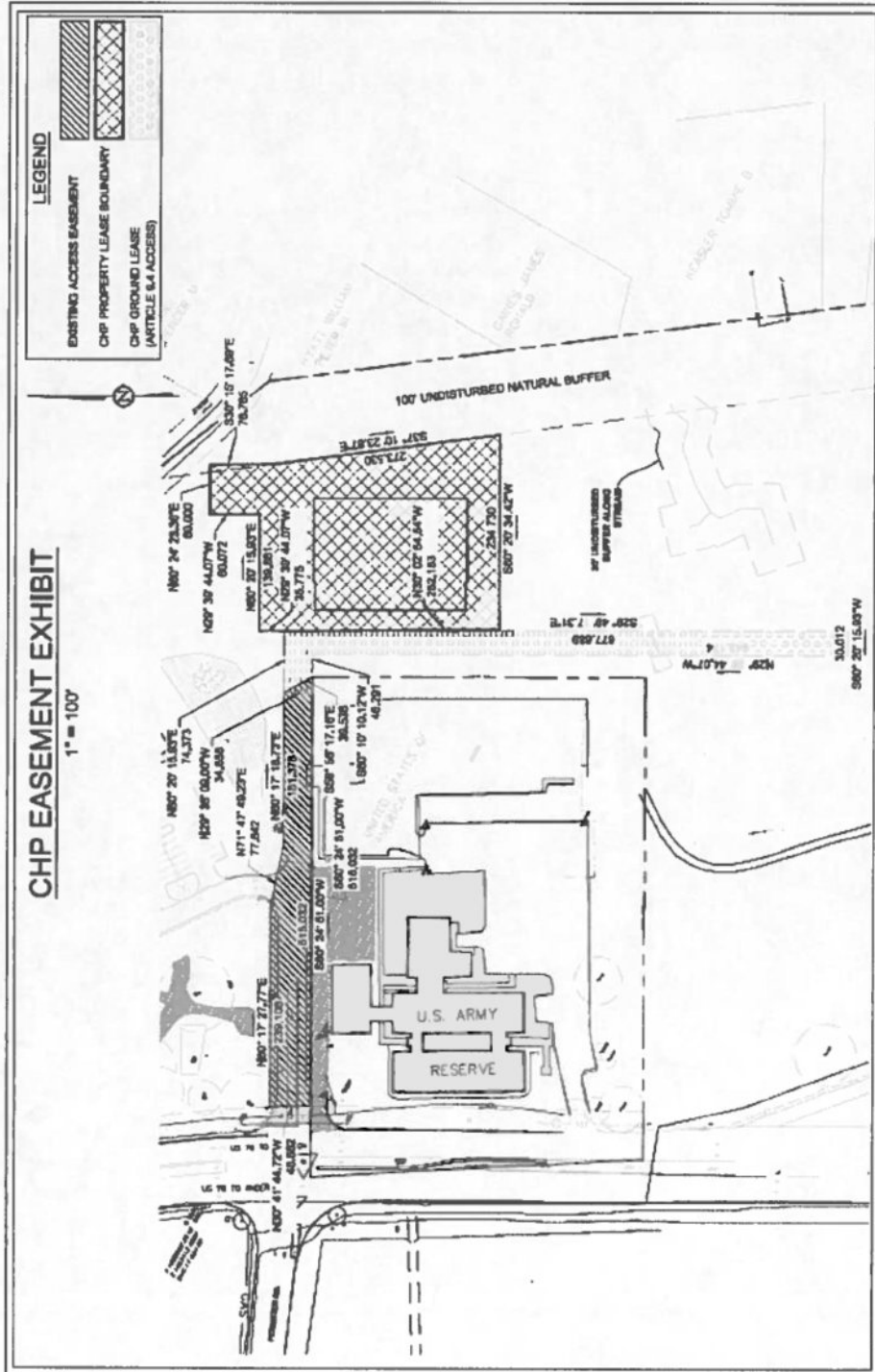


EXHIBIT A  
to Ground Lease

Location and Description of the Site



**EXHIBIT B**  
**to Ground Lease**

**Definitions**

1. "Affiliate" means, when used with reference to a specified Person, any other Person that directly, or indirectly through one or more intermediaries, controls, is controlled by or is under common control with the Person specified.
2. "Business Day" means any day other than Saturday or Sunday or a legal holiday observed by the State of South Carolina.
3. "Casualty" means any loss or destruction of or damages to the Facility or the Site resulting from any act of God, fire, explosion, earthquake, accident or the elements, whether or not covered by insurance and whether or not caused by the fault or negligence of either Party, or such Party's employees, agents, contractors, or visitors.
4. "Commercial Operation Date" means the date upon which Tenant notifies Landlord that the Facility is commercially operational.
5. "Development Period" means the period during which Tenant performs development activities, including but not limited to, obtaining permits and constructing the Facility, as more particularly defined in Section 2.1.1.
6. "Easements" has the meaning set forth in Section 5.
7. "Easement Areas" has the meaning set forth in Section 5.
8. "Effective Date" has the meaning set forth in the Preamble.
9. "Electrical Interconnection Easement" has the meaning set forth in Section 5.
10. "Energy Output" has the meaning set forth in Section 24.
11. "Environmental Attributes" has the meaning set forth in Section 24.
12. "Environmental Incentives" has the meaning set forth in Section 24.
13. "Environmental Laws" means any federal, state or local law, code, statute, ordinance, rule, regulation, rule of common law, guideline or informal policy position, relating to or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance or material; or any substances or mixture of any Hazardous Materials regulated thereunder, now or hereafter enacted or promulgated (collectively, and including, without limitation, any such laws which require notice of the use, presence, storage, generation, disposal or release of any Hazardous Materials to be provided to any party).
14. "Environmental Liability" means any action, lawsuit, claim or proceeding arising under or related in any way to the Environmental Laws or which seeks to impose liability for (a) noise; (b) pollution or contamination of the air, surface water, ground water or land or the clean-up of such pollution or contamination; (c) solid, gaseous or liquid waste generation, handling, treatment, storage, disposal or transportation; (d) exposure to or contamination by Hazardous Materials; (e) the safety or health of employees or (f) the manufacture, processing, distribution in commerce or use of Hazardous Materials. An "Environmental Liability" includes a common law action, whether direct or indirect, as well as a proceeding to issue, modify or terminate an Environmental Permit, or to adopt or amend a regulation to the extent that such a proceeding attempts to redress violations of an applicable permit, license, or regulation as alleged by any governmental authority.

15. "Environmental Permit" means any permit, license, approval or other authorization under any applicable Environmental Laws.

16. "Facility" means a combined heat and power facility or facilities and related utilities, improvements, equipment, facilities, appurtenances and other improvements to be developed, constructed, owned, operated and maintained on the Site and any applicable Easement Area(s), including but not limited to all structures, machinery, equipment, meters, fixtures, interconnections, ancillary equipment and materials, and all additions, alterations, expansions and modifications thereto as may be located on the Site and the Easement Areas.

17. "Financing Parties" has the meaning set forth in Section 17.

18. "Financing Documents" has the meaning set forth in Section 17.

19. "Force Majeure" means all events beyond the control of the Party affected, including without limitation flood, earthquake, storm, lightning, fire, explosion, war, riot, civil disturbances, strikes, and sabotage.

20. "Governmental Approvals" has the meaning set forth in Section 9.2(c).

21. "Ground Lease" has the meaning set forth in the Preamble.

22. "Hazardous Materials" means any flammable, reactive, explosive, corrosive or radioactive materials or hazardous, toxic or dangerous wastes, substances or related materials or any other chemicals, materials, wastes or substances, exposure to which is prohibited, limited or regulated by a federal, state, county, regional or local authority, or any Environmental Laws.

23. "Official Records" means the Official Records maintained by the office of the Register of Deeds of Pickens County, South Carolina.

24. "Operational Easements" has the meaning set forth in Section 5.

25. "Operational Term" means the period during which the Facility is generating and delivering Steam as such term(s) are defined in the SSPA, commencing upon the Commercial Operation Date for the Facility and terminating upon expiration or earlier termination as provided herein in Section 2.1.2.

26. "Landlord" has the meaning set forth in the Preamble.

27. "Landlord Easements" has the meaning set forth in Section 5.

28. "Landlord Events of Default" has the meaning set forth in Section 13.3.

29. "Landlord's Property" means all premises other than the Site and Easement Areas that are owned or leased by Landlord or its Affiliates and at which the Steam will be used or through which the Steam will be delivered.

30. "Landlord's Parties" means Landlord, its officers, directors, partners, members, affiliates, lenders, employees, shareholders, attorneys, lessees (other than Tenant), sublessees, licensees, invitees, contractors, subcontractors, consultants, agents, trustees and any of their respective successors and assigns.

31. "Landlord Utilities" has the meaning set forth in Section 5.

32. "Losses" has the meaning set forth in Section 12.1(a).

33. "Manual" has the meaning set forth in Section 9.2(b).

34. "OSE" has the meaning set forth in Section 9.2(b).

35. "Party" or "Parties" means Landlord and/or Tenant, as applicable.
36. "Permitted Exceptions" has the meaning set forth in Section 18.1.
37. "Person" means any individual, corporation, partnership, limited liability company, joint venture, association, joint stock company, trust, estate, unincorporated organization or other business entity, or any governmental authority.
38. "Release" means any release, pumping, pouring, emptying, injecting, escaping, leaching, dumping, seepage, spill, leak, flow, discharge, disposal or emission of a Hazardous Material whether on, under or migrating to or from the property of any Party.
39. "Site" means that certain land located in Pickens County, South Carolina, as more particularly shown and described on Exhibit A attached hereto.
40. "SSPA" means that certain Steam Supply and Purchase Agreement dated February 2, 2017 between Tenant, as "Seller", and Landlord, as "Buyer."
41. "State" has the meaning set forth in Section 10.1(b).
42. "Tenant" has the meaning set forth in the Preamble.
43. "Tenant Events of Default" has the meaning set forth in Section 13.1.
44. "Tenant's Force Majeure Notice" has the meaning set forth in Section 2.2.1.
45. "Tenant's Force Majeure Termination Notice" has the meaning set forth in Section 2.2.1.
46. "Tenant's Parties" means Tenant, its officers, directors, partners, members, affiliates, lenders, employees, shareholders, attorneys, lessees, sublessees, licensees, invitees, contractors, subcontractors, consultants, agents and any of their respective successors and assigns.
47. "Term" has the meaning set forth in Section 2.1.2.
48. "Title Policies" has the meaning set forth in Section 18.1.
49. "Transfer" means a transfer or conveyance of Landlord's interest in (i) the Site, (ii) the Easements and/or (iii) this Ground Lease.
50. "Utilities" means the services and related improvements, equipment and facilities necessary for the operation of the Facility, including, but not limited to, natural gas, electrical power, water, storm water, sanitary sewer, roads, telephone and telecommunication services, improvements, equipment and facilities.

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Summary Comparison of Fuel and Fuel Related Cost Factors  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 1

Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
<b><u>Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1250)</u></b>						
1	Approved Fuel and Fuel Related Costs Factors	Input	1.5337	1.6895	1.7243	1.6414
2	EMF Increment (Decrement) cents/kWh	Input	(0.0282)	0.0476	0.1391	0.0353
3	EMF Interest Increment (Decrement) cents/kWh	Input	(0.0041)	0.0000	0.0000	0.0000
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	<b>1.5014</b>	<b>1.7371</b>	<b>1.8634</b>	<b>1.6767</b>
<b><u>Fuel and Fuel Related Cost Factors Required by Rule R8-55</u></b>						
5	Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales	Exh 2 Sch 2 pg 2	<b>2.2947</b>	<b>2.3131</b>	<b>2.3050</b>	<b>2.3098</b>
6	NERC 5 Year Average Nuclear Capacity Factor of 92.07% and Projected Period Sales	Exh 2 Sch 3 pg 2	<b>2.3433</b>	<b>2.3438</b>	<b>2.3324</b>	<b>2.3467</b>
<b><u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 93.94%</u></b>						
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.8997	1.8326	1.8810	1.8746
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0318	0.0247	0.0201	0.0265
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	1.9315	1.8573	1.9011	1.9011
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.3785	0.4625	0.4128	0.4191
11	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	<b>2.3100</b>	<b>2.3198</b>	<b>2.3139</b>	<b>2.3202</b>

Note: Fuel factors exclude regulatory fee

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94%  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 2  
Schedule 1  
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	59,085,520	0.5773	341,071,825
2	Coal	Workpaper 3 & 4	9,117,091	3.2121	292,853,648
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9			9,519,806
5	Total Fossil	Sum	39,079,185		1,234,440,766
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		-
9	Solar Distributed Generation	Workpaper 3	364,048		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	100,098,166		1,575,512,591
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,848,200)		(85,734,604)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum Lines 10-13	84,373,966		1,455,111,088
15	Purchased Power	Workpaper 3 & 4	9,440,360	2.7656	261,085,798
16	JDA Savings Shared	Workpaper 5			20,748,035
17	Total Purchased Power		9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,814,326	1.8515	1,736,944,921
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)	3.3757	(66,325,343)
20	Line losses and Company use	Line 22-Line 18-Line 19	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,670,619,578
22	Projected System MWh Sales for Fuel Factor	Workpaper 7	87,956,972		87,956,972
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.8994

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94%  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes 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	22,809,193	23,222,537	12,202,704	58,234,434
<b>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</b>						Amount
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2020 Production Plant Allocator	Input				66.98%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,441,918
7	2020 Production Plant Allocation Factors	Input	47.00%	37.09%	15.90%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2020 Production Plant Allocator	Line 6 * Line 7	\$ 7,258,416	\$ 5,727,933	\$ 2,455,569	\$ 15,441,918
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0318	0.0247	0.0201	0.0265
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8997	1.8326	1.8810	1.8746
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0318	0.0247	0.0201	0.0265
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.9315	1.8573	1.9011	1.9011
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.3785	0.4625	0.4128	0.4191
14	EMF Interest Increment (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	2.3100	2.3198	2.3139	2.3202

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
 Proposed Nuclear Capacity Factor of 93.94%  
 Test Period Ended December 31, 2021  
 Billing Period September 2022 - August 2023  
 Docket E-7, Sub 1263

Sykes Exhibit 2  
 Schedule 1  
 Page 3 of 3

Line #	Rate Class	Projected Billing Period	Annual Revenue at	Allocate Fuel Costs	Increase/(Decrease)	Total Fuel Rate	Current Total Fuel Rate	Proposed Total Fuel
		MWh Sales	Current rates	Increase/(Decrease) to	as % of Annual	Increase/(Decrease)	(including Capacity and	Rate (including Capacity
		A	B	Customer Class	Revenue at Current	E	EMF) E-7, Sub 1250	and EMF)
		Workpaper 7	Workpaper 8	Line 25 as a % of Column B	Rates	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,809,193	\$ 2,259,696,240	\$ 184,438,368	8.16%	0.8086	1.5014	2.3100
2	General Service/Lighting	23,222,537	1,658,017,092	135,328,794	8.16%	0.5827	1.7371	2.3198
3	Industrial	12,202,704	673,497,148	54,971,422	8.16%	0.4505	1.8634	2.3139
4	NC Retail	58,234,434	\$ 4,591,210,481	\$ 374,738,584	8.16%			

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7	\$ 1,675,206,096	
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	23,055,563	
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,652,150,533	
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7	88,132,893	
9	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
10	Allocation %	Line 9 / Line 8	66.08%	
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,091,670,180	
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 1, Page 2	15,441,918	
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,107,112,098	
14	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9011	
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.4191	
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000	
18	Total Proposed Composite Fuel Rate	Sum	2.3202	

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414	
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353	
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000	
22	Total Current Composite Fuel Rate	Sum	1.6767	
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.6435	
24	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 374,738,583	

Note: Rounding differences may occur



Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes 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	59,085,520	0.5773	341,071,825
2	Coal	Calculated	8,436,719	3.2121	270,999,143
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9	-		9,519,806
5	Total Fossil	Sum	38,398,813		1,212,586,260
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		
9	Solar Distributed Generation	Workpaper 3	364,048		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	99,417,794		1,553,658,085
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,848,200)		(85,734,604)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum	83,693,594		1,433,256,582
15	Purchased Power	Workpaper 3 & 4	9,440,360		261,085,798
16	JDA Savings Shared	Workpaper 5	-		20,748,035
17	Total Purchased Power	Sum	9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,133,953		1,715,090,416
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)		(66,325,343)
20	Line losses and Company use	Line 22 - Line 19 - Line 18	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,648,765,072
22	Normalized Test Period MWh Sales	Exhibit 4	87,276,600		87,276,600
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.8891

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes 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	22,961,890	23,202,419	12,293,985	58,458,294
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2020 Production Plant Allocator	Input				66.98%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,441,918
7	2020 Production Plant Allocation Factors	Input	47.00%	37.09%	15.90%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2020 Production Plant Allocator	Line 6 * Line 7	\$ 7,258,416	\$ 5,727,933	\$ 2,455,569	\$ 15,441,918
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Normalized Test Period Sales	Line 8 / Line 1 / 10	0.0316	0.0247	0.0200	0.0264
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.8846	1.8259	1.8722	1.8643
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0316	0.0247	0.0200	0.0264
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.9162	1.8506	1.8922	1.8907
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.3785	0.4625	0.4128	0.4191
14	EMF Interest Increment (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	2.2947	2.3131	2.3050	2.3098

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 2  
Schedule 2  
Page 3 of 3

Line #	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/(Decrease) as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1250	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	D	E	F	G
		Exhibit 4	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,961,890	\$ 2,259,696,240	\$ 182,155,088	8.06%	0.7933	1.5014	2.2947
2	General Service/Lighting	23,202,419	\$ 1,658,017,092	133,653,473	8.06%	0.5760	1.7371	2.3131
3	Industrial	12,293,985	\$ 673,497,148	54,290,896	8.06%	0.4416	1.8634	2.3050
4	NC Retail	58,458,294	\$ 4,591,210,481	\$ 370,099,457				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7a	\$ 1,653,351,591					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	23,055,563					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,630,296,028					
8	Normalized Test Period System MWh Sales for Fuel Factor	Workpaper 7a	87,452,521					
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,458,294					
10	Allocation %	Line 9 / Line 8	66.85%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,089,852,895					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 2, Page 2	15,441,918					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,105,294,813					
14	NC Retail Normalized Test Period MWh Sales	Line 9	58,458,294					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.8907					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.4191					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.3098					

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414					
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353					
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.6767					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.6331					
24	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,458,294					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 370,099,457					

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
NERC 5 Year Average Nuclear Capacity Factor of 92.07% and Projected Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes 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	57,909,218	0.5773	334,281,608
2	Coal	Calculated	9,997,788	3.2121	321,142,864
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9	-		9,519,806
5	Total Fossil	Sum	39,959,882		1,262,729,982
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		
9	Solar Distributed Generation	Workpaper 3	364,048		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	99,802,561		1,597,011,590
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Calculated	(14,552,595)		(84,027,759)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum	84,373,966		1,478,316,932
15	Purchased Power	Workpaper 3 & 4	9,440,360		261,085,798
16	JDA Savings Shared	Workpaper 5	-		20,748,035
17	Total Purchased Power	Sum	9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,814,326		1,760,150,766
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)		(66,325,343)
20	Line losses and Company use	Line 22 - Line 19 - Line 18	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,693,825,422
22	Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,956,972		87,956,972
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.9257

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
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 92.07% and Projected Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes 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	22,809,193	23,222,537	12,202,704	58,234,434
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2020 Production Plant Allocator	Input				66.98%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,441,918
7	2020 Production Plant Allocation Factors	Input	47.00%	37.09%	15.90%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2020 Production Plant Allocator	Line 6 * Line 7	\$ 7,258,416	\$ 5,727,933	\$ 2,455,569	\$ 15,441,918
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0318	0.0247	0.0201	0.0265
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.9330	1.8566	1.8995	1.9011
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0318	0.0247	0.0201	0.0265
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.9648	1.8813	1.9196	1.9276
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.3785	0.4625	0.4128	0.4191
14	EMF Interest Increment (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	2.3433	2.3438	2.3324	2.3467

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
 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 92.07% and Projected Period Sales  
 Test Period Ended December 31, 2021  
 Billing Period September 2022 - August 2023  
 Docket E-7, Sub 1263

Line #	Rate Class	Projected Billing Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1250	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	C / B = D	E	F	G
		Workpaper 7b	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,809,193	\$ 2,259,696,240	\$ 192,033,732	8.50%	0.8419	1.5014	2.3433
2	General Service/Lighting	23,222,537	\$ 1,658,017,092	\$ 140,901,774	8.50%	0.6067	1.7371	2.3438
3	Industrial	12,202,704	\$ 673,497,148	\$ 57,235,202	8.50%	0.4690	1.8634	2.3324
4	NC Retail	58,234,434	\$ 4,591,210,481	\$ 390,170,708				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7b	\$ 1,698,411,934					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	23,055,563					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,675,356,371					
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7b	88,132,893					
9	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
10	Allocation %	Line 9 / Line 8	66.08%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,107,075,490					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 3, Page 2	15,441,918					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,122,517,408					
14	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9276					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.4191					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.3467					

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414					
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353					
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.6767					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.6700					
24	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 390,170,708					

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Proposed Composite  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 3  
Page 1 of 4

Line No.	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021			5,785,767	\$ 1,309,433	\$ -	\$ 1,309,433
2	February			4,705,197	\$ 24,172,571	\$ (1,105,173)	\$ 23,067,398
3	March <sup>(1)</sup>			4,216,102	\$ (1,280,088)	\$ -	\$ (1,280,088)
4	April			4,231,666	\$ (3,675,665)	\$ -	\$ (3,675,665)
5	May <sup>(1)</sup>			3,784,760	\$ 9,106,398	\$ -	\$ 9,106,398
6	June			4,813,118	\$ 15,273,578	\$ -	\$ 15,273,578
7	July			5,540,576	\$ 32,252,591	\$ -	\$ 32,252,591
8	August			5,890,179	\$ 37,907,835	\$ -	\$ 37,907,835
9	September			5,517,651	\$ 13,769,502	\$ -	\$ 13,769,502
10	October <sup>(1)</sup>			4,297,619	\$ 27,401,885	\$ -	\$ 27,401,885
11	November			4,396,624	\$ 64,806,647	\$ -	\$ 64,806,647
12	December			4,888,703	\$ 49,423,931	\$ -	\$ 49,423,931
13	<b>Total Test Period</b>			<b>58,067,962</b>	<b>\$ 270,468,622</b>	<b>\$ (1,105,173)</b>	<b>\$ 269,363,445</b>
14	<b>Adjustment to remove (Over)/Under Recovery - January-February 2021<sup>(2)</sup></b>				\$ 25,482,004	\$ (1,105,173)	\$ 24,376,831
15	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 244,986,614</b>
16	NC Retail Normalized Test Period MWh Sales					Exhibit 4	58,458,294
17	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.4191</b>

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 15.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Residential  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 3  
Page 2 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.4543	1.6027	2,427,681	\$ (3,602,217)	\$ -	\$ (3,602,217)
2	February	1.8056	1.6027	2,047,050	\$ 4,154,380	\$ (396,210)	\$ 3,758,170
3	March <sup>(1)</sup>	1.2642	1.6027	1,996,845	\$ (7,158,737)	\$ -	\$ (7,158,737)
4	April	1.5283	1.6027	1,585,020	\$ (1,178,659)	\$ -	\$ (1,178,659)
5	May <sup>(1)</sup>	2.0368	1.6027	1,288,098	\$ 5,643,932	\$ -	\$ 5,643,932
6	June	1.9547	1.6027	1,774,699	\$ 6,246,872	\$ -	\$ 6,246,872
7	July	2.1114	1.6027	2,146,583	\$ 10,918,699	\$ -	\$ 10,918,699
8	August	2.2422	1.6027	2,212,544	\$ 14,149,173	\$ -	\$ 14,149,173
9	September	1.7462	1.5655	2,129,356	\$ 3,848,250	\$ -	\$ 3,848,250
10	October <sup>(1)</sup>	2.3928	1.5337	1,481,929	\$ 11,889,253	\$ -	\$ 11,889,253
11	November	3.5580	1.5337	1,359,179	\$ 27,513,197	\$ -	\$ 27,513,197
12	December	2.2952	1.5337	1,975,540	\$ 15,044,028	\$ -	\$ 15,044,028
13	<b>Total Test Period</b>			<b>22,424,524</b>	<b>\$ 87,468,172</b>	<b>\$ (396,210)</b>	<b>\$ 87,071,961</b>
14	Test Period Wtd Avg. ¢/kWh	1.9797	1.5843				
15	Adjustment to remove (Over)/Under Recovery - January-February 2021 <sup>(2)</sup>				\$ 552,163	\$ (396,210)	\$ 155,953
16	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 86,916,008</b>
17	NC Retail Normalized Test Period MWh Sales				Exhibit 4		22,961,890
18	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.3785</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 16.

