143,133		\$193,066	d (c/MBTU) 1,321.84		1,782.98	\$ 741,089	163,523			\$904,613	359.55	1,564.97			417.71	kWh) 2.92	12.43			3.39	206,117	10,449			216,566
	Dascription	Cost of Fuel Purchased (\$) Coal Coll	6445 - CC 6485 - CT 6488 - Steam Bionar	Total	Average Cost of Fuel Purchased (cMBTU) Coat Oil	Gas-CC Gas-C1 Gas-Steam Bionse	Weighted Average	Cost of Fuel Burned (\$) Coal Coal	Oit - Steam/CT Gas - CC	Gas - CT Gas - Steam	Biogas Nuclear	Total	Average Cost of Fuel Burnea (Clarb 1 U) Coal	Oil - Steam/CT Gas - CC	Gas - CT Gas - Steam	Biogas Nuclear	Weighted Average	Average Cost of Generation (c/kWh) Coal Coal	OII - Steam/CT	Gas - CT	Gas - Steam Biogas	Nuccear Weighted Average	Burned MBTU's Coal	Oil - Steam/CT Gas - CC	Gas - CT -	Biogas Nuclear	Total

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DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DECEMBER 2018

Description	Allen	Belews Creek	Buck	Catawba	CliffsIde	Dan River	Lee	Lee	Lincoln	Marshall	McGuire	Mil) Creek	Occnee	Rockingham	Current Month	Total 12 ME Decembor 2018
	Steam	Steam	cc	Nuclear	Steam - Dual Fuel	cc	CC	Steam/CT	СТ	Steam	Nuclear	CT	Nuclear	CT		
Net Generation (mWh)																
Coal	25,397	573,052			366,421					401,855					1,366,724	22,653,740
OII - 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			1,961		37,330	42,178	2,550,671
Gas - Sleam Biogas					128,002			(465)							127,536	187,574
Nuclear 100%			•	4 450 300		3,259	•								3,259	30,204
Hydro (Total System)				1,420,722							1,778,199		1,782,248		4,981,169	59,936,028
Solar (Total System)															323,664	2,347,824
Total	26,712	580,843	428,198	1,420,722	496,394	419,416	214,977	1,425	1.057	403 750	1,778,199	1,961	1 700 040	07 330	5,768	130,018
1 Oddi	20,712	560,045	420,135	1,420,725	430,034	413,410	214,977	1,425	1,057	402,758	1,778,199	1,961	1,782,248	37,330	7,921,672	101,764,129
Cost of Reagents Consumed (\$)																
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
Total	\$59,175	\$475,081	\$14,280		489,751	\$8,043	\$11,630			\$492,656					\$1,550,615	\$27,193,652

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<u>Notes:</u> 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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-				FUEL AND FU	UEL RELATED	ENERGY CAR CONSUMPTIO	N AND INVENTORY	REPORT					
Description	Allen	Belews Creek Steam	Buck CC	Cliffside Steam - Dual Fuet	Dan River	Lee	Lee Steam/CT	Lincoln	Marshail Steam	Mill Creek CT	Rockingham CT	Current Month	Total 12 ME December 2018
oal Data:						00	Cicalin Of	01	otoun	01	0.		
Beginning balance	196,674	741,379		565,251			-		448,731			1,952,035	2,321,84
Tons received during period	-	221,261		95,812					262,988			580,061	8,353,36
Inventory adjustments	(16,000)	(91,871)		(46,501)			-		(41,785)			(196,158)	(171,51
Tons burned during period	8,841	221,660		146,683			-		158,816			536,000	8,703,76
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	24.6
Cost of ending inventory (\$/tan)	83.82	88.09		87.87			-		86.22			87.09	87.09
il Data:													
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	21,144,15
Miscellaneous adjustments	448	(35,415)	•	(11,633)	-	•	(9,425)	-	-	•	•	(57,379)	(352,29)
Galions burned during period	75,879	596,667		137,943	-	-	1,520	12,305	66,449	-	-	889,408	18,888,29
Ending balance	90,915	167,180	-	230,912	•	-	703,802	9,822,492	245,825	4,366,782	3,238,190	18,866,098	18,866,09
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
atural Gas Data:													
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	125,135,40
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													
ogas Data:													
Beginning balance													
MCF received during period			-		22,062	-						22,062	210,72
MCF burned during period			•		22,062	-						22,062	210,727
Ending balance													
mestone Data:													
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	41.10
												Otr Ending December 2018	Total 12 ME
nmonia Data:												Decentuel 2018	December 2018
Beginning balance		1,315										1,315	1,159
Tons received during period		901										901	4,71
Tons consumed during period		583										583	4,71 4,24
Ending balance		1,633										1,633	1,63
Cost of ending inventory (\$/ton)		620.44										620.44	1,63 620.4
													Scheduh

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

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STATION	ТҮРЕ	QUANTITY OF TONS DELIVERED	DELIVERED COST	DELIVERED COST PER TON		
ALLEN	SPOT	-	\$-	\$ -		
	CONTRACT	-	-	-		
	ADJUSTMENTS	<u> </u>	49,933			
	TOTAL	<u> </u>	49,933_			
BELEWS CREEK	SPOT	-	11,982	-		
	CONTRACT	221,261	17,706,037	80.02		
	ADJUSTMENTS	· -	189,618	-		
	TOTAL	221,261	17,907,637	80.93		
CLIFFSIDE	SPOT	<u> </u>				
	CONTRACT	95,812	7,221,379	- 75.37		
	ADJUSTMENTS		1,326,849			
	TOTAL	95,812_	8,548,228	89.22		
MARSHALL	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		
ALL PLANTS	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		

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DUKE ENERGY CAROLINAS ANALYSIS OF COAL QUALITY RECEIVED DECEMBER 2018

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

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DUKE ENERGY CAROLINAS ANALYSIS OF OIL PURCHASED DECEMBER 2018

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		ALLEN				
	<u> </u>	ALLEN	BEL	EWS CREEK	CI	IFFSIDE
VENDOR	Hi	ghTowers	Н	lighTowers	Hi	ghTowers
SPOT/CONTRACT	(Contract		Contract	(Contract
SULFUR CONTENT %		0		0		0
GALLONS RECEIVED		75,652		578,080		144,399
TOTAL DELIVERED COST	\$	143,133	\$	1,082,966	\$	273,156
DELIVERED COST/GALLON	\$	1.89	\$	1.87	\$	1.89
BTU/GALLON		138,000		138,000		138,000

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Duke Energy Carolinas Power Plant Performance Data Twelve Month Summary

		Duke Energy Carolinas wer Plant Performance I Twelve Month Summary	Data	Schedule 10 Page 1 of 8
Unit Name		January, 2018 - December, 201 Nuclear Units Capacity Rating (mW)	18 Capacity	Equivalent
Oconee 1	6,745,635	847	Factor (%) 90.91	Availability (%) 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	96.7 8
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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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

Unit Name	Net Generation (mWh)	Capacity Rating (mW)	Capacity Factor (%)	Equivalent Availability (%)
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.

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 (%
Conventional Hydroelectric Stations:			
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
Pumped Storage Hydroelectric Stations:			
Gross Generation			
Bad Creek	1,447,036	1,360.0	65.67
Jocassee	1,204,730	780.0	92.99
Energy for Pumping			
Bad Creek	-1,838,591		
Jocassee	-1,342,401		
Net Generation			
Bad Creek	-391,555		
Jocassee	-137,671		

Notes:

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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 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 201	8				
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 20	18				
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
Fotal		66,771			

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