Rounding differences may occur



Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - GS/Lighting  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 3  
Page 3 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.8948	1.7583	2,224,452	\$ 3,036,294	\$ -	\$ 3,036,294
2	February	2.5796	1.7583	1,711,092	\$ 14,053,467	\$ (474,850)	\$ 13,578,617
3	March <sup>(1)</sup>	2.0380	1.7583	1,477,172	\$ 3,654,007	\$ -	\$ 3,654,007
4	April	1.6824	1.7583	1,719,557	\$ (1,305,025)	\$ -	\$ (1,305,025)
5	May <sup>(1)</sup>	1.8862	1.7583	1,656,907	\$ 2,072,505	\$ -	\$ 2,072,505
6	June	2.0391	1.7583	2,021,651	\$ 5,677,153	\$ -	\$ 5,677,153
7	July	2.3469	1.7583	2,284,951	\$ 13,448,970	\$ -	\$ 13,448,970
8	August	2.5564	1.7583	2,286,069	\$ 18,244,441	\$ -	\$ 18,244,441
9	September	1.9616	1.7212	2,297,610	\$ 5,524,126	\$ -	\$ 5,524,126
10	October <sup>(1)</sup>	2.1455	1.6895	2,004,794	\$ 8,129,521	\$ -	\$ 8,129,521
11	November	3.3527	1.6895	1,759,969	\$ 29,272,230	\$ -	\$ 29,272,230
12	December	2.8474	1.6895	1,952,172	\$ 22,604,847	\$ -	\$ 22,604,847
13	<b>Total Test Period</b>			<b>23,396,396</b>	<b>\$ 124,412,536</b>	<b>\$ (474,850)</b>	<b>\$ 123,937,686</b>
14	Test Period Wtd Avg. ¢/kWh	2.2762	1.7378				
15	Adjustment to remove (Over)/Under Recovery - January-February 2021 <sup>(2)</sup>				\$ 17,089,761	\$ (474,850)	\$ 16,614,911
16	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 107,322,775</b>
17	NC Retail Normalized Test Period MWh Sales				Exhibit 4		23,202,419
18	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.4625</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 16.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Industrial  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 3  
Page 4 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.8306	1.6652	1,133,633	\$ 1,875,356	\$ -	\$ 1,875,356
2	February	2.2950	1.6652	947,056	\$ 5,964,724	\$ (234,113)	\$ 5,730,612
3	March <sup>(1)</sup>	1.9967	1.6652	742,085	\$ 2,224,644	\$ -	\$ 2,224,644
4	April	1.5366	1.6652	927,089	\$ (1,191,979)	\$ -	\$ (1,191,979)
5	May <sup>(1)</sup>	1.8321	1.6652	839,755	\$ 1,389,961	\$ -	\$ 1,389,961
6	June	1.9946	1.6652	1,016,768	\$ 3,349,552	\$ -	\$ 3,349,552
7	July	2.3762	1.6652	1,109,043	\$ 7,884,922	\$ -	\$ 7,884,922
8	August	2.0615	1.6652	1,391,565	\$ 5,514,222	\$ -	\$ 5,514,222
9	September	2.1003	1.6971	1,090,684	\$ 4,397,125	\$ -	\$ 4,397,125
10	October <sup>(1)</sup>	2.6966	1.7243	810,897	\$ 7,383,110	\$ -	\$ 7,383,110
11	November	2.3522	1.7243	1,277,476	\$ 8,021,220	\$ -	\$ 8,021,220
12	December	2.9496	1.7243	960,991	\$ 11,775,057	\$ -	\$ 11,775,057
13	<b>Total Test Period</b>			<b>12,247,042</b>	<b>\$ 58,587,915</b>	<b>\$ (234,113)</b>	<b>\$ 58,353,802</b>
14	Test Period Wtd Avg. ¢/kWh	2.1672	1.6828				
15	Adjustment to remove (Over)/Under Recovery - January-March 2020 <sup>(2)</sup>				\$ 7,840,080	\$ (234,113)	\$ 7,605,968
16	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 50,747,835</b>
17	NC Retail Normalized Test Period MWh Sales				Exhibit 4		12,293,985
18	<b>Experience Modification Increment (Decrement) cents/KWh</b>						<b>0.4128</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 16.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Sales, Fuel Revenue, Fuel Expense and System Peak  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 4

Line #	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial	
1	Test Period MWh Sales (excluding inter system sales)	Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC Retail)	86,551,610	58,067,962	22,424,524	23,396,396	12,247,042	
2	Customer Growth MWh Adjustment	Workpaper 13 Pg 1	128,987	(23,093)	198,268	(239,223)	17,862	
3	Weather MWh Adjustment	Workpaper 12 Pg 1	596,003	413,425	339,099	45,245	29,081	
4	Total Normalized MWh Sales	Sum	87,276,600	58,458,294	22,961,890	23,202,419	12,293,985	
5	Test Period Fuel and Fuel Related Revenue *		\$ 1,449,831,492	\$ 967,961,388				
6	Test Period Fuel and Fuel Related Expense *		\$ 1,845,020,858	\$ 1,238,430,010				
7	Test Period Unadjusted (Over)/Under Recovery		\$ 395,189,366	\$ 270,468,622				
			<b>2020 Summer Coincidental Peak (CP) kW</b>					
8	Total System Peak		17,438,327					
9	NC Retail Peak		11,665,772					
10	NC Residential Peak		5,482,921					
11	NC General Service/Lighting Peak		4,326,963					
12	NC Industrial Peak		1,855,888					

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

Rounding differences may occur

**Duke Energy Carolinas, LLC**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Nuclear Capacity Ratings**  
**Test Period Ended December 31, 2021**  
**Billing Period September 2022 - August 2023**  
**Docket E-7, Sub 1263**

Unit	Rate Case		Proposed Capacity Rating MW
	Docket E-7, Sub 1214	Fuel Docket E-7, Sub 1250	
Oconee Unit 1	847.0	847.0	847.0
Oconee Unit 2	848.0	848.0	848.0
Oconee Unit 3	859.0	859.0	859.0
McGuire Unit 1	1,158.0	1,158.0	1,158.0
McGuire Unit 2	1,157.6	1,157.6	1,157.6
Catawba Unit 1	1,160.1	1,160.1	1,160.0
Catawba Unit 2	1,150.1	1,150.1	1,150.1
Total Company	7,179.8	7,179.8	7,179.7

I/A

Sykes Exhibit 6

**DECEMBER 2021 MONTHLY FUEL FILING**

**Sykes Exhibit 6**  
**Schedule 1**

DUKE ENERGY CAROLINAS  
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1248

Line No.	December 2021	12 Months Ended December 2021
1 Fuel and fuel-related costs	\$ 189,923,750	\$ 1,841,186,117
MWH sales:		
2 Total system sales	7,230,301	87,792,832
3 Less intersystem sales	48,877	1,241,222
4 Total sales less intersystem sales	<u>7,181,424</u>	<u>86,551,610</u>
5 Total fuel and fuel-related costs (¢/KWH) (line 1/line 4)	<u>2.6447</u>	<u>2.1273</u>
6 Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 7a Total)	<u>1.6334</u>	
Generation Mix (MWH):		
Fossil (by primary fuel type):		
7 Coal	285,789	13,569,695
8 Fuel Oil	2,720	53,988
9 Natural Gas - Combined Cycle	1,298,695	14,542,974
10 Natural Gas - Combined Heat and Power	9,589	15,739
11 Natural Gas - Combustion Turbine	61,155	1,131,529
12 Natural Gas - Steam	973,777	7,231,653
13 Biogas	1,215	21,502
14 Total fossil	<u>2,632,940</u>	<u>36,567,080</u>
15 Nuclear 100%	5,245,391	60,454,296
16 Hydro - Conventional	65,561	1,950,233
17 Hydro - Pumped storage	(77,236)	(610,077)
18 Total hydro	<u>(11,675)</u>	<u>1,340,156</u>
19 Solar Distributed Generation	15,972	293,289
20 Total MWH generation	7,882,628	98,654,821
21 Less joint owners' portion - Nuclear	1,413,367	15,008,712
22 Less joint owners' portion - Combined Cycle	70,455	744,961
23 Adjusted total MWH generation	<u>6,398,806</u>	<u>82,901,148</u>

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

**Sykes Exhibit 6  
Schedule 2**

**DUKE ENERGY CAROLINAS  
DETAILS OF FUEL AND FUEL-RELATED COSTS**

Docket No. E-7, Sub 1248

	<u>December 2021</u>	<u>12 Months Ended December 2021</u>
Fuel and fuel-related costs:		
0501110 coal consumed - steam	\$ 9,829,322	\$ 428,535,150
0501310 fuel oil consumed - steam	86,054	1,264,107
0501330 fuel oil light-off - steam	10,457	1,119,252
Total Steam Generation - Account 501	<u>9,925,833</u>	<u>430,918,509</u>
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	21,591,353	259,578,561
Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	4,412,048	49,551,008
0547100 - Combustion Turbine - credit for inefficient fuel cost	(126,494)	(1,524,868)
0547100 natural gas consumed - Steam	61,810,549	331,328,622
0547101 natural gas consumed - Combined Cycle	54,245,577	392,828,920
0547101 natural gas consumed - Combined Heat and Power	817,949	1,710,128
0547106 biogas consumed - Combined Cycle	65,711	1,161,456
0547200 fuel oil consumed - Combustion Turbine	225,631	6,445,339
Total Other Generation - Account 547	<u>121,450,971</u>	<u>781,500,605</u>
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	851,596	18,393,982
Total Reagents	<u>851,596</u>	<u>18,393,982</u>
By-products		
Net proceeds from sale of by-products	905,813	6,884,190
Total By-products	<u>905,813</u>	<u>6,884,190</u>
Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	154,725,566	1,497,275,847
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	215,310	10,765,481
Capacity component of purchased power (renewables)	662,095	16,335,530
Capacity component of purchased power (PURPA)	281,956	8,934,137
Fuel and fuel-related component of purchased power	36,195,486	353,899,479
Total Purchased Power and Net Interchange - Account 555	<u>37,354,847</u>	<u>389,934,627</u>
Less:		
Fuel and fuel-related costs recovered through intersystem sales	2,010,944	44,191,701
Fuel in loss compensation	138,819	1,368,818
Solar Integration Charge	(2,826)	(2,826)
Lincoln CT marginal fuel revenue	39,124	246,896
Miscellaneous Fees Collected	(29,400)	219,768
Total Fuel Credits - Accounts 447 /456	<u>2,156,661</u>	<u>46,024,357</u>
Total Fuel and Fuel-related Costs	<u>\$ 189,923,750</u>	<u>\$ 1,841,186,117</u>

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

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

DEC 2021

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Economic	\$	\$				
Carolina Power Partners, LLC	\$ 573,300	-	11,400	\$ 349,713	\$ 223,587	
Cherokee County Cogeneration Partners	1,980,350	\$ 215,310	32,635	1,605,083	159,957	
DE Progress - Native Load Transfer	20,239,048	-	573,789	19,367,526	861,570	\$ 9,952
DE Progress - Native Load Transfer Benefit	3,261,712	-	-	3,261,712	-	
Haywood Electric - Economic	38,342	19,790	332	11,317	7,235	
Macquarie Energy, LLC	357,584	-	7,413	218,126	139,458	
NCMPA - Economic	335,160	-	9,120	204,448	130,712	
Piedmont Municipal Power Agency	710,145	-	21,612	417,565	292,580	
PJM Interconnection, LLC.	12,874	-	300	7,853	5,021	
Town of Dallas	584	584	-	-	-	
Town of Forest City	19,856	19,856	-	-	-	
	<b>\$ 28,978,259</b>	<b>\$ 255,540</b>	<b>698,740</b>	<b>\$ 26,295,173</b>	<b>\$ 2,417,594</b>	<b>\$ 9,952</b>
<b>Renewable Energy</b>						
REPS	\$ 5,049,069	\$ 642,188	91,397	\$ -	\$ 4,406,882	
DERP - Purchased Power	304,103	19,907	5,264	-	205,494	78,703
DERP - Net Metered Generation	553	-	20	-	-	553
	<b>\$ 5,353,725</b>	<b>\$ 662,095</b>	<b>96,682</b>	<b>\$ -</b>	<b>\$ 4,612,376</b>	<b>\$ 79,256</b>
<b>HB589 PURPA Purchases</b>						
CPRE - Purchased Power	(20,000)	-	-	-	-	(20,000)
Qualifying Facilities	2,710,938	281,956	49,804	-	2,343,504	85,478
	<b>\$ 2,690,938</b>	<b>\$ 281,956</b>	<b>49,804</b>	<b>\$ -</b>	<b>\$ 2,343,504</b>	<b>\$ 65,478</b>
<b>Non-dispatchable / Other</b>						
Blue Ridge Electric Membership Corp.	1,100,555	\$ 617,591	25,631	294,608	-	188,356
Haywood Electric	202,825	104,398	4,343	60,040	-	38,386
Macquarie Energy, LLC	60,500	-	1,100	36,905	-	23,595
NCEMC - Other	3,133	3,133	-	-	-	-
Piedmont Electric Membership Corp.	523,997	293,984	11,904	140,308	-	89,705
Generation Imbalance	683,926	-	20,622	412,075	-	271,851
Energy Imbalance - Purchases	63,494	-	6,933	32,476	-	31,018
Energy Imbalance - Sales	306,460	-	-	(49,070)	-	355,530
Other Purchases	717	-	28	-	-	717
	<b>\$ 2,945,607</b>	<b>\$ 1,019,107</b>	<b>70,561</b>	<b>\$ 927,342</b>	<b>\$ -</b>	<b>\$ 999,158</b>
	-	-	-	-	-	-
<b>Total Purchased Power</b>	<b>\$ 39,968,528</b>	<b>\$ 2,218,697</b>	<b>915,787</b>	<b>\$ 27,222,515</b>	<b>\$ 9,373,473</b>	<b>\$ 1,153,843</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	7,311,950	-	710,249	4,176,265	-	3,135,685
WS Lee Joint Owner	1,557,572	-	29,613	1,437,844	-	119,728
Total Interchanges In	8,869,522	-	739,862	5,614,110	-	3,255,412
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(7,168,642)	(134,209)	(693,456)	(4,077,519)	-	(2,956,913)
Catawba- Net Negative Generation	-	-	-	-	-	-
WS Lee Joint Owner	(2,094,784)	-	(40,405)	(1,937,093)	-	(157,691)
Total Interchanges Out	(9,263,426)	(134,209)	(733,861)	(6,014,612)	-	(3,114,604)
<b>Net Purchases and Interchange Power</b>	<b>\$ 39,574,624</b>	<b>\$ 2,084,488</b>	<b>921,788</b>	<b>\$ 26,822,013</b>	<b>\$ 9,373,473</b>	<b>\$ 1,294,651</b>

NOTE: Detail amounts may not add to totals shown due to rounding.  
CPRE purchased power amounts are recovered through the CPRE Rider.



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

<b>DEC 2021</b>
-----------------

Sykes Exhibit 6  
Schedule 3 - Sales  
Page 2 of 5

Sales	Total \$	Capacity \$	Non-capacity		
			mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	-	-	-	-	-
<b>Market Based:</b>					
Central Electric Power Cooperative, Inc.	-	\$ -	-	-	-
Macquarie Energy, LLC	46,500	-	1,400	36,695	9,805
NCMPA	91,919	87,500	81	5,027	(608)
PJM Interconnection, LLC.	-	-	-	-	-
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	274,561	-	-	274,561	-
DE Progress - Native Load Transfer	1,685,438	-	45,652	1,658,000	27,439
Generation Imbalance	42,056	-	1,744	36,660	5,396
<b>Total Intersystem Sales</b>	<b>\$ 2,139,006</b>	<b>\$ 87,500</b>	<b>48,877</b>	<b>\$ 2,010,944</b>	<b>\$ 40,562</b>

\* Sales for resale other than native load priority.

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

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

**Twelve Months Ended  
DEC 2021**

Sykes Exhibit 6  
Schedule 3 - Purchases  
Page 3 of 5

Purchased Power	Total	Capacity	Non-capacity				
			Economic	\$	mWh	Fuel \$	Fuel-related \$
Carolina Power Partners, LLC	\$ 1,787,160	-		42,160	\$ 1,090,168	\$ 696,992	
Cherokee County Cogeneration Partners	25,303,689	\$ 10,765,481		370,824	12,687,649	1,850,559	
Cube Yadkin Generation LLC	606,505	-		37,958	369,968	236,537	
DE Progress - Native Load Transfer	185,028,516	-		5,779,506	174,196,837	10,756,889	\$ 74,790
DE Progress - Native Load Transfer (Prior Period Adjust)	-	-		-	-	-	
DE Progress - Native Load Transfer Benefit	21,186,870	-		-	21,186,870	-	
DE Progress - Fees	3,126	-		-	-	3,126	
EDF Trading North America, LLC.	-	-		-	-	-	
Exelon Generation Company, LLC.	311,275	-		4,945	189,878	121,397	
Florida Power & Light Company	-	-		-	-	-	
Haywood Electric - Economic	337,984	235,484		1,819	62,525	39,975	
Macquarie Energy, LLC	4,176,326	-		90,110	2,547,559	1,628,767	
NCEMC	-	-		-	-	-	
NCMPA	1,794,926	-		48,595	1,050,744	744,183	
NCMPA Load Following Economic	12,832,732	-		405,883	7,389,860	5,442,872	
Piedmont Municipal Power Agency	3,474,337	-		120,036	2,007,947	1,466,390	
PJM Interconnection, LLC.	189,850	-		5,700	115,809	74,042	
South Carolina Electric & Gas Company / Dominion Energy	152,750	-		3,550	92,690	60,061	
Southern Company Services, Inc.	706,464	-		20,793	430,943	275,521	
Tennessee Valley Authority	280,504	-		7,231	171,107	109,397	
The Energy Authority	69,600	-		2,400	42,456	27,144	
Town of Dallas	7,008	7,008		-	-	-	
Town of Forest City	238,272	238,272		-	-	-	
	<b>\$ 258,487,895</b>	<b>\$ 11,246,246</b>		<b>6,941,510</b>	<b>\$ 223,633,007</b>	<b>\$ 23,533,853</b>	<b>\$ 74,790</b>
<b>Renewable Energy</b>							
REPS	\$ 73,398,098	\$ 16,092,597		1,192,575	\$ -	\$ 57,305,502	\$ -
DERP - Purchased Power	3,789,475	242,933		65,917	-	2,583,689	962,853
DERP - Net Metered Generation	52,349	(56)		1,943	-	-	52,406
	<b>\$ 77,239,922</b>	<b>\$ 16,335,474</b>		<b>1,260,435</b>	<b>\$ -</b>	<b>\$ 59,889,191</b>	<b>\$ 1,015,259</b>
<b>HB589 PURPA Purchases</b>							
CPRE - Purchased Power	\$ (70,000)	\$ -		-	-	-	\$ (70,000)
Qualifying Facilities	43,116,103	8,934,138		714,046	\$ -	\$ 33,167,413	1,014,555
	<b>\$ 43,046,103</b>	<b>\$ 8,934,138</b>		<b>714,046</b>	<b>\$ -</b>	<b>\$ 33,167,413</b>	<b>\$ 944,555</b>

<b>Non-dispatchable / Other</b>							
Blue Ridge Electric Membership Corp.	13,391,449	7,266,227	299,086	3,736,386		2,388,837	
Carolina Power Partners, LLC	1,101,300	-	26,310	671,793		429,507	
DE Progress - As Available Capacity	302,530	302,530	-	-		-	
Exelon Generation Company, LLC.	131,200	-	1,600	80,032		51,168	
Haywood Electric	2,619,594	1,317,250	55,640	794,430		507,914	
Macquarie Energy, LLC	10,866,055	-	182,317	6,628,294		4,237,761	
NCEMC - Other	724,944	30,315	8,941	423,724		270,905	
NCMPA - Reliability	316,144	-	3,496	192,848		123,296	
Piedmont Electric Membership Corp.	6,410,149	3,460,962	140,160	1,799,004		1,150,182	
Southern Company Services, Inc.	541,806	-	6,886	330,502		211,304	
Generation Imbalance	2,987,298		75,257	1,636,681		1,350,617	
Energy Imbalance - Purchases	1,644,938		(77,146)	1,358,681		286,257	
Energy Imbalance - Sales	(4,528,599)		-	(4,307,002)		(221,597)	
Other Purchases	6,183	-	228	-		6,183	
	<b>\$ 36,514,991</b>	<b>\$ 12,377,283</b>	<b>722,775</b>	<b>\$ 13,345,372</b>	<b>\$ -</b>	<b>\$ 10,792,336</b>	
<b>Total Purchased Power</b>	<b>\$ 415,288,911</b>	<b>\$ 48,893,141</b>	<b>9,638,766</b>	<b>\$ 236,978,379</b>	<b>\$ 116,590,457</b>	<b>\$ 12,826,940</b>	(6)
<b>Interchanges In</b>							
Other Catawba Joint Owners	71,832,695	-	7,544,326	42,400,464		29,432,231	
WS Lee Joint Owner	15,839,014	-	462,339	13,941,298		1,897,716	
Total Interchanges In	87,671,709	-	8,006,664	56,341,761		31,329,947	
<b>Interchanges Out</b>							
Other Catawba Joint Owners	(74,348,518)	(1,580,207)	(7,701,093)	(43,504,130)		(29,264,180)	
Catawba- Net Negative Generation	(258,387)	-	(13,290)	(214,466)		(43,921)	
WS Lee Joint Owner	(14,126,778)	-	(402,026)	(12,292,521)		(1,834,257)	
Total Interchanges Out	(88,733,683)	(1,580,207)	(8,116,409)	(56,011,117)		(31,142,358)	
<b>Net Purchases and Interchange Power</b>	<b>\$ 414,226,937</b>	<b>\$ 47,312,934</b>	<b>9,529,021</b>	<b>\$ 237,309,023</b>	<b>\$ 116,590,457</b>	<b>\$ 13,014,529</b>	

NOTES: Detail amounts may not add to totals shown due to rounding.  
CPRE purchased power amounts are recovered through the CPRE Rider.

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

**Twelve Months Ended  
DEC 2021**

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	506,304	-	5,909	429,565	76,740
SC Electric & Gas / Dominion Energy - Emergency	49,990	-	1,091	52,118	(2,128)
<b>Market Based:</b>					
Carolina Power Partners, LLC	134,880	-	2,780	109,765	25,115
Central Electric Power Cooperative, Inc.	4,590,375	\$ 4,809,001	(5,516)	(209,410)	(9,216)
Macquarie Energy, LLC	3,477,999	-	97,200	3,350,868	127,130
NCMPA	1,376,522	1,050,000	6,271	337,204	(10,682)
PJM Interconnection, LLC.	219,886	-	8,198	207,112	12,773
SC Electric & Gas / Dominion Energy	191,976	-	3,925	151,852	40,123
Southern Company	18,750	-	1,250	22,085	(3,335)
Tennessee Valley Authority	1,800	-	50	1,674	126
The Energy Authority	246,025	-	3,875	211,674	34,351
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	5,711,116	-	-	5,711,116	-
DE Progress - Native Load Transfer	35,200,938	-	1,094,952	33,084,586	2,116,352
Generation Imbalance	740,062	-	21,237	731,493	8,569
BPM Transmission	(635,177)	-	-	-	(635,177)
<b>Total Intersystem Sales</b>	<b>\$ 51,831,446</b>	<b>\$ 5,859,001</b>	<b>1,241,222</b>	<b>\$ 44,191,701</b>	<b>\$ 1,780,742</b>

\* Sales for resale other than native load priority.

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

Duke Energy Carolinas  
(Over) / Under Recovery of Fuel Costs  
Dec 2021

Line No.		Residential	Commercial	Industrial	Total
1	Actual System kWh sales				7,181,424,304
2	DERP Net Metered kWh generation				10,166,360
3	Adjusted System kWh sales				7,191,590,664
4	N.C. Retail kWh sales	1,975,539,867	1,952,172,317	960,990,889	4,888,703,073
5	NC kWh sales % of actual system kWh sales				68.07%
6	NC kWh sales % of adjusted system kWh sales				67.98%
7	Approved fuel and fuel-related rates (¢/kWh)				
7a	Billed rates by class (¢/kWh)	1.5337	1.6895	1.7243	1.6334
7b	Billed fuel expense	\$30,298,855	\$32,981,951	\$16,570,366	\$79,851,172
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (¢/kWh)				
8a	Docket E-7, Sub 1228 allocation factor	35.00%	43.03%	21.96%	
8b	System incurred expense				\$189,029,546
8c	Incurred base fuel and fuel-related expense	\$44,977,890	\$55,298,766	\$28,221,943	\$128,498,599
8d	Incurred base fuel rates by class (¢/kWh)	2.2767	2.8327	2.9368	2.6285
9	Incurred renewable purchased power capacity rates by class (¢/kWh)				
9a	NC retail production plant %				66.98%
9b	Production plant allocation factors	47.00%	37.09%	15.90%	100.00%
9c	System incurred expense				\$1,159,361
9d	Incurred renewable capacity expense	\$364,993	\$288,032	\$123,480	\$776,505
9e	Incurred renewable capacity rates by class (¢/kWh)	0.0185	0.0148	0.0128	0.0159
10	Total incurred rates by class (¢/kWh)	2.2952	2.8474	2.9496	2.6444
11	Difference in ¢/kWh (incurred - billed)	0.7615	1.1579	1.2253	1.0110
12	(Over) / under recovery [See footnote]	\$15,044,028	\$22,604,847	\$11,775,057	\$49,423,931
13	Adjustments				
14	Total (over) / under recovery [See footnote]	\$15,044,028	\$22,604,847	\$11,775,057	\$49,423,931
15	Total system incurred expense				\$190,188,907
16	Less: Jurisdictional allocation adjustment(s)				265,155
17	Total Fuel and Fuel-related Costs per Schedule 2				\$189,923,752
18	(Over) / under recovery for each month of the current calendar year [See footnote]				

	(Over) / Under Recovery				
	Total To Date	Residential	Commercial	Industrial	Total Company
Year 2021					
January	\$1,309,433	(\$3,602,217)	\$3,036,294	\$1,875,356	\$1,309,433
February	25,482,004	\$4,154,380	\$14,053,467	\$5,964,724	\$24,172,571
_/1 March	24,201,918	(\$7,158,737)	\$3,654,007	\$2,224,644	(\$1,280,086)
April	20,526,255	(\$1,178,659)	(\$1,305,025)	(\$1,191,979)	(\$3,675,663)
_/1 May	29,632,653	\$5,643,932	\$2,072,505	\$1,389,961	\$9,106,398
June	44,906,231	\$6,246,872	\$5,677,153	\$3,349,552	\$15,273,578
July	77,158,822	\$10,918,699	\$13,448,970	\$7,884,922	\$32,252,591
August	115,066,658	\$14,149,173	\$18,244,441	\$5,514,222	\$37,907,836
September	128,836,159	\$3,848,250	\$5,524,126	\$4,397,125	\$13,769,501
October	156,238,043	\$11,889,253	\$8,129,521	\$7,383,110	\$27,401,884
November	\$221,044,690	\$27,513,197	\$29,272,230	\$8,021,220	\$64,806,647
December	\$270,468,622	\$15,044,028	\$22,604,847	\$11,775,057	\$49,423,932
		\$87,468,172	\$124,412,536	\$58,587,915	\$270,468,622

## Notes:

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

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

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

\_/1 Includes 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 2021**

**Sykes Exhibit 6**  
**Schedule 5**  
**Page 1 of 2**

Description	Buck CC	Dan River CC	Lee CC	Clemson CHP	Lee Steam/CT	Lincoln CT	(A) Lincoln (Unit 17) CT	Mill Creek CT	Rockingham CT
<b>Cost of Fuel Purchased (\$)</b>									
Coal	-	-	-	-	-	-	-	682,026	342,571
Oil	-	-	-	-	-	-	-	-	-
Gas - CC	\$18,337,524	\$14,701,746	\$24,724,237	-	-	-	-	-	-
Gas - CHP	-	-	-	\$817,949	-	-	-	-	-
Gas - CT	-	-	-	-	\$14,021	\$6,134	(\$127,461)	\$293,036	\$4,099,824
Gas - Steam	-	-	-	-	3	-	-	-	-
Biogas	-	221,776	-	-	-	-	-	-	-
Total	\$18,337,524	\$14,923,522	\$24,724,237	\$817,949	\$14,024	\$6,134	(\$127,461)	\$975,062	\$4,442,395
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>									
Coal	-	-	-	-	-	-	-	1,672.86	1,655.96
Oil	-	-	-	-	-	-	-	-	-
Gas - CC	632.40	632.14	634.66	-	-	-	-	-	-
Gas - CHP	-	-	-	715.93	-	-	-	-	-
Gas - CT	-	-	-	-	-	1,792.50	(1,005.99)	653.43	636.17
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	2,601.47	-	-	-	-	-	-	-
Weighted Average	632.40	639.34	634.66	715.93	-	1,792.50	(1,005.99)	1,138.88	667.89
<b>Cost of Fuel Burned (\$)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	\$49,924	-	154,413	21,294	-
Gas - CC	\$18,337,524	\$14,701,746	\$24,724,237	-	-	-	-	-	-
Gas - CHP	-	-	-	\$817,949	-	-	-	-	-
Gas - CT	-	-	-	-	14,021	\$6,134	(\$127,461)	\$293,036	\$4,099,824
Gas - Steam	-	-	-	-	3	-	-	-	-
Biogas	-	221,776	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Total	\$18,337,524	\$14,923,522	\$24,724,237	\$817,949	\$63,949	\$6,134	\$26,952	\$314,330	\$4,099,824
<b>Average Cost of Fuel Burned (¢/MBTU)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	1,400.40	-	1,105.56	1,784.91	-
Gas - CC	632.40	632.14	634.66	-	-	-	-	-	-
Gas - CHP	-	-	-	715.93	-	-	-	-	-
Gas - CT	-	-	-	-	-	1,792.50	(1,005.99)	653.43	636.17
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	2,601.47	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Weighted Average	632.40	639.34	634.66	715.93	1,793.79	1,792.50	101.18	682.75	636.17
<b>Average Cost of Generation (¢/kWh)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	-	-	15.06	1.68	-
Gas - CC	4.44	4.43	4.47	-	-	-	-	-	-
Gas - CHP	-	-	-	8.53	-	-	-	-	-
Gas - CT	-	-	-	-	-	-	-	15.22	6.76
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	18.25	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Weighted Average	4.44	4.48	4.47	8.53	-	-	5.90	9.84	6.76
<b>Burned MBTU's</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	3,565	-	13,967	1,193	-
Gas - CC	2,899,674	2,325,698	3,895,675	-	-	-	-	-	-
Gas - CHP	-	-	-	114,250	-	-	-	-	-
Gas - CT	-	-	-	-	-	342	12,670	44,846	644,452
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	8,525	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Total	2,899,674	2,334,223	3,895,675	114,250	3,565	342	26,637	46,039	644,452
<b>Net Generation (mWh)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	(34)	-	1,025	1,269	-
Gas - CC	413,337	332,121	553,237	-	-	-	-	-	-
Gas - CHP	-	-	-	9,589	-	-	-	-	-
Gas - CT	-	-	-	-	(0)	(855)	(568)	1,925	60,653
Gas - Steam	-	-	-	-	(388)	-	-	-	-
Biogas	-	1,215	-	-	-	-	-	-	-
Nuclear 100%	-	-	-	-	-	-	-	-	-
Hydro (Total System)	-	-	-	-	-	-	-	-	-
Solar (Total System)	-	-	-	-	-	-	-	-	-
Total	413,337	333,336	553,237	9,589	(422)	(855)	457	3,194	60,653
<b>Cost of Reagents Consumed (\$)</b>									
Ammonia	\$45,251	\$0	\$27,467	-	-	-	-	-	-
Limestone	-	-	-	-	-	-	-	-	-
Sorbents	-	-	-	-	-	-	-	-	-
Urea	-	-	-	-	-	-	-	-	-
Re-emission Chemical	-	-	-	-	-	-	-	-	-
Dibasic Acid	-	-	-	-	-	-	-	-	-
Activated Carbon	-	-	-	-	-	-	-	-	-
Lime (water emissions)	-	-	-	-	-	-	-	-	-
Total	\$45,251	\$0	\$27,467	-	-	-	-	-	-

**Notes:**

(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.

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.

Lime (water emissions) expense is not recoverable in SC fuel clause.

**DUKE ENERGY CAROLINAS**  
**FUEL AND FUEL RELATED COST REPORT**  
**DECEMBER 2021**

**Sykes Exhibit 6**  
**Schedule 5**  
**Page 2 of 2**

Description	Allen	Marshall	Belews Creek	Cliffside	Catawba	McGuire	Oconee	Current Month	Total 12 ME December 2021
	Steam	Steam - Dual Fuel	Steam - Dual Fuel	Steam - Dual Fuel	Nuclear	Nuclear	Nuclear		
<b>Cost of Fuel Purchased (\$)</b>									
Coal	\$9,147	\$13,307,577	\$3,448,822	\$4,617,247				21,382,792	\$427,384,699
Oil	17,051	-	-	104,088				1,145,737	8,620,241
Gas - CC								57,763,507	416,957,828
Gas - CHP								817,949	1,710,128
Gas - CT								4,285,554	48,026,140
Gas - Steam		19,910,055	20,938,211	20,962,280				61,810,549	331,328,622
Biogas								221,776	3,513,761
Total	\$26,198	\$33,217,632	\$24,387,033	\$25,683,615				\$147,427,864	\$1,237,541,419
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>									
Coal	-	341.95	388.15	353.46				351.32	311.27
Oil	1,657.42	-	-	1,659.76				1,666.35	1,557.24
Gas - CC								633.30	406.84
Gas - CHP								715.93	718.56
Gas - CT								639.90	378.17
Gas - Steam		632.16	632.96	644.19				636.47	447.74
Biogas								2,601.47	2,304.35
Weighted Average	2,546.48	471.76	581.13	562.42				571.14	377.95
<b>Cost of Fuel Burned (\$)</b>									
Coal	\$65,756	\$5,862,319	\$2,100,615	\$1,800,631				\$9,829,322	\$428,535,150
Oil - CC								-	-
Oil - Steam/CT	29,766	10,457	-	56,288				322,142	8,828,699
Gas - CC								57,763,507	416,957,828
Gas - CHP								817,949	1,710,128
Gas - CT								4,285,554	48,026,140
Gas - Steam		19,910,055	20,938,211	20,962,280				61,810,549	331,328,622
Biogas								221,776	3,513,761
Nuclear					\$10,271,789	\$9,549,235	\$10,065,209	29,886,234	346,155,577
Total	\$95,522	\$25,782,831	\$23,038,826	\$22,819,199	\$10,271,789	\$9,549,235	\$10,065,209	\$164,937,032	\$1,585,055,905
<b>Average Cost of Fuel Burned (¢/MBTU)</b>									
Coal	308.89	306.80	326.30	296.55				308.80	323.27
Oil - CC								-	-
Oil - Steam/CT	1,714.61	1,448.33	-	1,600.91				1,304.27	1,513.70
Gas - CC								633.30	406.84
Gas - CHP								715.93	718.56
Gas - CT								639.90	378.17
Gas - Steam		632.16	632.96	644.19				636.47	447.74
Biogas								2,601.47	2,304.35
Nuclear					58.89	54.27	58.00	57.04	56.91
Weighted Average	414.88	509.44	583.01	590.45	58.89	54.27	58.00	219.17	170.26
<b>Average Cost of Generation (¢/kWh)</b>									
Coal	-	3.39	3.67	3.13				3.44	3.16
Oil - CC								-	-
Oil - Steam/CT	47.38	22.07	-	16.10				11.84	16.35
Gas - CC								4.45	2.87
Gas - CHP								8.53	10.87
Gas - CT								7.01	4.24
Gas - Steam		5.99	6.50	6.56				6.35	4.58
Biogas								18.25	16.34
Nuclear					0.59	0.54	0.59	0.57	0.57
Weighted Average	-	5.10	6.07	6.04	0.59	0.54	0.59	2.09	1.61
<b>Burned MBTU's</b>									
Coal	21,288	1,910,774	643,767	607,196				3,183,025	132,563,622
Oil - CC								-	-
Oil - Steam/CT	1,736	722	-	3,516				24,699	583,254
Gas - CC								9,121,047	102,486,732
Gas - CHP								114,250	237,993
Gas - CT								702,310	12,699,459
Gas - Steam		3,149,517	3,307,964	3,254,033				9,711,513	74,000,255
Biogas								8,525	152,484
Nuclear					17,441,318	17,596,089	17,353,876	52,391,283	608,224,167
Total	23,024	5,061,013	3,951,731	3,864,745	17,441,318	17,596,089	17,353,876	75,256,653	930,947,966
<b>Net Generation (mWh)</b>									
Coal	(1,949)	172,888	57,288	57,562				285,789	13,569,695
Oil - CC								-	-
Oil - Steam/CT	63	47	-	350				2,720	53,988
Gas - CC								1,298,695	14,542,974
Gas - CHP								9,589	15,739
Gas - CT								61,155	1,131,529
Gas - Steam		332,208	322,315	319,641				973,777	7,231,653
Biogas								1,215	21,502
Nuclear 100%					1,750,213	1,777,245	1,717,933	5,245,391	60,454,296
Hydro (Total System)								(11,675)	1,340,157
Solar (Total System)								15,972	293,289
Total	(1,886)	505,143	379,603	377,553	1,750,213	1,777,245	1,717,933	7,882,628	98,654,822
<b>Cost of Reagents Consumed (\$)</b>									
Ammonia			\$201,650	\$36,996				\$311,364	\$3,138,382
Limestone	\$0	\$247,876	50,319	154,001				\$452,195	12,981,466
Sorbents	-	31,875	-	-				\$31,875	1,514,963
Urea	-	51,650	-	-				\$51,650	389,401
Re-emission Chemical	-	-	-	-				\$0	316,690
Dibasic Acid	-	-	-	-				\$0	-
Activated Carbon	-	-	-	-				\$0	358,930
Lime (water emissions)	-	-	8,010	-				\$8,010	39,411
Total	-	331,401	\$259,978	\$190,997				\$855,094	\$18,739,243

**Notes:**

(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.

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.

Lime (water emissions) expense is not recoverable in SC fuel clause.



**DUKE ENERGY CAROLINAS**  
**FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT**  
**DECEMBER 2021**

Description	Buck CC	Dan River CC	Lee CC	Clemson CHP	Lee Steam/CT	Lincoln CT	(A)	Mill Creek CT	Rockingham CT	Allen Steam	Marshall Steam - Dual Fuel	Belews	Cliffside Steam - Dual Fuel	Current Month	Total 12 ME December 2021
							Lincoln (Unit17) CT					Creek Steam - Dual Fuel			
<b>Coal Data:</b>															
Beginning balance					-					110,834	714,068	709,231	600,419	2,134,553	2,088,546.52
Tons received during period										-	154,113	36,234	50,335	240,682	5,535,629.00
Inventory adjustments											0	(0)	0	0	(59,105.14)
Tons burned during period										885	74,950	25,810	23,739	125,384	5,315,219.09
Ending balance										109,949	793,231	719,654	627,016	2,249,850	2,249,850.29
MBTUs per ton burned										144.00	25.49	24.94	25.58	26.23	24.94
Cost of ending inventory (\$/ton)										74.30	78.22	81.39	75.85	78.38	78.38
<b>Oil Data:</b>															
Beginning balance	-	-	-		644,737	8,458,109	1,345,366	3,435,783	2,760,864	74,474	297,507	95,645	190,014	17,302,499	18,142,757
Gallons received during period	-	-	-		-	-	-	295,436	149,907	7,455	-	-	45,444	498,242	4,011,299
Miscellaneous adjustments	-	-	-		-	-	(24,834)	-	-	-	-	(5,273)	(4,237)	(34,099)	(274,028)
Gallons burned during period	-	-	-		25,990	-	77,576	8,668	-	12,671	5,273	-	25,712	156,135	4,269,522
Ending balance	-	-	-		618,747	8,458,109	1,242,955	3,722,551	2,910,771	69,258	292,234	90,372	205,509	17,610,506	17,610,506
Cost of ending inventory (\$/gal)	-	-	-		1.92	2.10	1.99	2.46	2.12	2.35	1.98	2.25	2.19	2.16	2.16
<b>Natural Gas Data:</b>															
Beginning balance															
MCF received during period	2,807,749	2,247,267	3,791,315	111,221	-	332	(158)	43,738	622,006		3,060,068	3,194,905	3,155,140	19,033,584	183,335,760
MCF burned during period	2,807,749	2,247,267	3,791,315	111,221	-	332	(158)	43,738	622,006		3,060,068	3,194,905	3,155,140	19,033,584	183,335,760
Ending balance															
<b>Biogas Data:</b>															
Beginning balance															
MCF received during period	-	8,237	-											8,237	147,532
MCF burned during period	-	8,237	-											8,237	147,532
Ending balance															
<b>Limestone Data:</b>															
Beginning balance										24,210	45,035	45,723	29,962	144,930	154,428
Tons received during period										-	12,544	1,676	8,277	22,498	281,447
Inventory adjustments										-	-	-	-	-	(1,837)
Tons consumed during period										-	5,699	1,074	1,915	8,688	275,299
Ending balance										24,210	51,880	46,325	36,324	158,739	158,739
Cost of ending inventory (\$/ton)										49.08	43.49	46.83	42.16	45.02	45.02
<b>Ammonia Data: (B)</b>															
Beginning balance	2,650													2,650	1,822
Tons received during period	996													996	5,129
Tons consumed during period	885													885	4,190
Ending balance	2,761													2,761	2,761
Cost of ending inventory (\$/ton)	843.38													843.38	843.38

**Notes:**  
Detail amounts may not add to totals shown due to rounding.  
Schedule excludes in-transit and terminal activity.  
Gas is burned as received; therefore, inventory balances are not maintained.  
(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.  
(B) Quarterly ammonia inventory amounts are revised to reflect a correction to June quantities, affecting the quarter ending September 2021 beginning balance. Revised amounts for quarter ending June 2021 are revised above.

**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL PURCHASED  
DECEMBER 2021**

<b>STATION</b>	<b>TYPE</b>	<b>QUANTITY OF TONS DELIVERED</b>	<b>DELIVERED COST</b>	<b>DELIVERED COST PER TON</b>
<b>ALLEN</b>	SPOT	-	\$ -	\$ -
	CONTRACT	-	-	-
	FIXED TRANSPORTATION / ADJUSTMENTS	-	9,147	-
	<b>TOTAL</b>	<b>-</b>	<b>9,147</b>	<b>-</b>
<b>BELEWS CREEK</b>	SPOT	-	111,089	-
	CONTRACT	36,234	2,920,743	80.61
	FIXED TRANSPORTATION / ADJUSTMENTS	-	416,990	-
	<b>TOTAL</b>	<b>36,234</b>	<b>3,448,822</b>	<b>95.18</b>
<b>CLIFFSIDE</b>	SPOT	13,034	1,151,180	88.32
	CONTRACT	37,301	3,111,563	83.42
	FIXED TRANSPORTATION / ADJUSTMENTS	-	354,504	-
	<b>TOTAL</b>	<b>50,335</b>	<b>4,617,247</b>	<b>91.73</b>
<b>MARSHALL</b>	SPOT	76,949	6,966,864	90.54
	CONTRACT	77,165	5,901,064	76.47
	FIXED TRANSPORTATION / ADJUSTMENTS	-	439,649	-
	<b>TOTAL</b>	<b>154,114</b>	<b>13,307,577</b>	<b>86.35</b>
<b>ALL PLANTS</b>	SPOT	89,983	8,229,133	91.45
	CONTRACT	150,700	11,933,370	79.19
	FIXED TRANSPORTATION / ADJUSTMENTS	-	1,220,290	-
	<b>TOTAL</b>	<b>240,683</b>	<b>21,382,793</b>	<b>\$ 88.84</b>

**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL QUALITY RECEIVED  
DECEMBER 2021**

<b>STATION</b>	<b>PERCENT MOISTURE</b>	<b>PERCENT ASH</b>	<b>HEAT VALUE</b>	<b>PERCENT SULFUR</b>
<b>ALLEN</b>	-	-	-	-
<b>BELEWS CREEK</b>	7.48	10.95	12,261	1.47
<b>CLIFFSIDE</b>	6.18	8.77	12,976	2.99
<b>LEE</b>	-	-	-	-
<b>MARSHALL</b>	6.73	9.31	12,626	1.95

**DUKE ENERGY CAROLINAS  
ANALYSIS OF OIL PURCHASED  
DECEMBER 2021**

	<u>ALLEN</u>	<u>BELEWS CREEK</u>	
<b>VENDOR</b>	HighTowers	HighTowers	
<b>SPOT/CONTRACT</b>	Contract	Contract	
<b>SULFUR CONTENT %</b>	-	-	
<b>GALLONS RECEIVED</b>	7,455	-	
<b>TOTAL DELIVERED COST</b>	\$ 17,051	\$ -	
<b>DELIVERED COST/GALLON</b>	\$ 2.29	\$ -	
<b>BTU/GALLON</b>	138,000	138,000	
	<u>CLIFFSIDE</u>	<u>MARSHALL</u>	
<b>VENDOR</b>	HighTowers	HighTowers	
<b>SPOT/CONTRACT</b>	Contract	Contract	
<b>SULFUR CONTENT %</b>	-	-	
<b>GALLONS RECEIVED</b>	45,444	-	
<b>TOTAL DELIVERED COST</b>	\$ 104,088	\$ -	
<b>DELIVERED COST/GALLON</b>	\$ 2.29	\$ -	
<b>BTU/GALLON</b>	138,000	138,000	
	<u>LEE</u>	<u>MILL CREEK</u>	<u>ROCKINGHAM</u>
<b>VENDOR</b>	HighTowers	HighTowers	HighTowers
<b>SPOT/CONTRACT</b>	Contract	Contract	Contract
<b>SULFUR CONTENT %</b>	-	-	-
<b>GALLONS RECEIVED</b>	-	295,436	149,907
<b>TOTAL DELIVERED COST</b>	\$ -	\$ 682,026	\$ 342,571
<b>DELIVERED COST/GALLON</b>	\$ -	\$ 2.31	\$ 2.29
<b>BTU/GALLON</b>	138,000	138,000	138,000

I/A

Duke Energy Carolinas Base Load Power Plant Performance Review Plan  
 Report Period: December 2021 - December 2021

Station	Unit	Date of Outage	Duration of Outage (Hours)	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Actions Taken
Oconee	1						
	2	11/12/2021 - 12/07/2021	160.10	Scheduled	Refueling outage O2R30	Normal refueling outage	N/A - Normal refueling outage
	2	12/10/2021 - 12/12/2021	60.35	Unscheduled	Forced outage O2F30A due to spurious reactor protection system (RPS) relay actuation	Spurious reactor protection system (RPS) relay actuation	A failure investigation was started and the 2NI-5 linear amplifier was repaired
McGuire	3						
	1						
	2						
Catawba	1						
	2						

OFFICIAL COPY  
JUN 27 2022

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Belews Creek Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1	12/1/2021 11:30:00 AM To 12/3/2021 5:00:00 PM	Sch	4899 Other miscellaneous generator problems	Generator PT appears to have a loose connection causing issues with closing	

**Buck Combined Cycle Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
11	12/19/2021 10:42:00 AM To 12/19/2021 10:46:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSETS TO OPPOSING UNIT.	
12	12/18/2021 2:00:00 PM To 12/18/2021 8:06:00 PM	Sch	0680 Feedwater valves (not feedwater regulating valve)	12 ECONOMIZER VENT VALVE REPLACEMENT. VALVE PACKING BLOWN OUT AND VALVE WAS STUCK AND WOULD NOT OPERATE.	
ST10	12/19/2021 9:04:00 AM To 12/19/2021 9:47:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSET TO UNIT.	
ST10	12/19/2021 10:22:00 AM To 12/19/2021 11:04:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSET TO UNIT	

**Clemson CHP**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1	11/24/2021 9:30:00 AM To 12/1/2021 9:00:00 AM	Sch	4551 Generator bearings	Planned outage to address generator bearing leaks. New seals installed.	
1	12/8/2021 10:13:00 AM To 12/8/2021 5:28:00 PM	Sch	4552 Generator lube oil system	Short outage for generator oil leakage inspection.	

**Dan River Combined Cycle Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
8	12/8/2021 9:59:00 PM To 12/12/2021 1:27:00 PM	Sch	5261 Gas turbine/compressor washing	1x1 Planned Outage for Water Wash of GT8 and minor maintenance	

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% owne

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

OFFICIAL COPY

9	12/4/2021 12:56:00 AM To 12/8/2021 6:52:00 PM	Sch	5261	Gas turbine/compressor washing	GT9 is in Planned Outage for 1X1 outage for Water Wash and Minor Maintenance
---	--	-----	------	--------------------------------	--

**Marshall Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
3	12/10/2021 2:29:00 AM To 12/16/2021 2:30:00 PM	Sch	0541 Cold reheat steam piping up to boiler	Reheat Piping Leak Repairs	
3	12/19/2021 12:44:00 PM To 12/19/2021 2:51:00 PM	Unsch	0530 Other main steam system problems	Superheat steam temp issues	
3	12/19/2021 2:51:00 PM To 12/20/2021 3:00:00 PM	Unsch	4240 Bearings	Unit 3 bearing vibration on attempted start.	
3	12/20/2021 3:00:00 PM To 12/30/2021 7:00:00 PM	Unsch	4240 Bearings	Unit 3 bearing vibration on attempted start. Unit will go into outage to repair the issue.	

JUN 27 2022

**WS Lee Combined Cycle**

No Outages at Baseload Units During the Month.

Notes:

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

**Duke Energy Carolinas Base Load Power Plant Performance Review Plan**  
**Report Period: December 2021 - December 2021**

	Oconee 1	Oconee 2	Oconee 3	McGuire 1	McGuire 2	Catawba 1	Catawba 2
(A) MDC (MW)	847	848	859	1158	1158	1160	1150
(B) Period Hours	744	744	744	744	744	744	744
(C1) Net Gen (MWH)	643,930	419,589	654,414	888,551	888,694	880,196	870,017
(C2) Capacity Factor (%)	102.18	66.51	102.40	103.13	103.15	101.99	101.69
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	135,765	0	0	0	0	0
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	21.52	0.00	0.00	0.00	0.00	0.00
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	0	18,509	0	0	0	0	0
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	2.93	0.00	0.00	0.00	0.00	0.00
(F1) Net MWH Not Gen Due to Full Forced Outages	0	51,177	0	0	0	0	0
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	8.11	0.00	0.00	0.00	0.00	0.00
(G1) Net MWH Not Gen due to Partial Forced Outages	-13,762	5,872	-15,318	-26,999	-27,142	-17,156	-14,417
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-2.18	0.93	-2.40	-3.13	-3.15	-1.99	-1.69
(H1) Net MWH Not Gen Due to Economic Dispatch	0	0	0	0	0	0	0
(H2) %Net MWH Not Gen Due to Economic Dispatch	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(I1) Core Conservation	0	0	0	0	0	0	0
(I2) % Core Conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(J1) Net MWH Possible in Period	630,168	630,912	639,096	861,552	861,552	863,040	855,600
(J2) % Net mwh Possible in Period	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
(K) Equivalent Availability (%)	100.00	65.78	100.00	100.00	100.00	100.00	100.00
(L) Output Factor (%)	102.18	94.51	102.40	103.13	103.15	101.99	101.69
(M) Heat Rate (BTU/Net KWH)	10,130	10,277	9,961	9,901	9,901	9,991	9,939

Notes:

- Fields (E1), (E2), (G1), (G2), (H1), (H2), (I1) and (I2) are estimates
  - Fields (D1), (D2), (F1) and (F2) include ramping losses
- EAF is calculated using Standard NERC calculation and excludes OMC events



I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	744	744
(C) Net Generation (mWh)	-1,362	380,965
(D) Capacity Factor (%)	0.00	46.13
(E) Net mWh Not Generated due to Full Scheduled Outages	59,385	0
(F) Scheduled Outages: percent of Period Hrs	7.19	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	33,600
(H) Scheduled Derates: percent of Period Hrs	0.00	4.07
(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	770
(L) Forced Derates: percent of Period Hrs	0.00	0.09
(M) Net mWh Not Generated due to Economic Dispatch	766,455	410,505
(N) Economic Dispatch: percent of Period Hrs	92.81	49.71
(O) Net mWh Possible in Period	825,840	825,840
(P) Equivalent Availability (%)	92.81	95.84
(Q) Output Factor (%)	0.00	46.13
(R) Heat Rate (BTU/NkWh)	0	10,986

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	306	718
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	127,292	114,031	172,014	413,337
(D) Capacity Factor (%)	83.05	74.40	75.56	77.38
(E) Net mWh Not Generated due to Full Scheduled Outages	0	1,257	0	1,257
(F) Scheduled Outages: percent of Period Hrs	0.00	0.82	0.00	0.24
(G) Net mWh Not Generated due to Partial Scheduled Outages	231	231	525	987
(H) Scheduled Derates: percent of Period Hrs	0.15	0.15	0.23	0.18
(I) Net mWh Not Generated due to Full Forced Outages	14	0	434	447
(J) Forced Outages: percent of Period Hrs	0.01	0.00	0.19	0.08
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	383	383
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.17	0.07
(M) Net mWh Not Generated due to Economic Dispatch	25,727	37,745	54,308	117,781
(N) Economic Dispatch: percent of Period Hrs	16.79	24.63	23.85	22.05
(O) Net mWh Possible in Period	153,264	153,264	227,664	534,192
(P) Equivalent Availability (%)	99.84	99.03	99.41	99.42
(Q) Output Factor (%)	83.06	83.25	75.70	79.88
(R) Heat Rate (BTU/NkWh)	10,525	10,190	2,366	7,037

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Clemson CHP**

Clemson CHP1

(A) MDC (mW)	16
(B) Period Hrs	744
(C) Net Generation (mWh)	9,589
(D) Capacity Factor (%)	83.15
(E) Net mWh Not Generated due to Full Scheduled Outages	252
(F) Scheduled Outages: percent of Period Hrs	2.18
(G) Net mWh Not Generated due to Partial Scheduled Outages	0
(H) Scheduled Derates: percent of Period Hrs	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0
(J) Forced Outages: percent of Period Hrs	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0
(L) Forced Derates: percent of Period Hrs	0.00
(M) Net mWh Not Generated due to Economic Dispatch	1,691
(N) Economic Dispatch: percent of Period Hrs	14.66
(O) Net mWh Possible in Period	11,532
(P) Equivalent Availability (%)	97.82
(Q) Output Factor (%)	86.79
(R) Heat Rate (BTU/NkWh)	11,176

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	206	206	308	720
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	84,374	107,001	141,961	333,336
(D) Capacity Factor (%)	55.05	69.81	61.95	62.23
(E) Net mWh Not Generated due to Full Scheduled Outages	18,018	23,470	0	41,488
(F) Scheduled Outages: percent of Period Hrs	11.76	15.31	0.00	7.74
(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	127	127
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.06	0.02
(M) Net mWh Not Generated due to Economic Dispatch	50,872	22,793	87,064	160,729
(N) Economic Dispatch: percent of Period Hrs	33.19	14.87	37.99	30.00
(O) Net mWh Possible in Period	153,264	153,264	229,152	535,680
(P) Equivalent Availability (%)	88.24	84.69	99.94	92.23
(Q) Output Factor (%)	82.25	82.44	61.95	72.22
(R) Heat Rate (BTU/NkWh)	11,217	10,612	2,470	7,297

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	744	744
(C) Net Generation (mWh)	77,447	297,472
(D) Capacity Factor (%)	15.82	60.58
(E) Net mWh Not Generated due to Full Scheduled Outages	102,659	0
(F) Scheduled Outages: percent of Period Hrs	20.97	0.00
(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	177,836	0
(J) Forced Outages: percent of Period Hrs	36.33	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	131,610	193,568
(N) Economic Dispatch: percent of Period Hrs	26.88	39.42
(O) Net mWh Possible in Period	489,552	491,040
(P) Equivalent Availability (%)	42.70	100.00
(Q) Output Factor (%)	53.10	60.58
(R) Heat Rate (BTU/NkWh)	10,746	9,696

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	248	248	313	809
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	158,470	164,031	230,736	553,237
(D) Capacity Factor (%)	85.89	88.90	99.08	91.92
(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	26,042	20,481	2,136	48,659
(N) Economic Dispatch: percent of Period Hrs	14.11	11.10	0.92	8.08
(O) Net mWh Possible in Period	184,512	184,512	232,872	601,896
(P) Equivalent Availability (%)	100.00	100.00	100.00	100.00
(Q) Output Factor (%)	85.89	91.67	99.08	92.78
(R) Heat Rate (BTU/NkWh)	10,989	10,610	2,508	7,340

Notes:

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

**Duke Energy Carolinas  
Intermediate Power Plant Performance  
Review Plan  
December 2021**

Sykes Exhibit 6  
Schedule 10

OFFICIAL COPY

JUN 27 2022

**Cliffside Station**

**Cliffside 6**

(A) MDC (mW)	849
(B) Period Hrs	744
(C) Net Generation (mWh)	380,358
(D) Net mWh Possible in Period	631,656
(E) Equivalent Availability (%)	96.32
(F) Output Factor (%)	60.22
(G) Capacity Factor (%)	60.22

Notes:

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

I/A  
**Duke Energy Carolinas**  
**Peaking Power Plant Performance**  
**Review Plan**  
**December 2021**

Sykes Exhibit 6  
Schedule 10

OFFICIAL COPY

JUN 27 2022

**Cliffside Station**

**Unit 5**

(A) MDC (mW)	546
(B) Period Hrs	744
(C) Net Generation (mWh)	-2,805
(D) Net mWh Possible in Period	406,224
(E) Equivalent Availability (%)	0.00
(F) Output Factor (%)	0.00
(G) Capacity Factor (%)	0.00

Notes:

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



**Duke Energy Carolinas Base Load Power Plant Performance Review Plan**  
**Report Period: January 2021 - December 2021**

	Oconee 1	Oconee 2	Oconee 3	McGuire 1	McGuire 2	Catawba 1	Catawba 2
(A) MDC (MW)	847	848	859	1158	1158	1160	1150
(B) Period Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760
(C1) Net Gen (MWH)	7,579,868	6,981,796	7,644,799	10,361,236	9,300,878	9,571,297	9,014,422
(C2) Capacity Factor (%)	102.16	93.99	101.59	102.14	91.69	94.19	89.48
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	503,797	0	0	840,901	523,488	883,200
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	6.78	0.00	0.00	8.29	5.15	8.77
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	141	39,112	252	403	26,161	47,272	90,598
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	0.53	0.00	0.00	0.26	0.47	0.90
(F1) Net MWH Not Gen Due to Full Forced Outages	0	51,177	0	0	81,871	78,396	147,045
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	0.69	0.00	0.00	0.81	0.77	1.46
(G1) Net MWH Not Gen due to Partial Forced Outages	-160,289	-147,402	-120,211	-217,559	-105,731	-58,853	-61,265
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-2.16	-1.99	-1.59	-2.14	-1.05	-0.58	-0.61
(H1) Net MWH Not Gen Due to Economic Dispatch	0	0	0	0	0	0	0
(H2) %Net MWH Not Gen Due to Economic Dispatch	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(I1) Core Conservation	0	0	0	0	0	0	0
(I2) % Core Conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(J1) Net MWH Possible in Period	7,419,720	7,428,480	7,524,840	10,144,080	10,144,080	10,161,600	10,074,000
(J2) % Net mwh Possible in Period	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
(K) Equivalent Availability (%)	100.00	90.67	100.00	100.00	90.25	93.06	88.87
(L) Output Factor (%)	102.16	101.58	101.59	102.14	100.86	100.12	99.68
(M) Heat Rate (BTU/Net KWH)	10,129	10,085	10,042	9,996	10,073	10,090	10,026

Notes:

- 1) Fields (E1), (E2), (G1), (G2), (H1), (H2), (I1) and (I2) are estimates
  - 2) Fields (D1), (D2), (F1) and (F2) include ramping losses
- EAF is calculated using Standard NERC calculation and excludes OMC events

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**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)	4,275,170	4,734,846
(D) Capacity Factor (%)	43.97	48.69
(E) Net mWh Not Generated due to Full Scheduled Outages	1,696,635	1,108,465
(F) Scheduled Outages: percent of Period Hrs	17.45	11.40
(G) Net mWh Not Generated due to Partial Scheduled Outages	13,357	54,149
(H) Scheduled Derates: percent of Period Hrs	0.14	0.56
(I) Net mWh Not Generated due to Full Forced Outages	157,731	277,075
(J) Forced Outages: percent of Period Hrs	1.62	2.85
(K) Net mWh Not Generated due to Partial Forced Outages	188,070	72,653
(L) Forced Derates: percent of Period Hrs	1.93	0.75
(M) Net mWh Not Generated due to Economic Dispatch	3,392,638	3,476,412
(N) Economic Dispatch: percent of Period Hrs	34.81	35.75
(O) Net mWh Possible in Period	9,723,600	9,723,600
(P) Equivalent Availability (%)	78.86	84.45
(Q) Output Factor (%)	66.62	59.52
(R) Heat Rate (BTU/NkWh)	9,382	9,959

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	306	718
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,350,380	1,370,919	1,814,076	4,535,375
(D) Capacity Factor (%)	74.83	75.97	67.68	72.11
(E) Net mWh Not Generated due to Full Scheduled Outages	106,389	81,507	123,379	311,276
(F) Scheduled Outages: percent of Period Hrs	5.90	4.52	4.60	4.95
(G) Net mWh Not Generated due to Partial Scheduled Outages	114,711	117,301	11,070	243,082
(H) Scheduled Derates: percent of Period Hrs	6.36	6.50	0.41	3.86
(I) Net mWh Not Generated due to Full Forced Outages	14	1,507	434	1,955
(J) Forced Outages: percent of Period Hrs	0.00	0.08	0.02	0.03
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	3,024	3,024
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.11	0.05
(M) Net mWh Not Generated due to Economic Dispatch	233,066	233,325	728,577	1,194,969
(N) Economic Dispatch: percent of Period Hrs	12.92	12.93	27.18	19.00
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,680,560	6,289,680
(P) Equivalent Availability (%)	87.75	88.90	94.86	91.11
(Q) Output Factor (%)	82.76	82.91	72.45	78.35
(R) Heat Rate (BTU/NkWh)	9,691	10,236	1,616	6,626

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Clemson CHP**

Clemson CHP1

(A) MDC (mW)	16
(B) Period Hrs	8,760
(C) Net Generation (mWh)	15,739
(D) Capacity Factor (%)	11.59
(E) Net mWh Not Generated due to Full Scheduled Outages	24,977
(F) Scheduled Outages: percent of Period Hrs	18.40
(G) Net mWh Not Generated due to Partial Scheduled Outages	11,069
(H) Scheduled Derates: percent of Period Hrs	8.15
(I) Net mWh Not Generated due to Full Forced Outages	10,258
(J) Forced Outages: percent of Period Hrs	7.55
(K) Net mWh Not Generated due to Partial Forced Outages	0
(L) Forced Derates: percent of Period Hrs	0.00
(M) Net mWh Not Generated due to Economic Dispatch	73,736
(N) Economic Dispatch: percent of Period Hrs	54.13
(O) Net mWh Possible in Period	135,780
(P) Equivalent Availability (%)	65.90
(Q) Output Factor (%)	80.91
(R) Heat Rate (BTU/NkWh)	11,851

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	206	206	308	720
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,228,210	1,262,306	1,682,928	4,173,444
(D) Capacity Factor (%)	68.06	69.95	62.38	66.17
(E) Net mWh Not Generated due to Full Scheduled Outages	157,624	164,209	208,321	530,155
(F) Scheduled Outages: percent of Period Hrs	8.73	9.10	7.72	8.41
(G) Net mWh Not Generated due to Partial Scheduled Outages	138,404	138,401	283,369	560,174
(H) Scheduled Derates: percent of Period Hrs	7.67	7.67	10.50	8.88
(I) Net mWh Not Generated due to Full Forced Outages	11,268	8,992	13,003	33,263
(J) Forced Outages: percent of Period Hrs	0.62	0.50	0.48	0.53
(K) Net mWh Not Generated due to Partial Forced Outages	524	524	1,751	2,799
(L) Forced Derates: percent of Period Hrs	0.03	0.03	0.06	0.04
(M) Net mWh Not Generated due to Economic Dispatch	268,530	230,128	508,708	1,007,366
(N) Economic Dispatch: percent of Period Hrs	14.88	12.75	18.85	15.97
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,698,080	6,307,200
(P) Equivalent Availability (%)	82.94	82.70	81.23	82.14
(Q) Output Factor (%)	80.86	81.25	70.26	76.33
(R) Heat Rate (BTU/NkWh)	10,791	10,678	1,695	7,089

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	1,592,995	3,404,773
(D) Capacity Factor (%)	27.64	58.89
(E) Net mWh Not Generated due to Full Scheduled Outages	2,776,058	686,268
(F) Scheduled Outages: percent of Period Hrs	48.16	11.87
(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	309,786	223,256
(J) Forced Outages: percent of Period Hrs	5.37	3.86
(K) Net mWh Not Generated due to Partial Forced Outages	240,971	118,342
(L) Forced Derates: percent of Period Hrs	4.18	2.05
(M) Net mWh Not Generated due to Economic Dispatch	844,270	1,348,961
(N) Economic Dispatch: percent of Period Hrs	14.56	23.33
(O) Net mWh Possible in Period	5,764,080	5,781,600
(P) Equivalent Availability (%)	42.28	82.22
(Q) Output Factor (%)	64.91	71.49
(R) Heat Rate (BTU/NkWh)	10,324	9,746

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JUN 27 2022

**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	248	248	313	809
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,739,729	1,714,227	2,401,701	5,855,657
(D) Capacity Factor (%)	80.08	78.91	87.59	82.63
(E) Net mWh Not Generated due to Full Scheduled Outages	188,306	237,257	244,781	670,345
(F) Scheduled Outages: percent of Period Hrs	8.67	10.92	8.93	9.46
(G) Net mWh Not Generated due to Partial Scheduled Outages	51,608	54,497	0	106,105
(H) Scheduled Derates: percent of Period Hrs	2.38	2.51	0.00	1.50
(I) Net mWh Not Generated due to Full Forced Outages	9,507	0	1,951	11,458
(J) Forced Outages: percent of Period Hrs	0.44	0.00	0.07	0.16
(K) Net mWh Not Generated due to Partial Forced Outages	139	0	0	139
(L) Forced Derates: percent of Period Hrs	0.01	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	183,191	166,498	93,446	443,136
(N) Economic Dispatch: percent of Period Hrs	8.43	7.66	3.41	6.25
(O) Net mWh Possible in Period	2,172,480	2,172,480	2,741,880	7,086,840
(P) Equivalent Availability (%)	88.51	86.57	91.00	88.88
(Q) Output Factor (%)	88.72	89.14	96.57	91.91
(R) Heat Rate (BTU/NkWh)	10,545	10,515	2,312	7,160

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

I/A  
**Duke Energy Carolinas  
Intermediate Power Plant  
Performance Review Plan  
January, 2021 through December, 2021**

Sykes Exhibit 6  
Schedule 10

OFFICIAL COPY

JUN 27 2022

**Cliffside Station**

<b>Units</b>	<b>Unit 6</b>
(A) MDC (mW)	849
(B) Period Hrs	8,760
(C) Net Generation (mWh)	4,021,882
(D) Net mWh Possible in Period	7,437,240
(E) Equivalent Availability (%)	74.43
(F) Output Factor (%)	72.44
(G) Capacity Factor (%)	54.08

Notes:

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



I/A  
**Duke Energy Carolinas  
Peaking Power Plant  
Performance Review Plan  
January, 2021 through December, 2021**

**Cliffside Station**

<b>Units</b>	<b>Unit 5</b>
(A) MDC (mW)	546
(B) Period Hrs	8,760
(C) Net Generation (mWh)	729,303
(D) Net mWh Possible in Period	4,782,960
(E) Equivalent Availability (%)	42.38
(F) Output Factor (%)	37.28
(G) Capacity Factor (%)	15.25

Notes:

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

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Proposed Nuclear Capacity Factor  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Workpaper 1

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs	9,185,657	9,129,849	9,990,936	9,257,839	6,686,733	7,360,722	7,473,786	59,085,520
Cost (Gross of Joint Owners)	\$ 56,075,776	\$ 52,811,775	\$ 55,286,006	\$ 50,528,496	\$ 38,964,977	\$ 42,478,337	\$ 44,926,459	\$ 341,071,825
\$/MWh	6.1047	5.7845	5.5336	5.4579	5.8272	5.7709	6.0112	
<b>Avg \$/MWh</b>		<b>5.7725</b>						
<b>Cents per kWh</b>		<b>0.5773</b>						

**Sept 2022 -  
August 2023**

<b>MDC</b>			
CATA_UN01	Catawba	MW	1,160.0
CATA_UN02	Catawba	MW	1,150.1
MCGU_UN01	McGuire	MW	1,158.0
MCGU_UN02	McGuire	MW	1,157.6
OCONEE_UN01	Oconee	MW	847.0
OCONEE_UN02	Oconee	MW	848.0
OCONEE_UN03	Oconee	MW	859.0
			<u>7,179.7</u>
<b>Hours In Year</b>			8,760
<b>Generation GWhs</b>			
CATA_UN01	Catawba	GWh	9,186
CATA_UN02	Catawba	GWh	9,130
MCGU_UN01	McGuire	GWh	9,991
MCGU_UN02	McGuire	GWh	9,258
OCONEE_UN01	Oconee	GWh	6,687
OCONEE_UN02	Oconee	GWh	7,361
OCONEE_UN03	Oconee	GWh	7,474
			<u>59,086</u>
<b>Proposed Nuclear Capacity Factor</b>			93.94%

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 NERC 5 Year Average Nuclear Capacity Factor  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 2

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs with NERC applied	9,295,832	9,216,497	9,279,804	9,276,599	6,911,469	6,919,629	7,009,388	57,909,218
Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760
MDC	1,160.0	1,150.1	1,158.0	1,157.6	847.0	848.0	859.0	7,179.7
Capacity factor	91.48%	91.48%	91.48%	91.48%	93.15%	93.15%	93.15%	92.07%
Cost	\$ 53,660,292	\$ 53,202,329	\$ 53,567,774	\$ 53,549,271	\$ 39,896,533	\$ 39,943,636	\$ 40,461,773	\$ 334,281,608

Avg \$/MWh **5.7725**  
 Cents per kWh **0.5773**

2016-2020	Capacity Rating	NCF Rating	Weighted Average
Oconee 1	847.0	93.15	10.99%
Oconee 2	848.0	93.15	11.00%
Oconee 3	859.0	93.15	11.14%
McGuire 1	1,158.0	91.48	14.75%
McGuire 2	1,157.6	91.48	14.75%
Catawba 1	1,160.0	91.48	14.78%
Catawba 2	1,150.1	91.48	14.65%
	<u>7,179.7</u>		<u>92.07%</u>

Wtd Avg on Capacity Rating

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 North Carolina Generation and Purchased Power in MWhs  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Resource Type	Sept 2022 - August 2023	
NUC Total (Gross)	59,085,520	
COAL Total	9,117,091	
Gas CT and CC total (Gross)	29,962,094	
Run of River	4,980,701	
Net pumped Storage	(3,411,289)	
Total Hydro	1,569,412	
Catawba Joint Owners	(14,848,200)	
Lee CC Joint Owners	(876,000)	
DEC owned solar	364,048	
Total Generation		84,373,966
Purchases for REPS Compliance	1,376,121	
Qualifying Facility Purchases - Non-REPS compliance	2,705,790	
Other Purchases	11,994	
Allocated Economic Purchases	610,715	
Joint Dispatch Purchases	4,735,740	
	9,440,360	
Total Generation and Purchased Power		93,814,326
Fuel Recovered Through Intersystem Sales	(1,964,801)	

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected Fuel and Fuel Related Costs  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Resource Type	Sept 2022 - August 2023	
Nuclear Total (Gross)	\$ 341,071,825	
COAL Total	292,853,648	
Gas CT and CC total (Gross)	932,067,312	
Catawba Joint Owner costs	(85,734,604)	
CC Joint Owner costs	(20,639,342)	
Non-Economic Fuel Expense Recovered through Reimbursement	(14,027,557)	
Reagents and gain/loss on sale of By-Products	9,519,806	Workpaper 9
Purchases for REPS Compliance - Energy	66,782,210	
Purchases for REPS Compliance - Capacity	14,610,064	
Purchases of Qualifying Facilities - Energy	40,652,503	
Purchases of Qualifying Facilities - Capacity	8,445,498	
Other Purchases	7,489,994	
JDA Savings Shared	20,748,035	Workpaper 5
Allocated Economic Purchase cost	14,263,480	Workpaper 5
Joint Dispatch purchases	108,842,049	Workpaper 6
<b>Total Purchases</b>	281,833,833	
<b>Fuel Expense recovered through intersystem sales</b>	(66,325,343)	Workpaper 5
<b>Total System Fuel and Fuel Related Costs</b>	<b>\$ 1,670,619,578</b>	

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected Joint Dispatch Fuel Impacts  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Positive numbers represent costs to ratepayers, Negative numbers represent removal of costs to ratepayers

	Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment	
	DEP	DEC	DEP	DEC	DEP	DEC	DEP	DEC
9/1/2022	\$ 2,677,577	\$ 3,781,762	\$ (395,675)	\$ (452,046)	\$ (1,193,008)	\$ 1,193,008	\$ 136,476	\$ (136,476)
10/1/2022	\$ 542,827	\$ 803,362	\$ (661,032)	\$ (762,575)	\$ 3,557,663	\$ (3,557,663)	\$ 1,505,004	\$ (1,505,004)
11/1/2022	\$ 695,591	\$ 1,037,984	\$ (1,296,867)	\$ (557,594)	\$ (13,651,324)	\$ 13,651,324	\$ (2,905,662)	\$ 2,905,662
12/1/2022	\$ 569,647	\$ 813,687	\$ (4,426,520)	\$ (2,671,233)	\$ (8,969,486)	\$ 8,969,486	\$ (1,818,339)	\$ 1,818,339
1/1/2023	\$ 717,874	\$ 1,045,814	\$ (9,234,760)	\$ (8,881,053)	\$ (10,170,634)	\$ 10,170,634	\$ (3,592,449)	\$ 3,592,449
2/1/2023	\$ 158,723	\$ 222,173	\$ (7,642,791)	\$ (9,248,399)	\$ (5,978,839)	\$ 5,978,839	\$ (1,638,766)	\$ 1,638,766
3/1/2023	\$ 159,011	\$ 226,144	\$ (2,542,480)	\$ (1,638,517)	\$ (11,192,203)	\$ 11,192,203	\$ (2,501,768)	\$ 2,501,768
4/1/2023	\$ 956,508	\$ 1,344,592	\$ (1,195,044)	\$ (315,259)	\$ (3,210,699)	\$ 3,210,699	\$ (1,096,821)	\$ 1,096,821
5/1/2023	\$ 270,733	\$ 388,566	\$ (1,797,811)	\$ (767,211)	\$ (5,555,240)	\$ 5,555,240	\$ (2,753,841)	\$ 2,753,841
6/1/2023	\$ 1,051,586	\$ 1,467,004	\$ (701,390)	\$ (742,280)	\$ (2,897,748)	\$ 2,897,748	\$ (1,195,439)	\$ 1,195,439
7/1/2023	\$ 867,969	\$ 1,183,718	\$ (953,263)	\$ (1,239,118)	\$ (5,539,686)	\$ 5,539,686	\$ (3,293,157)	\$ 3,293,157
8/1/2023	\$ 1,368,896	\$ 1,948,674	\$ (968,553)	\$ (940,559)	\$ (5,931,346)	\$ 5,931,346	\$ (1,593,273)	\$ 1,593,273

Sept 22 - Aug 23 \$ 14,263,480 \$ (28,215,845) \$ 70,732,550 \$ 20,748,035

rounding differences may occur

\$ 108,842,049 Workpaper 6 - Transfer - Purchases  
 \$ (38,109,498) Workpaper 6 - Transfer - Sales  
 \$ 70,732,550 Sept 22-Aug 23 Net Fuel Transfer Payment

\$ (38,109,498) Workpaper 6 - Transfer - Sales  
 \$ (28,215,845) Sept 22-Aug 23 Economic Sales Cost  
 \$ (66,325,343) Total Fuel expense recovered through intersystem sales

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Merger Payments  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Workpaper 6

	Transfer Projection		Purchase Allocation Delta		Purchase	Sale	Fossil Gen Cost		Sale	Purchase
	PECtoDEC	DECtoPEC	PEC	DEC	Adjusted Transfer		PEC	DEC	Pre-Net Payments	
					PECtoDEC	DECtoPEC			PECtoDEC	DECtoPEC
9/1/2022	253,674	164,537	(35,758)	35,758	253,674	200,295	\$ 29.07	\$ 30.86	\$ 6,180,396	\$ 7,373,404
10/1/2022	212,025	305,749	(12,976)	12,976	212,025	318,726	\$ 27.42	\$ 29.40	\$ 9,371,770	\$ 5,814,107
11/1/2022	637,224	24,450	(141)	141	637,224	24,591	\$ 22.69	\$ 32.95	\$ 810,289	\$ 14,461,612
12/1/2022	387,962	37,723	(4,500)	4,500	387,962	42,223	\$ 26.82	\$ 34.00	\$ 1,435,605	\$ 10,405,091
1/1/2023	392,052	31,019	(2,330)	2,330	392,052	33,350	\$ 28.90	\$ 34.73	\$ 1,158,324	\$ 11,328,958
2/1/2023	268,628	41,858	(177)	177	268,628	42,035	\$ 27.60	\$ 34.15	\$ 1,435,273	\$ 7,414,112
3/1/2023	574,004	66,898	(447)	447	574,004	67,344	\$ 23.22	\$ 31.75	\$ 2,137,998	\$ 13,330,201
4/1/2023	385,453	158,440	(17,432)	17,432	385,453	175,872	\$ 19.76	\$ 25.05	\$ 4,405,256	\$ 7,615,955
5/1/2023	492,081	72,823	(5,284)	5,284	492,081	78,107	\$ 15.12	\$ 24.14	\$ 1,885,732	\$ 7,440,972
6/1/2023	343,644	136,582	3,192	(3,192)	346,836	136,582	\$ 18.88	\$ 26.73	\$ 3,650,423	\$ 6,548,171
7/1/2023	369,531	98,967	7,217	(7,217)	376,748	98,967	\$ 22.05	\$ 27.97	\$ 2,768,573	\$ 8,308,259
8/1/2023	393,768	106,684	15,285	(15,285)	409,053	106,684	\$ 21.52	\$ 26.90	\$ 2,869,860	\$ 8,801,206
Sept 22 - Aug 23	4,710,046	1,245,731	(53,351)	53,351	4,735,740	1,324,776			\$ 38,109,498	\$ 108,842,049
									Net Pre-Net Payments	\$ 70,732,550

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 Proposed Nuclear Capacity Factor of 93.94%  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Fall 2021 Forecast  
 Billed Sales Forecast  
 Sales Forecast - MWhs (000)

		Projected sales for the Billing Period	Remove impact of SC DERP Net Metered Generation	Adjusted Sales
North Carolina:				
	Residential	22,809,193		22,809,193
	General	22,983,240		22,983,240
	Industrial	12,202,704		12,202,704
	Lighting	239,297		239,297
	NC RETAIL	58,234,434	-	58,234,434
South Carolina:				
	Residential	6,851,656	133,318	6,984,975
	General	5,765,026	42,173	5,807,199
	Industrial	8,959,835	429	8,960,264
	Lighting	39,929	-	39,929
	SC RETAIL	21,616,446	175,921	21,792,367
Total Retail Sales				
	Residential	29,660,849	133,318	29,794,168
	General	28,748,266	42,173	28,790,439
	Industrial	21,162,539	429	21,162,968
	Lighting	279,226	-	279,226
	Retail Sales	79,850,880	175,921	80,026,801
	Wholesale	8,106,092	-	8,106,092
	Projected System MWH Sales for Fuel Factor	87,956,972	175,921	88,132,893
	NC as a percentage of total	66.21%		66.08%
	SC as a percentage of total	24.58%		24.73%
	Wholesale as a percentage of total	9.22%		9.20%
		100.00%		100.00%
<b>SC Net Metering allocation adjustment</b>				
	Total projected SC NEM MWhs		175,921	
	Marginal fuel rate per MWh for SC NEM		\$ 26.07	
	Fuel benefit to be directly assigned to SC Retail		\$ 4,586,518	
	System Fuel Expense	\$ 1,670,619,578		Sykes Exhibit 2 Schedule 1 Page 1 of 3
	Fuel benefit to be directly assigned to SC Retail	\$ 4,586,518		
	Total Fuel Costs for Allocation	\$ 1,675,206,096		Sykes Exhibit 2 Schedule 1 Page 3 of 3, L5

Reconciliation	System	NC Retail Customers	Wholesale	South Carolina Retail	
	Total system fuel expense from Sykes Exhibit 2 Schedule 1 Page 1	\$ 1,670,619,578			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563				
Other fuel costs	\$ 1,647,564,015				
SC Net Metering Fuel Allocation adjustment	\$ 4,586,518				
Jurisdictional fuel costs after adj.	\$ 1,652,150,533				
<b>Allocation to states/classes</b>		66.08%	9.20%	24.73%	
Jurisdictional fuel costs	\$ 1,652,150,533	\$ 1,091,670,180	\$ 151,957,842	\$ 408,522,511	66.98%
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,518)		\$ -	\$ (4,586,518)	
Total system actual fuel costs	\$ 1,647,564,015	\$ 1,091,670,180	\$ 151,957,842	\$ 403,935,993	
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,441,918			
Total system fuel expense from Sykes Exhibit 2 Schedule 1 Page 1	\$ 1,670,619,578	\$ 1,107,112,098			

Exh.2, Sch. 1 page 3, Line 13

rounding differences may occur



Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Fall 2021 Forecast  
 Billed Sales Forecast - Normalized Test Period Sales  
 Sales Forecast - MWhs (000)

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove impact of SC DERP Net Metered generation	Normalized Test Period Sales
NC RETAIL	58,067,962	(23,093)	413,425	-	58,458,294
SC RETAIL	20,481,464	78,665	133,245	175,921	20,869,295
Wholesale	8,002,184	73,415	49,334	-	8,124,933
<b>Normalized System MWH Sales for Fuel Factor</b>	<b>86,551,610</b>	<b>128,987</b>	<b>596,003</b>	<b>175,921</b>	<b>87,452,521</b>
NC as a percentage of total	<b>67.09%</b>				<b>66.85%</b>
SC as a percentage of total	23.66%				23.86%
Wholesale as a percentage of total	9.25%				9.29%
	<u>100.00%</u>				<u>100.00%</u>

**SC Net Metering allocation adjustment**

Total projected SC NEM MWhs	175,921
Marginal fuel rate per MWh for SC NEM	\$ 26.07
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,518

System Fuel Expense	\$ 1,648,765,072	Sykes Exhibit 2 Schedule 2 Page 1 of 3
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,518	
Total Fuel Costs for Allocation	\$ 1,653,351,591	Sykes Exhibit 2 Schedule 2 Page 3 of 3, L5

Reconciliation	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from Sykes Exhibit 2 Schedule 2 Page 1	\$ 1,648,765,072			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563			
Other fuel costs	\$ 1,625,709,510			
SC Net Metering Fuel Allocation adjustment	\$ 4,586,518			
Jurisdictional fuel costs after adj.	\$ 1,630,296,028			
Allocation to states/classes		66.85%	9.29%	23.86%
Jurisdictional fuel costs	\$ 1,630,296,028	\$ 1,089,852,895	\$ 151,454,501	\$ 388,988,632
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,518)	\$ -	\$ -	\$ (4,586,518)
Total system actual fuel costs	\$ 1,625,709,510	\$ 1,089,852,895	\$ 151,454,501	\$ 384,402,114
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,441,918		
Total system fuel expense from Sykes Exhibit 2 Schedule 2 Page 1	\$ 1,648,765,072	\$ 1,105,294,813		

Exh. 2, Sch 2 page 3, Line 13

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 NERC 5 Year Average Nuclear Capacity Factor of 92.07%  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 7b

Fall 2021 Forecast  
 Billed Sales Forecast  
 Sales Forecast - MWhs (000)

	Projected sales for the Billing Period	Remove impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:			
Residential	22,809,193		22,809,193
General	22,983,240		22,983,240
Industrial	12,202,704		12,202,704
Lighting	239,297		239,297
NC RETAIL	58,234,434	-	58,234,434
South Carolina:			
Residential	6,851,656	133,318	6,984,975
General	5,765,026	42,173	5,807,199
Industrial	8,959,835	429	8,960,264
Lighting	39,929	0	39,929
SC RETAIL	21,616,446	175,921	21,792,367
Total Retail Sales			
Residential	29,660,849	133,318	29,794,167
General	28,748,266	42,173	28,790,440
Industrial	21,162,539	429	21,162,968
Lighting	279,226	-	279,226
Retail Sales	79,850,880	175,921	80,026,801
Wholesale	8,106,092	-	8,106,092
<b>Projected System MWh Sales for Fuel Factor</b>	<b>87,956,972</b>	<b>175,921</b>	<b>88,132,893</b>
NC as a percentage of total	<b>66.21%</b>		<b>66.08%</b>
SC as a percentage of total	24.58%		24.73%
Wholesale as a percentage of total	9.22%		9.20%
	100.01%		100.00%

**SC Net Metering allocation adjustment**

Total projected SC NEM MWhs 175,921  
 Marginal fuel rate per MWh for SC NEM \$ 26.07  
 Fuel benefit to be directly assigned to SC Retail \$ 4,586,511

System Fuel Expense \$ 1,693,825,422 Sykes Exhibit 2 Schedule 3 Page 1 of 3  
 Fuel benefit to be directly assigned to SC Retail \$ 4,586,511  
 Total Fuel Costs for Allocation \$ 1,698,411,934 Sykes Exhibit 2 Schedule 3 Page 3 of 3, Line 5

**Reconciliation**

	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from Sykes Exhibit 2 Schedule 3 Page 1	\$ 1,693,825,422			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563			
Other fuel costs	\$ 1,670,769,860			
SC Net Metering Fuel Allocation adjustment	\$ 4,586,511			
Jurisdictional fuel costs after adj.	\$ 1,675,356,371			
Allocation to states/classes		66.08%	9.20%	24.73%
Jurisdictional fuel costs	\$ 1,675,523,907	\$ 1,107,075,490	\$ 154,132,786	\$ 414,315,631
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,511)		\$ -	\$ (4,586,511)
Total system actual fuel costs	\$ 1,670,937,395	\$ 1,107,075,490	\$ 154,132,786	\$ 409,729,119
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,441,918		
Total system fuel expense from Sykes Exhibit 2 Schedule 3 Page 1	\$ 1,693,992,958	\$ 1,122,517,408		

Exh. 2, Sch.3 page 3, Line 13

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Annualized Revenue  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 8

	January 2022 Actuals			Normalized Sales	Total Annualized Revenues
	Revenue	kWh Sales	Cents/ kWh	Sykes Exhibit 4	
	(a)	(b)	(a)/(b) *100 = (c)	(d)	
Residential	\$ 209,556,609	2,129,408,268	9.8411	22,961,890	\$ 2,259,696,240
General	\$ 137,324,675	1,921,732,056	7.1459	23,202,419	\$ 1,658,017,092
Industrial	\$ 51,372,485	937,750,891	5.4783	12,293,985	\$ 673,497,148
<b>Total</b>	<b>\$ 398,253,769</b>	<b>4,988,891,215</b>		<b>58,458,294</b>	<b>\$ 4,591,210,481</b>

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected Reagents and ByProducts  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 9

Reagent and ByProduct projections

Date	Ammonia	Urea	Limestone	Magnesium Hydroxide	Calcium Carbonate	Lime	Reagent Cost	Gypsum (Gain)/ Loss	Ash (Gain)/Loss	Steam (Gain)/Loss	Sale of By-Products (Gain)/Loss
9/1/2022	\$ 108,717	\$ 13,489	\$ 449,691	\$ 48,393	\$ 29,036	\$ 34,615	\$ 683,941	\$ 128,362	\$ (74,398)	\$ (226,533)	\$ (172,570)
10/1/2022	\$ 51,960	\$ 6,447	\$ 214,926	\$ 26,942	\$ 16,165	\$ 34,615	\$ 351,056	\$ 61,400	\$ (31,726)	\$ (223,486)	\$ (193,812)
11/1/2022	\$ 79,604	\$ 9,877	\$ 329,272	\$ 36,588	\$ 21,953	\$ 34,615	\$ 511,909	\$ 84,600	\$ (43,313)	\$ (220,444)	\$ (179,157)
12/1/2022	\$ 314,933	\$ 39,076	\$ 1,302,676	\$ 112,128	\$ 67,277	\$ 34,615	\$ 1,870,705	\$ 386,006	\$ (232,116)	\$ (217,449)	\$ (63,559)
1/1/2023	\$ 413,327	\$ 51,284	\$ 1,709,669	\$ 144,939	\$ 86,964	\$ 34,615	\$ 2,440,799	\$ 512,709	\$ (261,016)	\$ (214,680)	\$ 37,013
2/1/2023	\$ 337,638	\$ 41,893	\$ 1,396,591	\$ 110,882	\$ 66,529	\$ 34,615	\$ 1,988,148	\$ 415,640	\$ (237,071)	\$ (211,979)	\$ (33,410)
3/1/2023	\$ 106,399	\$ 13,202	\$ 440,102	\$ 49,926	\$ 29,955	\$ 34,615	\$ 674,199	\$ 115,952	\$ (59,337)	\$ (209,446)	\$ (152,831)
4/1/2023	\$ 55,930	\$ 6,940	\$ 231,348	\$ 31,061	\$ 18,637	\$ 34,615	\$ 378,532	\$ 53,252	\$ (22,526)	\$ (207,253)	\$ (176,528)
5/1/2023	\$ 33,535	\$ 4,161	\$ 138,712	\$ 24,580	\$ 14,748	\$ 34,615	\$ 250,351	\$ 32,046	\$ (8,814)	\$ (206,220)	\$ (182,988)
6/1/2023	\$ 81,768	\$ 10,146	\$ 338,222	\$ 42,487	\$ 25,492	\$ 34,615	\$ 532,731	\$ 91,664	\$ (49,255)	\$ (205,355)	\$ (162,945)
7/1/2023	\$ 115,903	\$ 14,381	\$ 479,414	\$ 54,842	\$ 32,905	\$ 34,615	\$ 732,059	\$ 132,485	\$ (71,586)	\$ (204,536)	\$ (143,637)
8/1/2023	\$ 108,411	\$ 13,451	\$ 448,427	\$ 49,538	\$ 29,723	\$ 34,615	\$ 684,165	\$ 112,582	\$ (63,166)	\$ (203,781)	\$ (154,364)
	\$ 1,808,126	\$ 224,347	\$ 7,479,051	\$ 732,305	\$ 439,383	\$ 415,382	\$ 11,098,593	\$ 2,126,699	\$ (1,154,325)	\$ (2,551,161)	\$ (1,578,787)

rounding differences may occur

Total Reagent cost and Sale of By-products \$ 9,519,806

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2021  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Workpaper 10

Line No.	Description	Forecast \$	(Over)/Under Collection \$	Total \$
1	Amount in current docket	100,803,928	13,526,437	114,330,365
2	Amount in Sub 1250, prior year docket	102,740,263	(4,999,624)	97,740,638
3	Increase/(Decrease)	(1,936,334)	18,526,061	16,589,727
4	2.5% of 2021 NC retail revenue of \$4,720,136,851			118,003,421
	Excess of purchased power growth over 2.5% of revenue			0
<b>E-7, Sub 1263</b>				
WP 4	Purchases for REPS Compliance - Energy	66,782,210	66.08%	44,126,819
WP 4	Purchases for REPS Compliance - Capacity	14,610,064	66.98%	9,785,379
WP 4	Purchases	7,489,994	66.08%	4,949,066
WP 4	QF Energy	40,652,503	66.08%	26,861,429
WP 4	QF Capacity	8,445,498	66.98%	5,656,539
WP 4	Allocated Economic Purchase cost	14,263,480	66.08%	9,424,695
		152,243,749		100,803,928
<b>E-7, Sub 1250</b>				
	Purchases for REPS Compliance	62,808,851	65.99%	41,447,561
	Purchases for REPS Compliance Capacity	13,866,978	66.90%	9,276,635
	Purchases	2,586,674	65.99%	1,706,946
	QF Energy	53,822,291	65.99%	35,517,330
	QF Capacity	11,169,971	66.90%	7,472,410
	Allocated Economic Purchase cost	11,091,651	65.99%	7,319,380
		155,346,415		102,740,263

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Sykes Workpaper 10a

	2021	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	12 ME
System KWH Sales - Sch 4, Adjusted		8,623,321,816	7,033,781,083	6,170,273,584	6,357,924,869	5,750,592,351	7,218,972,840	8,473,666,049	8,688,276,000	8,107,525,420	6,609,883,548	6,537,708,709	7,191,590,664	86,763,516,933
NC Retail KWH Sales - Sch 4		5,785,766,552	4,705,197,397	4,216,101,608	4,307,482,408	3,784,759,966	4,813,117,777	5,540,576,171	5,890,178,638	5,517,650,819	4,297,619,492	4,396,624,370	4,888,703,073	58,143,778,271
NC Retail % of Sales, Adjusted (Calc)		67.09%	66.89%	68.33%	67.75%	65.82%	66.67%	65.39%	67.79%	68.06%	65.02%	67.25%	67.98%	67.01%
NC retail production plant %		66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%
<b>Fuel and Fuel related component of purchased power</b>														
System Actual \$ - Sch 3 Fuel\$:	\$	14,110,987	\$ 21,997,962	\$ 7,288,155	\$ 1,159,999	\$ 6,909,766	\$ 19,650,947	\$ 27,256,372	\$ 22,941,922	\$ 20,301,410	\$ 27,877,777	\$ 27,842,536	\$ 26,295,173	\$ 223,633,006
System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases		1,908,455	2,653,190	897,843	1,159,946	1,043,015	1,716,177	3,233,998	2,658,287	1,580,193	2,101,644	2,163,509	2,417,594	23,533,851
System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance		3,836,471	3,851,010	3,578,469	1,634,328	5,557,142	6,244,501	5,777,306	6,144,771	5,617,037	5,684,750	4,972,836	4,406,882	57,305,503
System Actual\$ - Sch 3 Fuel-related\$; SC DERP		148,221	63,773	117,353	217,851	155,453	263,492	427,484	260,031	242,117	236,248	246,176	205,494	2,583,692
System Actual \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases		2,756,782	2,455,383	2,198,548	2,656,105	2,051,181	3,609,263	3,393,224	3,761,968	2,668,737	2,679,082	2,593,637	2,343,504	33,167,413
Total System Economic & QF\$		22,760,916	31,021,318	14,080,368	6,828,229	15,716,557	31,484,380	40,088,384	35,766,979	30,409,494	38,579,500	37,818,693	35,668,647	340,223,465
<b>Less:</b>														
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$	13,085,320	\$ 20,311,355	\$ 6,186,575	\$ 12,225	\$ 6,203,819	\$ 19,379,239	\$ 26,072,774	\$ 21,770,863	\$ 19,434,801	\$ 26,816,502	\$ 23,378,784	\$ 23,491,467	\$ 206,143,723
Total System Economic \$ without Native Load Transfers	\$	9,675,596	\$ 10,709,964	\$ 7,893,793	\$ 6,816,004	\$ 7,306,104	\$ 8,232,386	\$ 14,015,610	\$ 13,996,116	\$ 10,974,693	\$ 11,762,998	\$ 14,439,909	\$ 12,177,179	\$ 128,000,354
NC Actual \$ (Calc)	\$	6,491,783	\$ 7,164,353	\$ 5,393,769	\$ 4,617,830	\$ 4,808,522	\$ 5,488,793	\$ 9,164,222	\$ 9,488,606	\$ 7,468,928	\$ 7,648,076	\$ 9,710,873	\$ 8,277,809	\$ 85,723,565
Billed rate (c/kWh):		0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1363	0.1357	0.1357	0.1357	
Billed \$:	\$	7,911,008	\$ 6,433,522	\$ 5,764,770	\$ 5,889,717	\$ 5,174,987	\$ 6,581,084	\$ 7,575,754	\$ 8,053,773	\$ 7,518,618	\$ 5,832,583	\$ 5,966,949	\$ 6,634,781	\$ 79,337,545
(Over)/ Under \$:	\$	(1,419,225)	\$ 730,832	\$ (371,001)	\$ (1,271,887)	\$ (366,465)	\$ (1,092,291)	\$ 1,588,468	\$ 1,434,833	\$ (49,690)	\$ 1,815,493	\$ 3,743,924	\$ 1,643,028	\$ 6,386,020
<b>Capacity component of purchased power</b>														
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$	430,619	\$ 430,619	\$ 215,311	\$ 215,310	\$ 322,964	\$ 1,399,512	\$ 3,229,644	\$ 3,229,644	\$ 645,929	\$ 215,310	\$ 215,310	\$ 215,310	\$ 10,765,481
System Actual \$ - Capacity component of Purchased Power for REPS Compliance		679,198	657,904	611,495	370,864	1,021,112	874,770	880,403	2,930,150	2,610,093	2,651,828	2,162,592	642,188	16,092,597
System Actual \$ - Capacity component of HB589 Purpa QF purchases		401,588	376,607	536,828	347,396	110,548	427,589	1,222,705	1,697,840	1,371,802	1,324,805	834,474	281,956	8,934,138
System Actual \$ - Capacity component of SC DERP		14,999	7,491	12,697	15,442	14,837	24,880	38,885	24,278	22,766	22,049	24,646	19,907	242,878
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$	1,526,405	\$ 1,472,621	\$ 1,376,331	\$ 949,012	\$ 1,469,461	\$ 2,726,751	\$ 5,371,637	\$ 7,881,912	\$ 4,650,590	\$ 4,213,992	\$ 3,237,022	\$ 1,159,361	\$ 36,035,094
NC Actual \$ (Calc) (1)	\$	1,022,340	\$ 986,317	\$ 921,825	\$ 635,619	\$ 984,201	\$ 1,826,295	\$ 3,597,760	\$ 5,279,066	\$ 3,114,825	\$ 2,822,404	\$ 2,168,059	\$ 776,505	\$ 24,135,215
Billed rate (c/kWh):		0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0291	0.0289	0.0289	0.0289	
Billed \$:	\$	1,698,557	\$ 1,381,329	\$ 1,237,743	\$ 1,264,570	\$ 1,111,112	\$ 1,413,012	\$ 1,626,576	\$ 1,729,210	\$ 1,608,069	\$ 1,241,743	\$ 1,270,349	\$ 1,412,529	\$ 16,994,798
(Over)/Under \$:	\$	(676,218)	\$ (395,012)	\$ (315,918)	\$ (628,950)	\$ (126,911)	\$ 413,283	\$ 1,971,184	\$ 3,549,856	\$ 1,506,756	\$ 1,580,661	\$ 897,710	\$ (636,024)	\$ 7,140,417
<b>TOTAL (Over)/ Under \$:</b>	<b>\$</b>	<b>(2,095,442)</b>	<b>\$ 335,820</b>	<b>\$ (686,918)</b>	<b>\$ (1,900,837)</b>	<b>\$ (493,375)</b>	<b>\$ (679,008)</b>	<b>\$ 3,559,653</b>	<b>\$ 4,984,689</b>	<b>\$ 1,457,065</b>	<b>\$ 3,396,154</b>	<b>\$ 4,641,634</b>	<b>\$ 1,007,004</b>	<b>\$ 13,526,437</b>

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

(1) January - May NC actual capacity shown herein is adjusted to reflect use of 2020 production plant allocation factor. Actual true-up related to allocator was made as prior period adjustment in May 2021 of Schedule 4.

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2020  
Docket E-7, Sub 1263

Sykes Workpaper 10b

2020	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	12 ME
System KWH Sales - Sch 4, Adjusted	7,193,812,943	7,229,160,762	6,557,632,220	5,948,571,625	5,649,816,171	6,745,745,153	8,113,658,335	8,454,195,025	7,632,668,505	6,227,418,819	7,077,137,814	6,283,453,698	83,113,271,070
NC Retail KWH Sales - Sch 4	4,799,050,153	4,852,514,770	4,419,004,658	4,009,530,882	3,737,497,506	4,445,349,080	5,381,133,760	5,679,285,065	5,143,265,080	4,161,108,724	4,768,316,561	4,115,807,397	55,511,863,636
NC Retail % of Sales, Adjusted (Calc)	66.71%	67.12%	67.39%	67.40%	66.15%	65.90%	66.32%	67.18%	67.38%	66.82%	67.38%	65.50%	66.79%
NC retail production plant %	67.55%	67.55%	67.55%	67.55%	67.55%	67.75%	67.75%	67.75%	67.75%	67.75%	67.75%	67.75%	67.71%
<b>Fuel and Fuel related component of purchased power</b>													
System Actual \$ - Sch 3 Fuel\$:	\$ 11,218,315	\$ 12,607,762	\$ 5,300,111	\$ 6,352,200	\$ 8,395,303	\$ 6,771,661	\$ 12,440,459	\$ 7,247,711	\$ 9,073,495	\$ 15,331,837	\$ 6,958,738	\$ 24,648,415	\$ 126,346,007
System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases	1,491,771	1,826,422	990,649	729,743	909,315	1,057,292	2,012,867	1,346,379	1,036,893	1,743,448	1,074,835	4,774,389	18,994,003
System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance	3,745,116	4,068,302	3,681,838	4,276,231	5,491,472	4,795,757	5,305,337	6,084,262	5,064,982	4,676,649	4,553,039	4,091,116	55,834,101
System Actual\$ - Sch 3 Fuel-related\$; SC DERP	13,291	13,282	28,563	39,932	44,069	110,923	38,018	129,601	69,181	87,074	68,782	37,283	679,999
System Actual \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases	2,051,485	2,097,916	2,123,359	2,681,961	3,213,134	2,547,168	2,552,543	2,889,199	2,519,264	2,799,837	2,863,763	2,568,618	30,908,248
Total System Economic & QF\$	18,519,978	20,613,684	12,124,520	14,080,067	18,053,293	15,282,801	22,349,224	17,697,152	17,763,815	24,638,845	15,519,157	36,119,821	232,762,358
<b>Less:</b>													
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 9,403,952	\$ 10,746,417	\$ 3,681,146	\$ 5,959,074	\$ 8,211,008	\$ 5,694,556	\$ 12,728,156	\$ 6,086,984	\$ 8,789,272	\$ 15,071,913	\$ 5,685,045	\$ 21,638,297	\$ 113,695,820
Total System Economic \$ without Native Load Transfers	\$ 9,116,026	\$ 9,867,267	\$ 8,443,374	\$ 8,120,993	\$ 9,842,285	\$ 9,588,245	\$ 9,621,068	\$ 11,610,168	\$ 8,974,543	\$ 9,566,932	\$ 9,834,112	\$ 14,481,524	\$ 119,066,539
NC Actual \$ (Calc)	\$ 6,081,374	\$ 6,623,322	\$ 5,689,753	\$ 5,473,813	\$ 6,510,923	\$ 6,318,516	\$ 6,380,877	\$ 7,799,377	\$ 6,047,486	\$ 6,392,544	\$ 6,625,865	\$ 9,485,733	\$ 79,429,582
Billed rate (c/kWh):	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1689	0.1689	0.1689	0.1689	
Billed \$:	\$ 7,356,944	\$ 7,438,905	\$ 6,774,334	\$ 6,146,611	\$ 5,729,584	\$ 6,814,720	\$ 8,249,278	\$ 8,706,344	\$ 8,689,317	\$ 7,030,008	\$ 8,055,859	\$ 6,953,473	\$ 87,945,377
(Over)/ Under \$:	\$ (1,275,570)	\$ (815,583)	\$ (1,084,581)	\$ (672,798)	\$ 781,339	\$ (496,204)	\$ (1,868,401)	\$ (906,967)	\$ (2,641,831)	\$ (637,464)	\$ (1,429,993)	\$ 2,532,260	\$ (8,515,795)
<b>Capacity component of purchased power</b>													
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$ 430,619	\$ 430,619	\$ 215,310	\$ 215,310	\$ 322,964	\$ 1,399,512	\$ 3,229,644	\$ 3,229,644	\$ 645,929	\$ 215,310	\$ 215,310	\$ 215,310	\$ 10,765,481
System Actual \$ - Capacity component of Purchased Power for REPS Compliance	645,345	680,159	573,260	641,154	778,381	625,715	2,302,254	2,743,308	2,223,872	1,950,062	637,418	610,344	14,411,272
System Actual \$ - Capacity component of HB589 Purpa QF purchases	264,275	306,973	236,219	277,976	283,502	204,320	1,125,235	1,384,219	1,116,138	1,010,084	297,176	256,193	6,762,310
System Actual \$ - Capacity component of SC DERP	1,869	1,868	12,351	6,569	4,675	15,765	4,866	18,466	9,471	10,816	8,919	5,142	100,777
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$ 1,342,109	\$ 1,419,619	\$ 1,037,140	\$ 1,141,008	\$ 1,389,523	\$ 2,245,312	\$ 6,661,999	\$ 7,375,637	\$ 3,995,410	\$ 3,186,272	\$ 1,158,823	\$ 1,086,989	\$ 32,039,840
NC Actual \$ (Calc) (1)	\$ 906,558	\$ 958,914	\$ 700,560	\$ 770,720	\$ 938,585	\$ 1,521,128	\$ 4,513,293	\$ 4,996,760	\$ 2,706,763	\$ 2,158,598	\$ 785,065	\$ 736,399	\$ 21,693,343
Billed rate (c/kWh):	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0328	0.0328	0.0328	0.0328	
Billed \$:	\$ 1,570,139	\$ 1,587,631	\$ 1,445,797	\$ 1,311,826	\$ 1,222,823	\$ 1,454,416	\$ 1,760,583	\$ 1,858,131	\$ 1,686,991	\$ 1,364,844	\$ 1,564,008	\$ 1,349,985	\$ 18,177,174
(Over)/Under \$:	\$ (663,581)	\$ (628,718)	\$ (745,237)	\$ (541,106)	\$ (284,239)	\$ 66,712	\$ 2,752,710	\$ 3,138,628	\$ 1,019,773	\$ 793,755	\$ (778,942)	\$ (613,586)	\$ 3,516,169
<b>TOTAL (Over)/ Under \$:</b>	<b>\$ (1,939,151)</b>	<b>\$ (1,444,300)</b>	<b>\$ (1,829,818)</b>	<b>\$ (1,213,904)</b>	<b>\$ 497,100</b>	<b>\$ (429,492)</b>	<b>\$ 884,309</b>	<b>\$ 2,231,661</b>	<b>\$ (1,622,059)</b>	<b>\$ 156,290</b>	<b>\$ (2,208,936)</b>	<b>\$ 1,918,674</b>	<b>\$ (4,999,624)</b>

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

(1) January - May NC actual capacity shown herein is adjusted to reflect use of 2019 production plant allocation factor. Actual true-up related to allocator was made as prior period adjustment in June 2020 of Schedule 4.

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Actual Sales by Jurisdiction - Subject to Weather  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Sykes Workpaper 11

Line #	Description	Reference	MWhs			% NC	% SC
			NORTH CAROLINA	SOUTH CAROLINA	TOTAL COMPANY		
1	Residential	Company Records	22,424,524	6,819,677	29,244,200	76.68	23.32
2	Total General Service	Company Records	23,396,396	5,297,993	28,694,389		
3	less Lighting and Traffic Signals		249,725	50,082	299,807		
4	General Service subject to weather		23,146,672	5,247,911	28,394,582	81.52	18.48
5	Industrial	Company Records	12,247,042	8,363,794	20,610,836	59.42	40.58
6	Total Retail Sales	1+2+5	58,067,962	20,481,464	78,549,426		
7	Total Retail Sales subject to weather	1+4+5	57,818,237	20,431,382	78,249,619	73.89	26.11

This does not exclude Greenwood and includes the impact of SC DERP net metering generation rounding differences may occur



Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Weather Normalization Adjustment  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Sykes Workpaper 12  
 Page 1

Line #	Description	REFERENCE	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
	<u>Residential</u>						
1	Total Residential		442,226	76.68	339,099	23.32	103,127
	<u>General Service</u>						
2	Total General Service		55,501	81.52	45,245	18.48	10,257
	<u>Industrial</u>						
3	Total Industrial		48,942	59.42	29,081	40.58	19,861
4	Total Retail	L1+ L2+ L3	546,669		413,425		133,245
5	Wholesale		49,334				
6	Total Company	L4 + L5	<u>596,003</u>		<u>413,425</u>		<u>133,245</u>

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Weather Normalization Adjustment by Class by Month  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Sykes Workpaper 12  
Page 2

	Residential	Commercial	Industrial	
2021	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	
JAN	(32,231)	(6,216)	-	
FEB	76,342	6,207	5,074	
MAR	(28,114)	-	-	
APR	87,225	-	-	
MAY	22,994	7,646	8,603	
JUN	5,003	2,379	1,202	
JUL	132,023	60,904	22,835	
AUG	115,041	51,399	31,162	
SEP	(100,540)	(54,870)	(24,544)	
OCT	(63,328)	(35,264)	(17,356)	
NOV	37,621	7,905	21,965	
DEC	190,190	15,412	-	
Total	<b>442,226</b>	<b>55,501</b>	<b>48,942</b>	<b>546,669</b>

Wholesale			
2021	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	(3,420)	1	Concord <sup>1</sup>
FEB	5,335	2	Dallas
MAR	(1,081)	3	Forest City
APR	-	4	Kings Mountain <sup>1</sup>
MAY	992	5	Due West
JUN	495	6	Prosperity <sup>2</sup>
JUL	14,107	7	Lockhart
AUG	10,393	8	Western Carolina University
SEP	(4,390)	9	City of Highlands
OCT	(983)	10	Haywood
NOV	8,219	11	Piedmont
DEC	19,667	12	Rutherford
		13	Blue Ridge
Total	<b>49,334</b>	14	Greenwood <sup>1</sup>

<sup>1</sup>Wholesale load is no longer being served by Duke as of December 2018.

<sup>2</sup>Wholesale load is no longer being served by Duke as of December 2019.

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Customer Growth Adjustment to kWh Sales  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Line	Estimation Method <sup>1</sup>	Rate Schedule	NC	SC	Wholesale	Total Company
			Proposed kWh <sup>1</sup> Adjustment	Proposed kWh Adjustment	Proposed kWh Adjustment	
1	Regression	Residential	198,267,663	64,686,596		
2						
3		<b>General Service (Excluding Lighting):</b>				
4	Customer	General Service Small and Large	(239,177,414)	(13,727,966)		
5	Regression	Miscellaneous	395,553	897,831		
6		Total General	(238,781,861)	(12,830,135)		
7						
8		<b>Lighting:</b>				
9	Regression	T & T2 (GL/FL/PL/OL) <sup>2</sup>	(902,695)	(70,408)		
10	Regression	TS	461,758	193,341		
11		Total Lighting	(440,937)	122,933		
12						
13		<b>Industrial:</b>				
14	Customer	I - Textile	675,995	3,411,534		
15	Customer	I - Nontextile	17,186,010	23,274,269		
16		Total Industrial	17,862,005	26,685,803		
17						
18						
19		Total	(23,093,129)	78,665,196	73,414,740	128,986,807

WP 13-2

## Notes:

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

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

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

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

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Customer Growth Adjustment to kWh Sales-Wholesale  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Sykes Workpaper 13  
 Page 2

Calculation of Customer Growth Adjustment to kWh Sales - Wholesale

Line No.	<u>Reference</u>	
1	Total System Resale (kWh Sales)	Company Records 9,405,969,890
2	Less Intersystem Sales	Exhibit 6, Sch 1 <u>1,241,221,539</u>
3	Total kWh Sales Excluding Intersystem Sales	L1 - L2 8,164,748,350
4	Residential Growth Factor	Line 8 <u>0.8992</u>
5	Adjustment to kWhs - Wholesale	L3 * L4 / 100 <u><u>73,414,740</u></u>
6	Total System Retail Residential kWh Sales	Company Records 29,244,200,232
7	2021 Proposed Adjustment kWh - Residential (NC+SC)	WP 13-1 262,954,259
8	Percent Adjustment	L7 / L6 * 100 0.8992

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Summary Comparison of Fuel and Fuel Related Cost Factors  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 1

Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
<b><u>Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1250)</u></b>						
1	Approved Fuel and Fuel Related Costs Factors	Input	1.5337	1.6895	1.7243	1.6414
2	EMF Increment (Decrement) cents/kWh	Input	(0.0282)	0.0476	0.1391	0.0353
3	EMF Interest Increment (Decrement) cents/kWh	Input	(0.0041)	0.0000	0.0000	0.0000
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	<b>1.5014</b>	<b>1.7371</b>	<b>1.8634</b>	<b>1.6767</b>
<b><u>Fuel and Fuel Related Cost Factors Required by Rule R8-55</u></b>						
5	Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales	Exh 2 Sch 2 pg 2	<b>2.4708</b>	<b>2.4401</b>	<b>2.4022</b>	<b>2.4497</b>
6	NERC 5 Year Average Nuclear Capacity Factor of 92.07% and Projected Period Sales	Exh 2 Sch 3 pg 2	<b>2.5199</b>	<b>2.4711</b>	<b>2.4308</b>	<b>2.4872</b>
<b><u>Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 93.94%</u></b>						
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	1.9686	1.7971	1.8197	1.8746
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0317	0.0246	0.0199	0.0264
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	2.0003	1.8217	1.8396	1.9010
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4863	0.6254	0.5726	0.5597
11	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	-	-
12	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	<b>2.4866</b>	<b>2.4471</b>	<b>2.4122</b>	<b>2.4607</b>

Note: Fuel factors exclude regulatory fee

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94%  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Exhibit 2  
Schedule 1  
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	59,085,520	0.5773	341,071,825
2	Coal	Workpaper 3 & 4	9,117,091	3.2121	292,853,648
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9			9,519,806
5	Total Fossil	Sum	39,079,185		1,234,440,766
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		-
9	Solar Distributed Generation	Workpaper 3	364,048		-
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	100,098,166		1,575,512,591
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,848,200)		(85,734,604)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum Lines 10-13	84,373,966		1,455,111,088
15	Purchased Power	Workpaper 3 & 4	9,440,360	2.7656	261,085,798
16	JDA Savings Shared	Workpaper 5			20,748,035
17	Total Purchased Power		9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,814,326	1.8515	1,736,944,921
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)	3.3757	(66,325,343)
20	Line losses and Company use	Line 22-Line 18-Line 19	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,670,619,578
22	Projected System MWh Sales for Fuel Factor	Workpaper 7	87,956,972		87,956,972
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.8994

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94%  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised 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	22,809,193	23,222,537	12,202,704	58,234,434
<b>Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class</b>						Amount
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2021 Production Plant Allocator	Input				66.68%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,373,745
7	2021 Production Plant Allocation Factors	Input	47.04%	37.14%	15.81%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2021 Production Plant Allocator	Line 6 * Line 7	\$ 7,232,527	\$ 5,710,002	\$ 2,431,215	\$ 15,373,745
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0317	0.0246	0.0199	0.0264
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.9686	1.7971	1.8197	1.8746
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0317	0.0246	0.0199	0.0264
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.0003	1.8217	1.8396	1.9010
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4863	0.6254	0.5726	0.5597
14	EMF Interest Increment (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	2.4866	2.4471	2.4122	2.4607

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
 Proposed Nuclear Capacity Factor of 93.94%  
 Test Period Ended December 31, 2021  
 Billing Period September 2022 - August 2023  
 Docket E-7, Sub 1263

Sykes Revised Exhibit 2  
 Schedule 1  
 Page 3 of 3

Line #	Rate Class	Projected Billing Period	Annual Revenue at	Allocate Fuel Costs	Increase/(Decrease)	Total Fuel Rate	Current Total Fuel Rate	Proposed Total Fuel
		MWh Sales	Current rates	Increase/(Decrease) to	as % of Annual	Increase/(Decrease)	(including Capacity and	Rate (including Capacity
		A	B	Customer Class	Revenue at Current		EMF) E-7, Sub 1250	and EMF)
		Workpaper 7	Workpaper 8	Line 25 as a % of Column B	Rates	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,809,193	\$ 2,259,696,240	\$ 224,708,128	9.94%	0.9852	1.5014	2.4866
2	General Service/Lighting	23,222,537	1,658,017,092	164,876,106	9.94%	0.7100	1.7371	2.4471
3	Industrial	12,202,704	673,497,148	66,973,729	9.94%	0.5488	1.8634	2.4122
4	NC Retail	58,234,434	\$ 4,591,210,481	\$ 456,557,963	9.94%			

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7	\$ 1,675,206,096	
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 1, Page 2	23,055,563	
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,652,150,533	
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7	88,132,893	
9	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
10	Allocation %	Line 9 / Line 8	66.08%	
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,091,670,180	
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 1, Page 2	15,373,745	
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,107,043,925	
14	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9010	
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.5597	
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000	
18	Total Proposed Composite Fuel Rate	Sum	2.4607	

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414	
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353	
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000	
22	Total Current Composite Fuel Rate	Sum	1.6767	
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.7840	
24	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434	
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 456,557,963	

Note: Rounding differences may occur



Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Fuel and Fuel Related Cost Factors Using:  
Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised 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	59,085,520	0.5773	341,071,825
2	Coal	Calculated	8,399,051	3.2121	269,789,214
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9	-		9,519,806
5	Total Fossil	Sum	38,361,146		1,211,376,332
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		
9	Solar Distributed Generation	Workpaper 3	364,048		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	99,380,126		1,552,448,157
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,848,200)		(85,734,604)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum	83,655,926		1,432,046,654
15	Purchased Power	Workpaper 3 & 4	9,440,360		261,085,798
16	JDA Savings Shared	Workpaper 5	-		20,748,035
17	Total Purchased Power	Sum	9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,096,286		1,713,880,487
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)		(66,325,343)
20	Line losses and Company use	Line 22 - Line 19 - Line 18	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,647,555,144
22	Normalized Test Period MWh Sales	Exhibit 4	87,238,932		87,238,932
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.8886

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Calculation of Fuel and Fuel Related Cost Factors Using:  
 Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
 Test Period Ended December 31, 2021  
 Billing Period September 2022 - August 2023  
 Docket E-7, Sub 1263

Sykes Revised 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	22,926,377	23,198,571	12,293,985	58,418,933
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2021 Production Plant Allocator	Input				66.68%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,373,745
7	2021 Production Plant Allocation Factors	Input	47.04%	37.14%	15.81%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2021 Production Plant Allocator	Line 6 * Line 7	\$ 7,232,527	\$ 5,710,002	\$ 2,431,215	\$ 15,373,745
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Normalized Test Period Sales	Line 8 / Line 1 / 10	0.0315	0.0246	0.0198	0.0263
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	1.9530	1.7901	1.8098	1.8637
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0315	0.0246	0.0198	0.0263
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	1.9845	1.8147	1.8296	1.8900
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4863	0.6254	0.5726	0.5597
14	EMF Interest Increment (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	2.4708	2.4401	2.4022	2.4497

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Uniform Percentage Average Bill Adjustment by Customer Class  
Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 2  
Schedule 2  
Page 3 of 3

Line #	Rate Class	Normalized Test Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/(Decrease) as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1250	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	D	E	F	G
		Exhibit 4	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,926,377	\$ 2,259,696,240	\$ 222,257,268	9.84%	0.9694	1.5014	2.4708
2	General Service/Lighting	23,198,571	\$ 1,658,017,092	163,077,825	9.84%	0.7030	1.7371	2.4401
3	Industrial	12,293,985	\$ 673,497,148	66,243,256	9.84%	0.5388	1.8634	2.4022
4	NC Retail	58,418,933	\$ 4,591,210,481	\$ 451,578,349				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7a	\$ 1,652,141,662					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 2, Page 2	23,055,563					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,629,086,100					
8	Normalized Test Period System MWh Sales for Fuel Factor	Workpaper 7a	87,414,853					
9	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,418,933					
10	Allocation %	Line 9 / Line 8	66.83%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,088,718,240					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 2, Page 2	15,373,745					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,104,091,985					
14	NC Retail Normalized Test Period MWh Sales	Line 9	58,418,933					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.8900					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.5597					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.4497					

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414					
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353					
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.6767					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.7730					
24	NC Retail Normalized Test Period MWh Sales	Exhibit 4	58,418,933					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 451,578,349					

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
NERC 5 Year Average Nuclear Capacity Factor of 92.07% and Projected Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised 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	57,909,218	0.5773	334,281,608
2	Coal	Calculated	9,997,788	3.2121	321,142,864
3	Gas CT and CC	Workpaper 3 & 4	29,962,094	3.1108	932,067,312
4	Reagents and Byproducts	Workpaper 9	-		9,519,806
5	Total Fossil	Sum	39,959,882		1,262,729,982
6	Hydro	Workpaper 3	4,980,701		
7	Net Pumped Storage	Workpaper 3	(3,411,289)		
8	Total Hydro	Sum	1,569,412		
9	Solar Distributed Generation	Workpaper 3	364,048		
10	Total Generation	Line 1 + Line 5 + Line 8 + Line 9	99,802,561		1,597,011,590
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(20,639,342)
12	Less Catawba Joint Owners	Calculated	(14,552,595)		(84,027,759)
13	Fuel expense recovered through reimbursement	Workpaper 4			(14,027,557)
14	Net Generation	Sum	84,373,966		1,478,316,932
15	Purchased Power	Workpaper 3 & 4	9,440,360		261,085,798
16	JDA Savings Shared	Workpaper 5	-		20,748,035
17	Total Purchased Power	Sum	9,440,360		281,833,833
18	Total Generation and Purchased Power	Line 14 + Line 17	93,814,326		1,760,150,766
19	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(1,964,801)		(66,325,343)
20	Line losses and Company use	Line 22 - Line 19 - Line 18	(3,892,553)		-
21	System Fuel Expense for Fuel Factor	Lines 18 + 19 + 20			1,693,825,422
22	Projected System MWh Sales for Fuel Factor	Workpaper 7b	87,956,972		87,956,972
23	Fuel and Fuel Related Costs cents/kWh	Line 21 / Line 22 / 10			1.9257

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
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 92.07% and Projected Period Sales  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised 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	22,809,193	23,222,537	12,202,704	58,234,434
<b>Calculation of Renewable Purchased Power Capacity Rate by Class</b>						<b>Amount</b>
2	Purchased Power for REPS Compliance - Capacity	Workpaper 4				\$ 14,610,064
3	QF Purchased Power - Capacity	Workpaper 4				8,445,498
4	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3				\$ 23,055,563
5	NC Portion - Jurisdictional % based on 2021 Production Plant Allocator	Input				66.68%
6	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5				\$ 15,373,745
7	2021 Production Plant Allocation Factors	Input	47.04%	37.14%	15.81%	100.00%
8	Renewable and QF Purchased Power - Capacity allocated on 2021 Production Plant Allocator	Line 6 * Line 7	\$ 7,232,527	\$ 5,710,002	\$ 2,431,215	\$ 15,373,745
9	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales	Line 8 / Line 1 / 10	0.0317	0.0246	0.0199	0.0264
<b>Summary of Total Rate by Class</b>						
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	2.0019	1.8211	1.8383	1.9011
11	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0317	0.0246	0.0199	0.0264
12	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.0336	1.8457	1.8582	1.9275
13	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4863	0.6254	0.5726	0.5597
14	EMF Interest Increment (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	2.5199	2.4711	2.4308	2.4872

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
 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 92.07% and Projected Period Sales  
 Test Period Ended December 31, 2021  
 Billing Period September 2022 - August 2023  
 Docket E-7, Sub 1263

Sykes Revised Exhibit 2  
 Schedule 3  
 Page 3 of 3

Line #	Rate Class	Projected Billing Period MWh Sales	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease)	Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1250	Proposed Total Fuel Rate (including Capacity and EMF)
		A	B	C	C / B = D	E	F	G
		Workpaper 7b	Workpaper 8	Line 25 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Sykes Exhibit 1	E + F = G
1	Residential	22,809,193	\$ 2,259,696,240	\$ 232,303,492	10.28%	1.0185	1.5014	2.5199
2	General Service/Lighting	23,222,537	\$ 1,658,017,092	\$ 170,449,087	10.28%	0.7340	1.7371	2.4711
3	Industrial	12,202,704	\$ 673,497,148	\$ 69,237,509	10.28%	0.5674	1.8634	2.4308
4	NC Retail	58,234,434	\$ 4,591,210,481	\$ 471,990,088				

**Total Proposed Composite Fuel Rate:**

5	Total Fuel Costs for Allocation	Workpaper 7b	\$ 1,698,411,934					
6	Total of Renewable and QF Purchased Power Capacity	Exhibit 2 Sch 3, Page 2	23,055,563					
7	System Other Fuel Costs	Line 5 - Line 6	\$ 1,675,356,371					
8	Adjusted Projected System MWh Sales for Fuel Factor	Workpaper 7b	88,132,893					
9	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
10	Allocation %	Line 9 / Line 8	66.08%					
11	NC Retail Other Fuel Costs	Line 7 * Line 10	\$ 1,107,075,490					
12	NC Renewable and QF Purchased Power - Capacity	Exhibit 2 Sch 3, Page 2	15,373,745					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 1,122,449,235					
14	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
15	Calculated Fuel Rate cents/kWh	Line 13 / Line 14 / 10	1.9275					
16	Proposed Composite EMF Rate cents/kWh	Exhibit 3 Page 1	0.5597					
17	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3 Page 1	0.0000					
18	Total Proposed Composite Fuel Rate	Sum	2.4872					

**Total Current Composite Fuel Rate - Docket E-7 Sub 1250:**

19	Current composite Fuel Rate cents/kWh	Sykes Exhibit 1	1.6414					
20	Current composite EMF Rate cents/kWh	Sykes Exhibit 1	0.0353					
21	Current composite EMF Interest Rate cents/kWh	Sykes Exhibit 1	0.0000					
22	Total Current Composite Fuel Rate	Sum	1.6767					
23	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 18 - Line 22	0.8105					
24	NC Retail Projected Billing Period MWh Sales	Line 4	58,234,434					
25	Increase/(Decrease) in Fuel Costs	Line 23 * Line 24 * 10	\$ 471,990,088					

Note: Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Proposed Composite  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 3  
Page 1 of 4

Line No.	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021			5,785,767	\$ 1,309,433	\$ -	\$ 1,309,433
2	February			4,705,197	\$ 24,172,571	\$ (1,105,173)	\$ 23,067,398
3	March <sup>(1)</sup>			4,216,102	\$ (1,280,088)	\$ -	\$ (1,280,088)
4	April			4,231,666	\$ (3,675,665)	\$ -	\$ (3,675,665)
5	May <sup>(1)</sup>			3,784,760	\$ 9,106,398	\$ -	\$ 9,106,398
6	June			4,813,118	\$ 15,273,578	\$ -	\$ 15,273,578
7	July			5,540,576	\$ 32,252,591	\$ -	\$ 32,252,591
8	August			5,890,179	\$ 37,907,835	\$ -	\$ 37,907,835
9	September			5,517,651	\$ 13,769,502	\$ -	\$ 13,769,502
10	October <sup>(1)</sup>			4,297,619	\$ 27,401,885	\$ -	\$ 27,401,885
11	November			4,396,624	\$ 64,806,647	\$ -	\$ 64,806,647
12	December			4,888,703	\$ 49,423,931	\$ -	\$ 49,423,931
13	<b>Total Test Period</b>			<b>58,067,962</b>	<b>\$ 270,468,622</b>	<b>\$ (1,105,173)</b>	<b>\$ 269,363,445</b>
14	<b>Adjustment to remove (Over)/Under Recovery - January-February 2021<sup>(2)</sup></b>				\$ 25,482,004	\$ (1,105,173)	\$ 24,376,831
15	January 2022				\$ 81,987,600	\$ -	\$ 81,987,600
16	<b>Total (Over)/Under Recovery - Update Period January 2022<sup>(3)</sup></b>				<b>\$ 81,987,600</b>	<b>\$ -</b>	<b>\$ 81,987,600</b>
17	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 326,974,214</b>
18	NC Retail Normalized Test Period MWh Sales					Exhibit 4	58,418,933
19	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.5597</b>

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 17.

<sup>(3)</sup> January 2022 is included for Commission review in accordance with NC Rule R8-55(d)(3). This period will be subject to review in the next annual fuel and fuel-related costs filing.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Residential  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 3  
Page 2 of 4

Line #	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.4543	1.6027	2,427,681	\$ (3,602,217)	\$ -	\$ (3,602,217)
2	February	1.8056	1.6027	2,047,050	\$ 4,154,380	\$ (396,210)	\$ 3,758,170
3	March <sup>(1)</sup>	1.2642	1.6027	1,996,845	\$ (7,158,737)	\$ -	\$ (7,158,737)
4	April	1.5283	1.6027	1,585,020	\$ (1,178,659)	\$ -	\$ (1,178,659)
5	May <sup>(1)</sup>	2.0368	1.6027	1,288,098	\$ 5,643,932	\$ -	\$ 5,643,932
6	June	1.9547	1.6027	1,774,699	\$ 6,246,872	\$ -	\$ 6,246,872
7	July	2.1114	1.6027	2,146,583	\$ 10,918,699	\$ -	\$ 10,918,699
8	August	2.2422	1.6027	2,212,544	\$ 14,149,173	\$ -	\$ 14,149,173
9	September	1.7462	1.5655	2,129,356	\$ 3,848,250	\$ -	\$ 3,848,250
10	October <sup>(1)</sup>	2.3928	1.5337	1,481,929	\$ 11,889,253	\$ -	\$ 11,889,253
11	November	3.5580	1.5337	1,359,179	\$ 27,513,197	\$ -	\$ 27,513,197
12	December	2.2952	1.5337	1,975,540	\$ 15,044,028	\$ -	\$ 15,044,028
13	<b>Total Test Period</b>			<b>22,424,524</b>	<b>\$ 87,468,172</b>	<b>\$ (396,210)</b>	<b>\$ 87,071,961</b>
14	Test Period Wtd Avg. c/kWh	1.9797	1.5843				
15	Adjustment to remove (Over)/Under Recovery - January-February 2021 <sup>(2)</sup>				\$ 552,163	\$ (396,210)	\$ 155,953
16	January 2022	2.6876	1.5337		\$ 24,571,837	\$ -	\$ 24,571,837
17	<b>Total (Over)/Under Recovery - Update Period January 2022<sup>(3)</sup></b>				<b>\$ 24,571,837</b>	<b>\$ -</b>	<b>\$ 24,571,837</b>
18	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 111,487,845</b>
19	NC Retail Normalized Test Period MWh Sales				Exhibit 4		22,926,377
20	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.4863</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 18.

<sup>(3)</sup> January 2022 is included for Commission review in accordance with NC Rule R8-55(d)(3). This period will be subject to review in the next annual fuel and fuel-related costs filing.

Rounding differences may occur



Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - GS/Lighting  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 3  
Page 3 of 4

Line #	Month	Fuel Cost Incurred c/kWh (a)	Fuel Cost Billed c/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.8948	1.7583	2,224,452	\$ 3,036,294	\$ -	\$ 3,036,294
2	February	2.5796	1.7583	1,711,092	\$ 14,053,467	\$ (474,850)	\$ 13,578,617
3	March <sup>(1)</sup>	2.0380	1.7583	1,477,172	\$ 3,654,007	\$ -	\$ 3,654,007
4	April	1.6824	1.7583	1,719,557	\$ (1,305,025)	\$ -	\$ (1,305,025)
5	May <sup>(1)</sup>	1.8862	1.7583	1,656,907	\$ 2,072,505	\$ -	\$ 2,072,505
6	June	2.0391	1.7583	2,021,651	\$ 5,677,153	\$ -	\$ 5,677,153
7	July	2.3469	1.7583	2,284,951	\$ 13,448,970	\$ -	\$ 13,448,970
8	August	2.5564	1.7583	2,286,069	\$ 18,244,441	\$ -	\$ 18,244,441
9	September	1.9616	1.7212	2,297,610	\$ 5,524,126	\$ -	\$ 5,524,126
10	October <sup>(1)</sup>	2.1455	1.6895	2,004,794	\$ 8,129,521	\$ -	\$ 8,129,521
11	November	3.3527	1.6895	1,759,969	\$ 29,272,230	\$ -	\$ 29,272,230
12	December	2.8474	1.6895	1,952,172	\$ 22,604,847	\$ -	\$ 22,604,847
13	<b>Total Test Period</b>			<b>23,396,396</b>	<b>\$ 124,412,536</b>	<b>\$ (474,850)</b>	<b>\$ 123,937,686</b>
14	Test Period Wtd Avg. c/kWh	2.2762	1.7378				
15	Adjustment to remove (Over)/Under Recovery - January-February 2021 <sup>(2)</sup>				\$ 17,089,761	\$ (474,850)	\$ 16,614,911
16	January 2022	3.6545	1.6895		\$ 37,762,562	\$ -	\$ 37,762,562
17	<b>Total (Over)/Under Recovery - Update Period January 2022<sup>(3)</sup></b>				<b>\$ 37,762,562</b>	<b>\$ -</b>	<b>\$ 37,762,562</b>
18	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 145,085,337</b>
19	NC Retail Normalized Test Period MWh Sales				Exhibit 4		23,198,571
20	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.6254</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 18.

<sup>(3)</sup> January 2022 is included for Commission review in accordance with NC Rule R8-55(d)(3). This period will be subject to review in the next annual fuel and fuel-related costs filing.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Calculation of Experience Modification Factor - Industrial  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 3  
Page 4 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)	Correction JDA Purchased Power (e)	Revised (Over)/Under Recovery (f)
1	January 2021	1.8306	1.6652	1,133,633	\$ 1,875,356	\$ -	\$ 1,875,356
2	February	2.2950	1.6652	947,056	\$ 5,964,724	\$ (234,113)	\$ 5,730,612
3	March <sup>(1)</sup>	1.9967	1.6652	742,085	\$ 2,224,644	\$ -	\$ 2,224,644
4	April	1.5366	1.6652	927,089	\$ (1,191,979)	\$ -	\$ (1,191,979)
5	May <sup>(1)</sup>	1.8321	1.6652	839,755	\$ 1,389,961	\$ -	\$ 1,389,961
6	June	1.9946	1.6652	1,016,768	\$ 3,349,552	\$ -	\$ 3,349,552
7	July	2.3762	1.6652	1,109,043	\$ 7,884,922	\$ -	\$ 7,884,922
8	August	2.0615	1.6652	1,391,565	\$ 5,514,222	\$ -	\$ 5,514,222
9	September	2.1003	1.6971	1,090,684	\$ 4,397,125	\$ -	\$ 4,397,125
10	October <sup>(1)</sup>	2.6966	1.7243	810,897	\$ 7,383,110	\$ -	\$ 7,383,110
11	November	2.3522	1.7243	1,277,476	\$ 8,021,220	\$ -	\$ 8,021,220
12	December	2.9496	1.7243	960,991	\$ 11,775,057	\$ -	\$ 11,775,057
13	<b>Total Test Period</b>			<b>12,247,042</b>	<b>\$ 58,587,915</b>	<b>\$ (234,113)</b>	<b>\$ 58,353,802</b>
14	Test Period Wtd Avg. ¢/kWh	2.1672	1.6828				
15	Adjustment to remove (Over)/Under Recovery - January-February 2021 <sup>(2)</sup>				\$ 7,840,080	\$ (234,113)	\$ 7,605,968
16	January 2022	3.8201	1.7243		\$ 19,653,201	\$ -	\$ 19,653,201
17	<b>Total (Over)/Under Recovery - Update Period January 2022<sup>(3)</sup></b>				<b>\$ 19,653,201</b>	<b>\$ -</b>	<b>\$ 19,653,201</b>
18	<b>Adjusted (Over)/Under Recovery</b>						<b>\$ 70,401,036</b>
19	NC Retail Normalized Test Period MWh Sales				Exhibit 4		12,293,985
20	<b>Experience Modification Increment (Decrement) cents/kWh</b>						<b>0.5726</b>

**Notes:**

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

<sup>(2)</sup> January and February 2021 filed in Docket E-7, Sub 1250 to update the EMF and included in the current EMF rate. Included for Commission review in accordance with NC Rule R8-55(d)(3) but deducted from total (Over)/Under on Line 18.

<sup>(3)</sup> January 2022 is included for Commission review in accordance with NC Rule R8-55(d)(3). This period will be subject to review in the next annual fuel and fuel-related costs filing.

Rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Sales, Fuel Revenue, Fuel Expense and System Peak  
Test Period Ended December 31, 2021  
Billing Period September 2022 - August 2023  
Docket E-7, Sub 1263

Sykes Revised Exhibit 4

Line #	Description	Reference	Total Company	North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial	
1	Test Period MWh Sales (excluding inter system sales)	Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC Retail)	86,551,610	58,067,962	22,424,524	23,396,396	12,247,042	
2	Customer Growth MWh Adjustment	Workpaper 13 Pg 1	99,601	(62,454)	162,754	(243,071)	17,862	
3	Weather MWh Adjustment	Workpaper 12 Pg 1	587,721	413,425	339,099	45,245	29,081	
4	Total Normalized MWh Sales	Sum	87,238,932	58,418,933	22,926,377	23,198,571	12,293,985	
5	Test Period Fuel and Fuel Related Revenue *		\$ 1,449,831,492	\$ 967,961,388				
6	Test Period Fuel and Fuel Related Expense *		\$ 1,845,020,858	\$ 1,238,430,010				
7	Test Period Unadjusted (Over)/Under Recovery		\$ 395,189,366	\$ 270,468,622				
			<b>2021 Summer Coincidental Peak (CP) kW</b>					
8	Total System Peak		17,241,828					
9	NC Retail Peak		11,480,608					
10	NC Residential Peak		5,400,475					
11	NC General Service/Lighting Peak		4,263,819					
12	NC Industrial Peak		1,816,314					

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

Rounding differences may occur

**Duke Energy Carolinas, LLC**  
**North Carolina Annual Fuel and Fuel Related Expense**  
**Nuclear Capacity Ratings**  
**Test Period Ended December 31, 2021**  
**Billing Period September 2022 - August 2023**  
**Docket E-7, Sub 1263**

Unit	Rate Case		Proposed Capacity Rating MW
	Docket E-7, Sub 1214	Fuel Docket E-7, Sub 1250	
Oconee Unit 1	847.0	847.0	847.0
Oconee Unit 2	848.0	848.0	848.0
Oconee Unit 3	859.0	859.0	859.0
McGuire Unit 1	1,158.0	1,158.0	1,158.0
McGuire Unit 2	1,157.6	1,157.6	1,157.6
Catawba Unit 1	1,160.1	1,160.1	1,160.0
Catawba Unit 2	1,150.1	1,150.1	1,150.1
Total Company	7,179.8	7,179.8	7,179.7

I/A

Sykes Exhibit 6

**DECEMBER 2021 MONTHLY FUEL FILING**

May 09 2022

OFFICIAL JUDGMENT 2022

**Sykes Exhibit 6**  
**Schedule 1**

DUKE ENERGY CAROLINAS  
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1248

Line No.	December 2021	12 Months Ended December 2021
1 Fuel and fuel-related costs	\$ 189,923,750	\$ 1,841,186,117
MWH sales:		
2 Total system sales	7,230,301	87,792,832
3 Less intersystem sales	48,877	1,241,222
4 Total sales less intersystem sales	<u>7,181,424</u>	<u>86,551,610</u>
5 Total fuel and fuel-related costs (¢/KWH) (line 1/line 4)	<u>2.6447</u>	<u>2.1273</u>
6 Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 7a Total)	<u>1.6334</u>	
Generation Mix (MWH):		
Fossil (by primary fuel type):		
7 Coal	285,789	13,569,695
8 Fuel Oil	2,720	53,988
9 Natural Gas - Combined Cycle	1,298,695	14,542,974
10 Natural Gas - Combined Heat and Power	9,589	15,739
11 Natural Gas - Combustion Turbine	61,155	1,131,529
12 Natural Gas - Steam	973,777	7,231,653
13 Biogas	1,215	21,502
14 Total fossil	<u>2,632,940</u>	<u>36,567,080</u>
15 Nuclear 100%	5,245,391	60,454,296
16 Hydro - Conventional	65,561	1,950,233
17 Hydro - Pumped storage	(77,236)	(610,077)
18 Total hydro	<u>(11,675)</u>	<u>1,340,156</u>
19 Solar Distributed Generation	15,972	293,289
20 Total MWH generation	7,882,628	98,654,821
21 Less joint owners' portion - Nuclear	1,413,367	15,008,712
22 Less joint owners' portion - Combined Cycle	70,455	744,961
23 Adjusted total MWH generation	<u>6,398,806</u>	<u>82,901,148</u>

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

**Sykes Exhibit 6  
Schedule 2**

**DUKE ENERGY CAROLINAS  
DETAILS OF FUEL AND FUEL-RELATED COSTS**

Docket No. E-7, Sub 1248

	<u>December 2021</u>	<u>12 Months Ended December 2021</u>
Fuel and fuel-related costs:		
0501110 coal consumed - steam	\$ 9,829,322	\$ 428,535,150
0501310 fuel oil consumed - steam	86,054	1,264,107
0501330 fuel oil light-off - steam	10,457	1,119,252
Total Steam Generation - Account 501	<u>9,925,833</u>	<u>430,918,509</u>
 Nuclear Generation - Account 518		
0518100 burnup of owned fuel	21,591,353	259,578,561
 Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	4,412,048	49,551,008
0547100 - Combustion Turbine - credit for inefficient fuel cost	(126,494)	(1,524,868)
0547100 natural gas consumed - Steam	61,810,549	331,328,622
0547101 natural gas consumed - Combined Cycle	54,245,577	392,828,920
0547101 natural gas consumed - Combined Heat and Power	817,949	1,710,128
0547106 biogas consumed - Combined Cycle	65,711	1,161,456
0547200 fuel oil consumed - Combustion Turbine	225,631	6,445,339
Total Other Generation - Account 547	<u>121,450,971</u>	<u>781,500,605</u>
 Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	851,596	18,393,982
Total Reagents	<u>851,596</u>	<u>18,393,982</u>
 By-products		
Net proceeds from sale of by-products	905,813	6,884,190
Total By-products	<u>905,813</u>	<u>6,884,190</u>
 Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	154,725,566	1,497,275,847
 Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	215,310	10,765,481
Capacity component of purchased power (renewables)	662,095	16,335,530
Capacity component of purchased power (PURPA)	281,956	8,934,137
Fuel and fuel-related component of purchased power	36,195,486	353,899,479
Total Purchased Power and Net Interchange - Account 555	<u>37,354,847</u>	<u>389,934,627</u>
 Less:		
Fuel and fuel-related costs recovered through intersystem sales	2,010,944	44,191,701
Fuel in loss compensation	138,819	1,368,818
Solar Integration Charge	(2,826)	(2,826)
Lincoln CT marginal fuel revenue	39,124	246,896
Miscellaneous Fees Collected	(29,400)	219,768
Total Fuel Credits - Accounts 447 /456	<u>2,156,661</u>	<u>46,024,357</u>
 Total Fuel and Fuel-related Costs	<u>\$ 189,923,750</u>	<u>\$ 1,841,186,117</u>

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

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

DEC 2021

Purchased Power	Total	Capacity	Non-capacity			
			mWh	Fuel \$	Fuel-related \$	Not Fuel \$ Not Fuel-related \$
Economic	\$	\$				
Carolina Power Partners, LLC	\$ 573,300	-	11,400	\$ 349,713	\$ 223,587	
Cherokee County Cogeneration Partners	1,980,350	\$ 215,310	32,635	1,605,083	159,957	
DE Progress - Native Load Transfer	20,239,048	-	573,789	19,367,526	861,570	\$ 9,952
DE Progress - Native Load Transfer Benefit	3,261,712	-	-	3,261,712	-	
Haywood Electric - Economic	38,342	19,790	332	11,317	7,235	
Macquarie Energy, LLC	357,584	-	7,413	218,126	139,458	
NCMPA - Economic	335,160	-	9,120	204,448	130,712	
Piedmont Municipal Power Agency	710,145	-	21,612	417,565	292,580	
PJM Interconnection, LLC.	12,874	-	300	7,853	5,021	
Town of Dallas	584	584	-	-	-	
Town of Forest City	19,856	19,856	-	-	-	
	<b>\$ 28,978,259</b>	<b>\$ 255,540</b>	<b>698,740</b>	<b>\$ 26,295,173</b>	<b>\$ 2,417,594</b>	<b>\$ 9,952</b>
<b>Renewable Energy</b>						
REPS	\$ 5,049,069	\$ 642,188	91,397	\$ -	\$ 4,406,882	
DERP - Purchased Power	304,103	19,907	5,264	-	205,494	78,703
DERP - Net Metered Generation	553	-	20	-	-	553
	<b>\$ 5,353,725</b>	<b>\$ 662,095</b>	<b>96,682</b>	<b>\$ -</b>	<b>\$ 4,612,376</b>	<b>\$ 79,256</b>
<b>HB589 PURPA Purchases</b>						
CPRE - Purchased Power	(20,000)	-	-	-	-	(20,000)
Qualifying Facilities	2,710,938	281,956	49,804	-	2,343,504	85,478
	<b>\$ 2,690,938</b>	<b>\$ 281,956</b>	<b>49,804</b>	<b>\$ -</b>	<b>\$ 2,343,504</b>	<b>\$ 65,478</b>
<b>Non-dispatchable / Other</b>						
Blue Ridge Electric Membership Corp.	1,100,555	\$ 617,591	25,631	294,608	-	188,356
Haywood Electric	202,825	104,398	4,343	60,040	-	38,386
Macquarie Energy, LLC	60,500	-	1,100	36,905	-	23,595
NCEMC - Other	3,133	3,133	-	-	-	-
Piedmont Electric Membership Corp.	523,997	293,984	11,904	140,308	-	89,705
Generation Imbalance	683,926	-	20,622	412,075	-	271,851
Energy Imbalance - Purchases	63,494	-	6,933	32,476	-	31,018
Energy Imbalance - Sales	306,460	-	-	(49,070)	-	355,530
Other Purchases	717	-	28	-	-	717
	<b>\$ 2,945,607</b>	<b>\$ 1,019,107</b>	<b>70,561</b>	<b>\$ 927,342</b>	<b>\$ -</b>	<b>\$ 999,158</b>
	-	-	-	-	-	-
<b>Total Purchased Power</b>	<b>\$ 39,968,528</b>	<b>\$ 2,218,697</b>	<b>915,787</b>	<b>\$ 27,222,515</b>	<b>\$ 9,373,473</b>	<b>\$ 1,153,843</b>
<b>Interchanges In</b>						
Other Catawba Joint Owners	7,311,950	-	710,249	4,176,265	-	3,135,685
WS Lee Joint Owner	1,557,572	-	29,613	1,437,844	-	119,728
Total Interchanges In	8,869,522	-	739,862	5,614,110	-	3,255,412
<b>Interchanges Out</b>						
Other Catawba Joint Owners	(7,168,642)	(134,209)	(693,456)	(4,077,519)	-	(2,956,913)
Catawba- Net Negative Generation	-	-	-	-	-	-
WS Lee Joint Owner	(2,094,784)	-	(40,405)	(1,937,093)	-	(157,691)
Total Interchanges Out	(9,263,426)	(134,209)	(733,861)	(6,014,612)	-	(3,114,604)
<b>Net Purchases and Interchange Power</b>	<b>\$ 39,574,624</b>	<b>\$ 2,084,488</b>	<b>921,788</b>	<b>\$ 26,822,013</b>	<b>\$ 9,373,473</b>	<b>\$ 1,294,651</b>

NOTE: Detail amounts may not add to totals shown due to rounding.  
CPRE purchased power amounts are recovered through the CPRE Rider.



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

<b>DEC 2021</b>
-----------------

Sykes Exhibit 6  
Schedule 3 - Sales  
Page 2 of 5

Sales	Total \$	Capacity \$	Non-capacity		
			mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	-	-	-	-	-
<b>Market Based:</b>					
Central Electric Power Cooperative, Inc.	-	\$ -	-	-	-
Macquarie Energy, LLC	46,500	-	1,400	36,695	9,805
NCMPA	91,919	87,500	81	5,027	(608)
PJM Interconnection, LLC.	-	-	-	-	-
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	274,561	-	-	274,561	-
DE Progress - Native Load Transfer	1,685,438	-	45,652	1,658,000	27,439
Generation Imbalance	42,056	-	1,744	36,660	5,396
<b>Total Intersystem Sales</b>	<b>\$ 2,139,006</b>	<b>\$ 87,500</b>	<b>48,877</b>	<b>\$ 2,010,944</b>	<b>\$ 40,562</b>

\* Sales for resale other than native load priority.

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

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

**Twelve Months Ended  
DEC 2021**

Sykes Exhibit 6  
Schedule 3 - Purchases  
Page 3 of 5

Purchased Power	Total	Capacity	Non-capacity				
			Economic	\$	mWh	Fuel \$	Fuel-related \$
Carolina Power Partners, LLC	\$ 1,787,160	-		42,160	\$ 1,090,168	\$ 696,992	
Cherokee County Cogeneration Partners	25,303,689	\$ 10,765,481		370,824	12,687,649	1,850,559	
Cube Yadkin Generation LLC	606,505	-		37,958	369,968	236,537	
DE Progress - Native Load Transfer	185,028,516	-		5,779,506	174,196,837	10,756,889	\$ 74,790
DE Progress - Native Load Transfer (Prior Period Adjust)	-	-		-	-	-	
DE Progress - Native Load Transfer Benefit	21,186,870	-		-	21,186,870	-	
DE Progress - Fees	3,126	-		-	-	3,126	
EDF Trading North America, LLC.	-	-		-	-	-	
Exelon Generation Company, LLC.	311,275	-		4,945	189,878	121,397	
Florida Power & Light Company	-	-		-	-	-	
Haywood Electric - Economic	337,984	235,484		1,819	62,525	39,975	
Macquarie Energy, LLC	4,176,326	-		90,110	2,547,559	1,628,767	
NCEMC	-	-		-	-	-	
NCMPA	1,794,926	-		48,595	1,050,744	744,183	
NCMPA Load Following Economic	12,832,732	-		405,883	7,389,860	5,442,872	
Piedmont Municipal Power Agency	3,474,337	-		120,036	2,007,947	1,466,390	
PJM Interconnection, LLC.	189,850	-		5,700	115,809	74,042	
South Carolina Electric & Gas Company / Dominion Energy	152,750	-		3,550	92,690	60,061	
Southern Company Services, Inc.	706,464	-		20,793	430,943	275,521	
Tennessee Valley Authority	280,504	-		7,231	171,107	109,397	
The Energy Authority	69,600	-		2,400	42,456	27,144	
Town of Dallas	7,008	7,008		-	-	-	
Town of Forest City	238,272	238,272		-	-	-	
	<b>\$ 258,487,895</b>	<b>\$ 11,246,246</b>		<b>6,941,510</b>	<b>\$ 223,633,007</b>	<b>\$ 23,533,853</b>	<b>\$ 74,790</b>
<b>Renewable Energy</b>							
REPS	\$ 73,398,098	\$ 16,092,597		1,192,575	\$ -	\$ 57,305,502	\$ -
DERP - Purchased Power	3,789,475	242,933		65,917	-	2,583,689	962,853
DERP - Net Metered Generation	52,349	(56)		1,943	-	-	52,406
	<b>\$ 77,239,922</b>	<b>\$ 16,335,474</b>		<b>1,260,435</b>	<b>\$ -</b>	<b>\$ 59,889,191</b>	<b>\$ 1,015,259</b>
<b>HB589 PURPA Purchases</b>							
CPRE - Purchased Power	\$ (70,000)	\$ -		-	-	-	\$ (70,000)
Qualifying Facilities	43,116,103	8,934,138		714,046	\$ -	33,167,413	1,014,555
	<b>\$ 43,046,103</b>	<b>\$ 8,934,138</b>		<b>714,046</b>	<b>\$ -</b>	<b>\$ 33,167,413</b>	<b>\$ 944,555</b>

<b>Non-dispatchable / Other</b>							
Blue Ridge Electric Membership Corp.	13,391,449	7,266,227	299,086	3,736,386		2,388,837	
Carolina Power Partners, LLC	1,101,300	-	26,310	671,793		429,507	
DE Progress - As Available Capacity	302,530	302,530	-	-		-	
Exelon Generation Company, LLC.	131,200	-	1,600	80,032		51,168	
Haywood Electric	2,619,594	1,317,250	55,640	794,430		507,914	
Macquarie Energy, LLC	10,866,055	-	182,317	6,628,294		4,237,761	
NCEMC - Other	724,944	30,315	8,941	423,724		270,905	
NCMPA - Reliability	316,144	-	3,496	192,848		123,296	
Piedmont Electric Membership Corp.	6,410,149	3,460,962	140,160	1,799,004		1,150,182	
Southern Company Services, Inc.	541,806	-	6,886	330,502		211,304	
Generation Imbalance	2,987,298		75,257	1,636,681		1,350,617	
Energy Imbalance - Purchases	1,644,938		(77,146)	1,358,681		286,257	
Energy Imbalance - Sales	(4,528,599)		-	(4,307,002)		(221,597)	
Other Purchases	6,183	-	228	-		6,183	
	<b>\$ 36,514,991</b>	<b>\$ 12,377,283</b>	<b>722,775</b>	<b>\$ 13,345,372</b>	<b>\$ -</b>	<b>\$ 10,792,336</b>	
<b>Total Purchased Power</b>	<b>\$ 415,288,911</b>	<b>\$ 48,893,141</b>	<b>9,638,766</b>	<b>\$ 236,978,379</b>	<b>\$ 116,590,457</b>	<b>\$ 12,826,940</b>	(6)
<u>Interchanges In</u>							
Other Catawba Joint Owners	71,832,695	-	7,544,326	42,400,464		29,432,231	
WS Lee Joint Owner	15,839,014	-	462,339	13,941,298		1,897,716	
Total Interchanges In	87,671,709	-	8,006,664	56,341,761		31,329,947	
<u>Interchanges Out</u>							
Other Catawba Joint Owners	(74,348,518)	(1,580,207)	(7,701,093)	(43,504,130)		(29,264,180)	
Catawba- Net Negative Generation	(258,387)	-	(13,290)	(214,466)		(43,921)	
WS Lee Joint Owner	(14,126,778)	-	(402,026)	(12,292,521)		(1,834,257)	
Total Interchanges Out	(88,733,683)	(1,580,207)	(8,116,409)	(56,011,117)		(31,142,358)	
<b>Net Purchases and Interchange Power</b>	<b>\$ 414,226,937</b>	<b>\$ 47,312,934</b>	<b>9,529,021</b>	<b>\$ 237,309,023</b>	<b>\$ 116,590,457</b>	<b>\$ 13,014,529</b>	

NOTES: Detail amounts may not add to totals shown due to rounding.  
CPRE purchased power amounts are recovered through the CPRE Rider.

DUKE ENERGY CAROLINAS  
INTERSYSTEM SALES\*  
SYSTEM REPORT - NORTH CAROLINA VIEWTwelve Months Ended  
DEC 2021

Sales	Total	Capacity	Non-capacity		
	\$	\$	mWh	Fuel \$	Non-fuel \$
<b>Utilities:</b>					
SC Public Service Authority - Emergency	506,304	-	5,909	429,565	76,740
SC Electric & Gas / Dominion Energy - Emergency	49,990	-	1,091	52,118	(2,128)
<b>Market Based:</b>					
Carolina Power Partners, LLC	134,880	-	2,780	109,765	25,115
Central Electric Power Cooperative, Inc.	4,590,375	\$ 4,809,001	(5,516)	(209,410)	(9,216)
Macquarie Energy, LLC	3,477,999	-	97,200	3,350,868	127,130
NCMPA	1,376,522	1,050,000	6,271	337,204	(10,682)
PJM Interconnection, LLC.	219,886	-	8,198	207,112	12,773
SC Electric & Gas / Dominion Energy	191,976	-	3,925	151,852	40,123
Southern Company	18,750	-	1,250	22,085	(3,335)
Tennessee Valley Authority	1,800	-	50	1,674	126
The Energy Authority	246,025	-	3,875	211,674	34,351
<b>Other:</b>					
DE Progress - Native Load Transfer Benefit	5,711,116	-	-	5,711,116	-
DE Progress - Native Load Transfer	35,200,938	-	1,094,952	33,084,586	2,116,352
Generation Imbalance	740,062	-	21,237	731,493	8,569
BPM Transmission	(635,177)	-	-	-	(635,177)
<b>Total Intersystem Sales</b>	<b>\$ 51,831,446</b>	<b>\$ 5,859,001</b>	<b>1,241,222</b>	<b>\$ 44,191,701</b>	<b>\$ 1,780,742</b>

\* Sales for resale other than native load priority.

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

**Duke Energy Carolinas**  
**(Over) / Under Recovery of Fuel Costs**  
**Dec 2021**

Line No.		Residential	Commercial	Industrial	Total
1	Actual System kWh sales				7,181,424,304
2	DERP Net Metered kWh generation				10,166,360
3	Adjusted System kWh sales				<u>7,191,590,664</u>
4	N.C. Retail kWh sales	1,975,539,867	1,952,172,317	960,990,889	4,888,703,073
5	NC kWh sales % of actual system kWh sales				68.07%
6	NC kWh sales % of adjusted system kWh sales				67.98%
7	Approved fuel and fuel-related rates (¢/kWh)				
7a	Billed rates by class (¢/kWh)	Input Annually	1.5337	1.6895	1.7243
7b	Billed fuel expense	L7b * L4 / 100	<u>\$30,298,855</u>	<u>\$32,981,951</u>	<u>\$16,570,366</u>
8	Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (¢/kWh)				
8a	Docket E-7, Sub 1228 allocation factor	Input	35.00%	43.03%	21.96%
8b	System incurred expense	Input			\$189,029,546
8c	Incurred base fuel and fuel-related expense	L8b * L6 * 8a	\$44,977,890	\$55,298,766	\$28,221,943
8d	Incurred base fuel rates by class (¢/kWh)	L8c / L4 * 100	2.2767	2.8327	2.9368
9	Incurred renewable purchased power capacity rates by class (¢/kWh)				
9a	NC retail production plant %	Input			66.98%
9b	Production plant allocation factors	Input	47.00%	37.09%	15.90%
9c	System incurred expense	Input			\$1,159,361
9d	Incurred renewable capacity expense	L9a * L9b * 9c	\$364,993	\$288,032	\$123,480
9e	Incurred renewable capacity rates by class (¢/kWh)	(L9a * L9c) * L9b / L4 * 100	0.0185	0.0148	0.0128
10	Total incurred rates by class (¢/kWh)	L8d + L9e	2.2952	2.8474	2.9496
11	Difference in ¢/kWh (incurred - billed)	L7a - L10	0.7615	1.1579	1.2253
12	(Over) / under recovery [See footnote]	(L4 * L11) / 100	<u>\$15,044,028</u>	<u>\$22,604,847</u>	<u>\$11,775,057</u>
13	Adjustments	Input			
14	Total (over) / under recovery [See footnote]	L12+ L13	<u>\$15,044,028</u>	<u>\$22,604,847</u>	<u>\$11,775,057</u>
15	Total system incurred expense	L8b + L9c			\$190,188,907
16	Less: Jurisdictional allocation adjustment(s)	Input			265,155
17	Total Fuel and Fuel-related Costs per Schedule 2	L15 + L16 + L17			<u>\$189,923,752</u>
18	(Over) / under recovery for each month of the current calendar year [See footnote]				

	(Over) / Under Recovery				
	Total To Date	Residential	Commercial	Industrial	Total Company
Year 2021					
January	\$1,309,433	(\$3,602,217)	\$3,036,294	\$1,875,356	\$1,309,433
February	25,482,004	\$4,154,380	\$14,053,467	\$5,964,724	\$24,172,571
_/1 March	24,201,918	(\$7,158,737)	\$3,654,007	\$2,224,644	(\$1,280,086)
April	20,526,255	(\$1,178,659)	(\$1,305,025)	(\$1,191,979)	(\$3,675,663)
_/1 May	29,632,653	\$5,643,932	\$2,072,505	\$1,389,961	\$9,106,398
June	44,906,231	\$6,246,872	\$5,677,153	\$3,349,552	\$15,273,578
July	77,158,822	\$10,918,699	\$13,448,970	\$7,884,922	\$32,252,591
August	115,066,658	\$14,149,173	\$18,244,441	\$5,514,222	\$37,907,836
September	128,836,159	\$3,848,250	\$5,524,126	\$4,397,125	\$13,769,501
October	156,238,043	\$11,889,253	\$8,129,521	\$7,383,110	\$27,401,884
November	\$221,044,690	\$27,513,197	\$29,272,230	\$8,021,220	\$64,806,647
December	\$270,468,622	\$15,044,028	\$22,604,847	\$11,775,057	\$49,423,932
		\$87,468,172	\$124,412,536	\$58,587,915	\$270,468,622

## Notes:

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

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

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

\_/1 Includes 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 2021**

**Sykes Exhibit 6**  
**Schedule 5**  
**Page 1 of 2**

Description	Buck CC	Dan River CC	Lee CC	Clemson CHP	Lee Steam/CT	Lincoln CT	(A) Lincoln (Unit 17) CT	Mill Creek CT	Rockingham CT
<b>Cost of Fuel Purchased (\$)</b>									
Coal	-	-	-	-	-	-	-	682,026	342,571
Oil	-	-	-	-	-	-	-	-	-
Gas - CC	\$18,337,524	\$14,701,746	\$24,724,237	-	-	-	-	-	-
Gas - CHP	-	-	-	\$817,949	-	-	-	-	-
Gas - CT	-	-	-	-	\$14,021	\$6,134	(\$127,461)	\$293,036	\$4,099,824
Gas - Steam	-	-	-	-	3	-	-	-	-
Biogas	-	221,776	-	-	-	-	-	-	-
Total	\$18,337,524	\$14,923,522	\$24,724,237	\$817,949	\$14,024	\$6,134	(\$127,461)	\$975,062	\$4,442,395
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>									
Coal	-	-	-	-	-	-	-	1,672.86	1,655.96
Oil	-	-	-	-	-	-	-	-	-
Gas - CC	632.40	632.14	634.66	-	-	-	-	-	-
Gas - CHP	-	-	-	715.93	-	-	-	-	-
Gas - CT	-	-	-	-	-	1,792.50	(1,005.99)	653.43	636.17
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	2,601.47	-	-	-	-	-	-	-
Weighted Average	632.40	639.34	634.66	715.93	-	1,792.50	(1,005.99)	1,138.88	667.89
<b>Cost of Fuel Burned (\$)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	\$49,924	-	154,413	21,294	-
Gas - CC	\$18,337,524	\$14,701,746	\$24,724,237	-	-	-	-	-	-
Gas - CHP	-	-	-	\$817,949	-	-	-	-	-
Gas - CT	-	-	-	-	14,021	\$6,134	(\$127,461)	\$293,036	\$4,099,824
Gas - Steam	-	-	-	-	3	-	-	-	-
Biogas	-	221,776	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Total	\$18,337,524	\$14,923,522	\$24,724,237	\$817,949	\$63,949	\$6,134	\$26,952	\$314,330	\$4,099,824
<b>Average Cost of Fuel Burned (¢/MBTU)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	1,400.40	-	1,105.56	1,784.91	-
Gas - CC	632.40	632.14	634.66	-	-	-	-	-	-
Gas - CHP	-	-	-	715.93	-	-	-	-	-
Gas - CT	-	-	-	-	-	1,792.50	(1,005.99)	653.43	636.17
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	2,601.47	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Weighted Average	632.40	639.34	634.66	715.93	1,793.79	1,792.50	101.18	682.75	636.17
<b>Average Cost of Generation (¢/kWh)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	-	-	15.06	1.68	-
Gas - CC	4.44	4.43	4.47	-	-	-	-	-	-
Gas - CHP	-	-	-	8.53	-	-	-	-	-
Gas - CT	-	-	-	-	-	-	-	15.22	6.76
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	18.25	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Weighted Average	4.44	4.48	4.47	8.53	-	-	5.90	9.84	6.76
<b>Burned MBTU's</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	3,565	-	13,967	1,193	-
Gas - CC	2,899,674	2,325,698	3,895,675	-	-	-	-	-	-
Gas - CHP	-	-	-	114,250	-	-	-	-	-
Gas - CT	-	-	-	-	-	342	12,670	44,846	644,452
Gas - Steam	-	-	-	-	-	-	-	-	-
Biogas	-	8,525	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-	-	-
Total	2,899,674	2,334,223	3,895,675	114,250	3,565	342	26,637	46,039	644,452
<b>Net Generation (mWh)</b>									
Coal	-	-	-	-	-	-	-	-	-
Oil - CC	-	-	-	-	-	-	-	-	-
Oil - Steam/CT	-	-	-	-	(34)	-	1,025	1,269	-
Gas - CC	413,337	332,121	553,237	-	-	-	-	-	-
Gas - CHP	-	-	-	9,589	-	-	-	-	-
Gas - CT	-	-	-	-	(0)	(855)	(568)	1,925	60,653
Gas - Steam	-	-	-	-	(388)	-	-	-	-
Biogas	-	1,215	-	-	-	-	-	-	-
Nuclear 100%	-	-	-	-	-	-	-	-	-
Hydro (Total System)	-	-	-	-	-	-	-	-	-
Solar (Total System)	-	-	-	-	-	-	-	-	-
Total	413,337	333,336	553,237	9,589	(422)	(855)	457	3,194	60,653
<b>Cost of Reagents Consumed (\$)</b>									
Ammonia	\$45,251	\$0	\$27,467	-	-	-	-	-	-
Limestone	-	-	-	-	-	-	-	-	-
Sorbents	-	-	-	-	-	-	-	-	-
Urea	-	-	-	-	-	-	-	-	-
Re-emission Chemical	-	-	-	-	-	-	-	-	-
Dibasic Acid	-	-	-	-	-	-	-	-	-
Activated Carbon	-	-	-	-	-	-	-	-	-
Lime (water emissions)	-	-	-	-	-	-	-	-	-
Total	\$45,251	\$0	\$27,467	-	-	-	-	-	-

**Notes:**

(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.

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.

Lime (water emissions) expense is not recoverable in SC fuel clause.

**DUKE ENERGY CAROLINAS**  
**FUEL AND FUEL RELATED COST REPORT**  
**DECEMBER 2021**

**Sykes Exhibit 6**  
**Schedule 5**  
**Page 2 of 2**

Description	Allen	Marshall	Belews Creek	Cliffside	Catawba	McGuire	Oconee	Current Month	Total 12 ME December 2021
	Steam	Steam - Dual Fuel	Steam - Dual Fuel	Steam - Dual Fuel	Nuclear	Nuclear	Nuclear		
<b>Cost of Fuel Purchased (\$)</b>									
Coal	\$9,147	\$13,307,577	\$3,448,822	\$4,617,247				21,382,792	\$427,384,699
Oil	17,051	-	-	104,088				1,145,737	8,620,241
Gas - CC								57,763,507	416,957,828
Gas - CHP								817,949	1,710,128
Gas - CT								4,285,554	48,026,140
Gas - Steam		19,910,055	20,938,211	20,962,280				61,810,549	331,328,622
Biogas								221,776	3,513,761
Total	\$26,198	\$33,217,632	\$24,387,033	\$25,683,615				\$147,427,864	\$1,237,541,419
<b>Average Cost of Fuel Purchased (¢/MBTU)</b>									
Coal	-	341.95	388.15	353.46				351.32	311.27
Oil	1,657.42	-	-	1,659.76				1,666.35	1,557.24
Gas - CC								633.30	406.84
Gas - CHP								715.93	718.56
Gas - CT								639.90	378.17
Gas - Steam		632.16	632.96	644.19				636.47	447.74
Biogas								2,601.47	2,304.35
Weighted Average	2,546.48	471.76	581.13	562.42				571.14	377.95
<b>Cost of Fuel Burned (\$)</b>									
Coal	\$65,756	\$5,862,319	\$2,100,615	\$1,800,631				\$9,829,322	\$428,535,150
Oil - CC								-	-
Oil - Steam/CT	29,766	10,457	-	56,288				322,142	8,828,699
Gas - CC								57,763,507	416,957,828
Gas - CHP								817,949	1,710,128
Gas - CT								4,285,554	48,026,140
Gas - Steam		19,910,055	20,938,211	20,962,280				61,810,549	331,328,622
Biogas								221,776	3,513,761
Nuclear					\$10,271,789	\$9,549,235	\$10,065,209	29,886,234	346,155,577
Total	\$95,522	\$25,782,831	\$23,038,826	\$22,819,199	\$10,271,789	\$9,549,235	\$10,065,209	\$164,937,032	\$1,585,055,905
<b>Average Cost of Fuel Burned (¢/MBTU)</b>									
Coal	308.89	306.80	326.30	296.55				308.80	323.27
Oil - CC								-	-
Oil - Steam/CT	1,714.61	1,448.33	-	1,600.91				1,304.27	1,513.70
Gas - CC								633.30	406.84
Gas - CHP								715.93	718.56
Gas - CT								639.90	378.17
Gas - Steam		632.16	632.96	644.19				636.47	447.74
Biogas								2,601.47	2,304.35
Nuclear					58.89	54.27	58.00	57.04	56.91
Weighted Average	414.88	509.44	583.01	590.45	58.89	54.27	58.00	219.17	170.26
<b>Average Cost of Generation (¢/kWh)</b>									
Coal	-	3.39	3.67	3.13				3.44	3.16
Oil - CC								-	-
Oil - Steam/CT	47.38	22.07	-	16.10				11.84	16.35
Gas - CC								4.45	2.87
Gas - CHP								8.53	10.87
Gas - CT								7.01	4.24
Gas - Steam		5.99	6.50	6.56				6.35	4.58
Biogas								18.25	16.34
Nuclear					0.59	0.54	0.59	0.57	0.57
Weighted Average	-	5.10	6.07	6.04	0.59	0.54	0.59	2.09	1.61
<b>Burned MBTU's</b>									
Coal	21,288	1,910,774	643,767	607,196				3,183,025	132,563,622
Oil - CC								-	-
Oil - Steam/CT	1,736	722	-	3,516				24,699	583,254
Gas - CC								9,121,047	102,486,732
Gas - CHP								114,250	237,993
Gas - CT								702,310	12,699,459
Gas - Steam		3,149,517	3,307,964	3,254,033				9,711,513	74,000,255
Biogas								8,525	152,484
Nuclear					17,441,318	17,596,089	17,353,876	52,391,283	608,224,167
Total	23,024	5,061,013	3,951,731	3,864,745	17,441,318	17,596,089	17,353,876	75,256,653	930,947,966
<b>Net Generation (mWh)</b>									
Coal	(1,949)	172,888	57,288	57,562				285,789	13,569,695
Oil - CC								-	-
Oil - Steam/CT	63	47	-	350				2,720	53,988
Gas - CC								1,298,695	14,542,974
Gas - CHP								9,589	15,739
Gas - CT								61,155	1,131,529
Gas - Steam		332,208	322,315	319,641				973,777	7,231,653
Biogas								1,215	21,502
Nuclear 100%					1,750,213	1,777,245	1,717,933	5,245,391	60,454,296
Hydro (Total System)								(11,675)	1,340,157
Solar (Total System)								15,972	293,289
Total	(1,886)	505,143	379,603	377,553	1,750,213	1,777,245	1,717,933	7,882,628	98,654,822
<b>Cost of Reagents Consumed (\$)</b>									
Ammonia			\$201,650	\$36,996				\$311,364	\$3,138,382
Limestone	\$0	\$247,876	50,319	154,001				\$452,195	12,981,466
Sorbents	-	31,875	-	-				\$31,875	1,514,963
Urea	-	51,650	-	-				\$51,650	389,401
Re-emission Chemical	-	-	-	-				\$0	316,690
Dibasic Acid	-	-	-	-				\$0	-
Activated Carbon	-	-	-	-				\$0	358,930
Lime (water emissions)	-	-	8,010	-				\$8,010	39,411
Total	-	331,401	\$259,978	\$190,997				\$855,094	\$18,739,243

**Notes:**

(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.

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.

Lime (water emissions) expense is not recoverable in SC fuel clause.



**DUKE ENERGY CAROLINAS**  
**FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT**  
**DECEMBER 2021**

Description	Buck CC	Dan River CC	Lee CC	Clemson CHP	Lee Steam/CT	Lincoln CT	(A)	Mill Creek CT	Rockingham CT	Allen Steam	Marshall Steam - Dual Fuel	Belews	Cliffside Steam - Dual Fuel	Current Month	Total 12 ME December 2021
							Lincoln (Unit17) CT					Creek Steam - Dual Fuel			
<b>Coal Data:</b>															
Beginning balance					-					110,834	714,068	709,231	600,419	2,134,553	2,088,546.52
Tons received during period										-	154,113	36,234	50,335	240,682	5,535,629.00
Inventory adjustments											0	(0)	0	0	(59,105.14)
Tons burned during period										885	74,950	25,810	23,739	125,384	5,315,219.09
Ending balance										109,949	793,231	719,654	627,016	2,249,850	2,249,850.29
MBTUs per ton burned										144.00	25.49	24.94	25.58	26.23	24.94
Cost of ending inventory (\$/ton)										74.30	78.22	81.39	75.85	78.38	78.38
<b>Oil Data:</b>															
Beginning balance	-	-	-		644,737	8,458,109	1,345,366	3,435,783	2,760,864	74,474	297,507	95,645	190,014	17,302,499	18,142,757
Gallons received during period	-	-	-		-	-	-	295,436	149,907	7,455	-	-	45,444	498,242	4,011,299
Miscellaneous adjustments	-	-	-		-	-	(24,834)	-	-	-	-	(5,273)	(4,237)	(34,099)	(274,028)
Gallons burned during period	-	-	-		25,990	-	77,576	8,668	-	12,671	5,273	-	25,712	156,135	4,269,522
Ending balance	-	-	-		618,747	8,458,109	1,242,955	3,722,551	2,910,771	69,258	292,234	90,372	205,509	17,610,506	17,610,506
Cost of ending inventory (\$/gal)	-	-	-		1.92	2.10	1.99	2.46	2.12	2.35	1.98	2.25	2.19	2.16	2.16
<b>Natural Gas Data:</b>															
Beginning balance															
MCF received during period	2,807,749	2,247,267	3,791,315	111,221	-	332	(158)	43,738	622,006		3,060,068	3,194,905	3,155,140	19,033,584	183,335,760
MCF burned during period	2,807,749	2,247,267	3,791,315	111,221	-	332	(158)	43,738	622,006		3,060,068	3,194,905	3,155,140	19,033,584	183,335,760
Ending balance															
<b>Biogas Data:</b>															
Beginning balance															
MCF received during period	-	8,237	-											8,237	147,532
MCF burned during period	-	8,237	-											8,237	147,532
Ending balance															
<b>Limestone Data:</b>															
Beginning balance										24,210	45,035	45,723	29,962	144,930	154,428
Tons received during period										-	12,544	1,676	8,277	22,498	281,447
Inventory adjustments										-	-	-	-	-	(1,837)
Tons consumed during period										-	5,699	1,074	1,915	8,688	275,299
Ending balance										24,210	51,880	46,325	36,324	158,739	158,739
Cost of ending inventory (\$/ton)										49.08	43.49	46.83	42.16	45.02	45.02
<b>Ammonia Data: (B)</b>															
Beginning balance	2,650													2,650	1,822
Tons received during period	996													996	5,129
Tons consumed during period	885													885	4,190
Ending balance	2,761													2,761	2,761
Cost of ending inventory (\$/ton)	843.38													843.38	843.38

**Notes:**  
Detail amounts may not add to totals shown due to rounding.  
Schedule excludes in-transit and terminal activity.  
Gas is burned as received; therefore, inventory balances are not maintained.  
(A) Lincoln (Unit 17) fuel and fuel related costs represents pre-commercial generation during an extended testing and validation period.  
(B) Quarterly ammonia inventory amounts are revised to reflect a correction to June quantities, affecting the quarter ending September 2021 beginning balance. Revised amounts for quarter ending June 2021 are revised above.

**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL PURCHASED  
DECEMBER 2021**

<b>STATION</b>	<b>TYPE</b>	<b>QUANTITY OF TONS DELIVERED</b>	<b>DELIVERED COST</b>	<b>DELIVERED COST PER TON</b>
<b>ALLEN</b>	SPOT	-	\$ -	\$ -
	CONTRACT	-	-	-
	FIXED TRANSPORTATION / ADJUSTMENTS	-	9,147	-
	<b>TOTAL</b>	<b>-</b>	<b>9,147</b>	<b>-</b>
<b>BELEWS CREEK</b>	SPOT	-	111,089	-
	CONTRACT	36,234	2,920,743	80.61
	FIXED TRANSPORTATION / ADJUSTMENTS	-	416,990	-
	<b>TOTAL</b>	<b>36,234</b>	<b>3,448,822</b>	<b>95.18</b>
<b>CLIFFSIDE</b>	SPOT	13,034	1,151,180	88.32
	CONTRACT	37,301	3,111,563	83.42
	FIXED TRANSPORTATION / ADJUSTMENTS	-	354,504	-
	<b>TOTAL</b>	<b>50,335</b>	<b>4,617,247</b>	<b>91.73</b>
<b>MARSHALL</b>	SPOT	76,949	6,966,864	90.54
	CONTRACT	77,165	5,901,064	76.47
	FIXED TRANSPORTATION / ADJUSTMENTS	-	439,649	-
	<b>TOTAL</b>	<b>154,114</b>	<b>13,307,577</b>	<b>86.35</b>
<b>ALL PLANTS</b>	SPOT	89,983	8,229,133	91.45
	CONTRACT	150,700	11,933,370	79.19
	FIXED TRANSPORTATION / ADJUSTMENTS	-	1,220,290	-
	<b>TOTAL</b>	<b>240,683</b>	<b>21,382,793</b>	<b>\$ 88.84</b>

**DUKE ENERGY CAROLINAS  
ANALYSIS OF COAL QUALITY RECEIVED  
DECEMBER 2021**

<b>STATION</b>	<b>PERCENT MOISTURE</b>	<b>PERCENT ASH</b>	<b>HEAT VALUE</b>	<b>PERCENT SULFUR</b>
<b>ALLEN</b>	-	-	-	-
<b>BELEWS CREEK</b>	7.48	10.95	12,261	1.47
<b>CLIFFSIDE</b>	6.18	8.77	12,976	2.99
<b>LEE</b>	-	-	-	-
<b>MARSHALL</b>	6.73	9.31	12,626	1.95

**DUKE ENERGY CAROLINAS  
ANALYSIS OF OIL PURCHASED  
DECEMBER 2021**

	<u>ALLEN</u>	<u>BELEWS CREEK</u>	
<b>VENDOR</b>	HighTowers	HighTowers	
<b>SPOT/CONTRACT</b>	Contract	Contract	
<b>SULFUR CONTENT %</b>	-	-	
<b>GALLONS RECEIVED</b>	7,455	-	
<b>TOTAL DELIVERED COST</b>	\$ 17,051	\$ -	
<b>DELIVERED COST/GALLON</b>	\$ 2.29	\$ -	
<b>BTU/GALLON</b>	138,000	138,000	
	<u>CLIFFSIDE</u>	<u>MARSHALL</u>	
<b>VENDOR</b>	HighTowers	HighTowers	
<b>SPOT/CONTRACT</b>	Contract	Contract	
<b>SULFUR CONTENT %</b>	-	-	
<b>GALLONS RECEIVED</b>	45,444	-	
<b>TOTAL DELIVERED COST</b>	\$ 104,088	\$ -	
<b>DELIVERED COST/GALLON</b>	\$ 2.29	\$ -	
<b>BTU/GALLON</b>	138,000	138,000	
	<u>LEE</u>	<u>MILL CREEK</u>	<u>ROCKINGHAM</u>
<b>VENDOR</b>	HighTowers	HighTowers	HighTowers
<b>SPOT/CONTRACT</b>	Contract	Contract	Contract
<b>SULFUR CONTENT %</b>	-	-	-
<b>GALLONS RECEIVED</b>	-	295,436	149,907
<b>TOTAL DELIVERED COST</b>	\$ -	\$ 682,026	\$ 342,571
<b>DELIVERED COST/GALLON</b>	\$ -	\$ 2.31	\$ 2.29
<b>BTU/GALLON</b>	138,000	138,000	138,000

I/A

Duke Energy Carolinas Base Load Power Plant Performance Review Plan  
 Report Period: December 2021 - December 2021

Station	Unit	Date of Outage	Duration of Outage (Hours)	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Actions Taken
Oconee	1						
	2	11/12/2021 - 12/07/2021	160.10	Scheduled	Refueling outage O2R30	Normal refueling outage	N/A - Normal refueling outage
	2	12/10/2021 - 12/12/2021	60.35	Unscheduled	Forced outage O2F30A due to spurious reactor protection system (RPS) relay actuation	Spurious reactor protection system (RPS) relay actuation	A failure investigation was started and the 2NI-5 linear amplifier was repaired
McGuire	1						
	2						
	3						
Catawba	1						
	2						

OFFICIAL COPY  
 NOV 27 2022

**Duke Energy Carolinas  
 Baseload Steam and CHP Units  
 Performance Review Plan  
 December 2021**

OFFICIAL COPY

JULY 27, 2022

**Belews Creek Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1	12/1/2021 11:30:00 AM To 12/3/2021 5:00:00 PM	Sch	4899 Other miscellaneous generator problems	Generator PT appears to have a loose connection causing issues with closing	

**Buck Combined Cycle Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
11	12/19/2021 10:42:00 AM To 12/19/2021 10:46:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSETS TO OPPOSING UNIT.	
12	12/18/2021 2:00:00 PM To 12/18/2021 8:06:00 PM	Sch	0680 Feedwater valves (not feedwater regulating valve)	12 ECONOMIZER VENT VALVE REPLACEMENT. VALVE PACKING BLOWN OUT AND VALVE WAS STUCK AND WOULD NOT OPERATE.	
ST10	12/19/2021 9:04:00 AM To 12/19/2021 9:47:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSET TO UNIT.	
ST10	12/19/2021 10:22:00 AM To 12/19/2021 11:04:00 AM	Unsch	6171 IP Startup bypass system valves	12 HRH BYPASS STICKING. WOULD NOT OPERATE BEYOND 35%. CAUSING UPSET TO UNIT	

**Clemson CHP**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
1	11/24/2021 9:30:00 AM To 12/1/2021 9:00:00 AM	Sch	4551 Generator bearings	Planned outage to address generator bearing leaks. New seals installed.	
1	12/8/2021 10:13:00 AM To 12/8/2021 5:28:00 PM	Sch	4552 Generator lube oil system	Short outage for generator oil leakage inspection.	

**Dan River Combined Cycle Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
8	12/8/2021 9:59:00 PM To 12/12/2021 1:27:00 PM	Sch	5261 Gas turbine/compressor washing	1x1 Planned Outage for Water Wash of GT8 and minor maintenance	

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% owne

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

9	12/4/2021 12:56:00 AM To 12/8/2021 6:52:00 PM	Sch	5261	Gas turbine/compressor washing	GT9 is in Planned Outage for 1X1 outage for Water Wash and Minor Maintenance
---	--	-----	------	--------------------------------	--

**Marshall Station**

Unit	Duration of Outage	Type of Outage	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
3	12/10/2021 2:29:00 AM To 12/16/2021 2:30:00 PM	Sch	0541 Cold reheat steam piping up to boiler	Reheat Piping Leak Repairs	
3	12/19/2021 12:44:00 PM To 12/19/2021 2:51:00 PM	Unsch	0530 Other main steam system problems	Superheat steam temp issues	
3	12/19/2021 2:51:00 PM To 12/20/2021 3:00:00 PM	Unsch	4240 Bearings	Unit 3 bearing vibration on attempted start.	
3	12/20/2021 3:00:00 PM To 12/30/2021 7:00:00 PM	Unsch	4240 Bearings	Unit 3 bearing vibration on attempted start. Unit will go into outage to repair the issue.	

**WS Lee Combined Cycle**

No Outages at Baseload Units During the Month.

Notes:

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

**Duke Energy Carolinas Base Load Power Plant Performance Review Plan**  
**Report Period: December 2021 - December 2021**

	Oconee 1	Oconee 2	Oconee 3	McGuire 1	McGuire 2	Catawba 1	Catawba 2
(A) MDC (MW)	847	848	859	1158	1158	1160	1150
(B) Period Hours	744	744	744	744	744	744	744
(C1) Net Gen (MWH)	643,930	419,589	654,414	888,551	888,694	880,196	870,017
(C2) Capacity Factor (%)	102.18	66.51	102.40	103.13	103.15	101.99	101.69
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	135,765	0	0	0	0	0
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	21.52	0.00	0.00	0.00	0.00	0.00
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	0	18,509	0	0	0	0	0
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	2.93	0.00	0.00	0.00	0.00	0.00
(F1) Net MWH Not Gen Due to Full Forced Outages	0	51,177	0	0	0	0	0
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	8.11	0.00	0.00	0.00	0.00	0.00
(G1) Net MWH Not Gen due to Partial Forced Outages	-13,762	5,872	-15,318	-26,999	-27,142	-17,156	-14,417
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-2.18	0.93	-2.40	-3.13	-3.15	-1.99	-1.69
(H1) Net MWH Not Gen Due to Economic Dispatch	0	0	0	0	0	0	0
(H2) %Net MWH Not Gen Due to Economic Dispatch	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(I1) Core Conservation	0	0	0	0	0	0	0
(I2) % Core Conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(J1) Net MWH Possible in Period	630,168	630,912	639,096	861,552	861,552	863,040	855,600
(J2) % Net mwh Possible in Period	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
(K) Equivalent Availability (%)	100.00	65.78	100.00	100.00	100.00	100.00	100.00
(L) Output Factor (%)	102.18	94.51	102.40	103.13	103.15	101.99	101.69
(M) Heat Rate (BTU/Net KWH)	10,130	10,277	9,961	9,901	9,901	9,991	9,939

Notes:

- 1) Fields (E1), (E2), (G1), (G2), (H1), (H2), (I1) and (I2) are estimates
  - 2) Fields (D1), (D2), (F1) and (F2) include ramping losses
- EAF is calculated using Standard NERC calculation and excludes OMC events



I/A

**Duke Energy Carolinas  
 Baseload Steam and CHP Units  
 Performance Review Plan  
 December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	744	744
(C) Net Generation (mWh)	-1,362	380,965
(D) Capacity Factor (%)	0.00	46.13
(E) Net mWh Not Generated due to Full Scheduled Outages	59,385	0
(F) Scheduled Outages: percent of Period Hrs	7.19	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	0	33,600
(H) Scheduled Derates: percent of Period Hrs	0.00	4.07
(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	770
(L) Forced Derates: percent of Period Hrs	0.00	0.09
(M) Net mWh Not Generated due to Economic Dispatch	766,455	410,505
(N) Economic Dispatch: percent of Period Hrs	92.81	49.71
(O) Net mWh Possible in Period	825,840	825,840
(P) Equivalent Availability (%)	92.81	95.84
(Q) Output Factor (%)	0.00	46.13
(R) Heat Rate (BTU/NkWh)	0	10,986

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	306	718
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	127,292	114,031	172,014	413,337
(D) Capacity Factor (%)	83.05	74.40	75.56	77.38
(E) Net mWh Not Generated due to Full Scheduled Outages	0	1,257	0	1,257
(F) Scheduled Outages: percent of Period Hrs	0.00	0.82	0.00	0.24
(G) Net mWh Not Generated due to Partial Scheduled Outages	231	231	525	987
(H) Scheduled Derates: percent of Period Hrs	0.15	0.15	0.23	0.18
(I) Net mWh Not Generated due to Full Forced Outages	14	0	434	447
(J) Forced Outages: percent of Period Hrs	0.01	0.00	0.19	0.08
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	383	383
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.17	0.07
(M) Net mWh Not Generated due to Economic Dispatch	25,727	37,745	54,308	117,781
(N) Economic Dispatch: percent of Period Hrs	16.79	24.63	23.85	22.05
(O) Net mWh Possible in Period	153,264	153,264	227,664	534,192
(P) Equivalent Availability (%)	99.84	99.03	99.41	99.42
(Q) Output Factor (%)	83.06	83.25	75.70	79.88
(R) Heat Rate (BTU/NkWh)	10,525	10,190	2,366	7,037

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Clemson CHP**

Clemson CHP1

(A) MDC (mW)	16
(B) Period Hrs	744
(C) Net Generation (mWh)	9,589
(D) Capacity Factor (%)	83.15
(E) Net mWh Not Generated due to Full Scheduled Outages	252
(F) Scheduled Outages: percent of Period Hrs	2.18
(G) Net mWh Not Generated due to Partial Scheduled Outages	0
(H) Scheduled Derates: percent of Period Hrs	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0
(J) Forced Outages: percent of Period Hrs	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0
(L) Forced Derates: percent of Period Hrs	0.00
(M) Net mWh Not Generated due to Economic Dispatch	1,691
(N) Economic Dispatch: percent of Period Hrs	14.66
(O) Net mWh Possible in Period	11,532
(P) Equivalent Availability (%)	97.82
(Q) Output Factor (%)	86.79
(R) Heat Rate (BTU/NkWh)	11,176

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY  
 JULY 27, 2022

**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	206	206	308	720
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	84,374	107,001	141,961	333,336
(D) Capacity Factor (%)	55.05	69.81	61.95	62.23
(E) Net mWh Not Generated due to Full Scheduled Outages	18,018	23,470	0	41,488
(F) Scheduled Outages: percent of Period Hrs	11.76	15.31	0.00	7.74
(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	127	127
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.06	0.02
(M) Net mWh Not Generated due to Economic Dispatch	50,872	22,793	87,064	160,729
(N) Economic Dispatch: percent of Period Hrs	33.19	14.87	37.99	30.00
(O) Net mWh Possible in Period	153,264	153,264	229,152	535,680
(P) Equivalent Availability (%)	88.24	84.69	99.94	92.23
(Q) Output Factor (%)	82.25	82.44	61.95	72.22
(R) Heat Rate (BTU/NkWh)	11,217	10,612	2,470	7,297

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	744	744
(C) Net Generation (mWh)	77,447	297,472
(D) Capacity Factor (%)	15.82	60.58
(E) Net mWh Not Generated due to Full Scheduled Outages	102,659	0
(F) Scheduled Outages: percent of Period Hrs	20.97	0.00
(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	177,836	0
(J) Forced Outages: percent of Period Hrs	36.33	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	131,610	193,568
(N) Economic Dispatch: percent of Period Hrs	26.88	39.42
(O) Net mWh Possible in Period	489,552	491,040
(P) Equivalent Availability (%)	42.70	100.00
(Q) Output Factor (%)	53.10	60.58
(R) Heat Rate (BTU/NkWh)	10,746	9,696

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.

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**December 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	248	248	313	809
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	158,470	164,031	230,736	553,237
(D) Capacity Factor (%)	85.89	88.90	99.08	91.92
(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	26,042	20,481	2,136	48,659
(N) Economic Dispatch: percent of Period Hrs	14.11	11.10	0.92	8.08
(O) Net mWh Possible in Period	184,512	184,512	232,872	601,896
(P) Equivalent Availability (%)	100.00	100.00	100.00	100.00
(Q) Output Factor (%)	85.89	91.67	99.08	92.78
(R) Heat Rate (BTU/NkWh)	10,989	10,610	2,508	7,340

Notes:

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

**Duke Energy Carolinas  
Intermediate Power Plant Performance  
Review Plan  
December 2021**

Sykes Exhibit 6  
Schedule 10

OFFICIAL COPY

JULY 27 2022

**Cliffside Station**

**Cliffside 6**

(A) MDC (mW)	849
(B) Period Hrs	744
(C) Net Generation (mWh)	380,358
(D) Net mWh Possible in Period	631,656
(E) Equivalent Availability (%)	96.32
(F) Output Factor (%)	60.22
(G) Capacity Factor (%)	60.22

Notes:

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

I/A  
**Duke Energy Carolinas**  
**Peaking Power Plant Performance**  
**Review Plan**  
**December 2021**

Sykes Exhibit 6  
Schedule 10

**Cliffside Station**

**Unit 5**

(A) MDC (mW)	546
(B) Period Hrs	744
(C) Net Generation (mWh)	-2,805
(D) Net mWh Possible in Period	406,224
(E) Equivalent Availability (%)	0.00
(F) Output Factor (%)	0.00
(G) Capacity Factor (%)	0.00

OFFICIAL COPY

JULY 27 2022

Notes:

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



**Duke Energy Carolinas Base Load Power Plant Performance Review Plan**  
**Report Period: January 2021 - December 2021**

	Oconee 1	Oconee 2	Oconee 3	McGuire 1	McGuire 2	Catawba 1	Catawba 2
(A) MDC (MW)	847	848	859	1158	1158	1160	1150
(B) Period Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760
(C1) Net Gen (MWH)	7,579,868	6,981,796	7,644,799	10,361,236	9,300,878	9,571,297	9,014,422
(C2) Capacity Factor (%)	102.16	93.99	101.59	102.14	91.69	94.19	89.48
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	503,797	0	0	840,901	523,488	883,200
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	6.78	0.00	0.00	8.29	5.15	8.77
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	141	39,112	252	403	26,161	47,272	90,598
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	0.53	0.00	0.00	0.26	0.47	0.90
(F1) Net MWH Not Gen Due to Full Forced Outages	0	51,177	0	0	81,871	78,396	147,045
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	0.69	0.00	0.00	0.81	0.77	1.46
(G1) Net MWH Not Gen due to Partial Forced Outages	-160,289	-147,402	-120,211	-217,559	-105,731	-58,853	-61,265
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-2.16	-1.99	-1.59	-2.14	-1.05	-0.58	-0.61
(H1) Net MWH Not Gen Due to Economic Dispatch	0	0	0	0	0	0	0
(H2) %Net MWH Not Gen Due to Economic Dispatch	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(I1) Core Conservation	0	0	0	0	0	0	0
(I2) % Core Conservation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(J1) Net MWH Possible in Period	7,419,720	7,428,480	7,524,840	10,144,080	10,144,080	10,161,600	10,074,000
(J2) % Net mwh Possible in Period	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
(K) Equivalent Availability (%)	100.00	90.67	100.00	100.00	90.25	93.06	88.87
(L) Output Factor (%)	102.16	101.58	101.59	102.14	100.86	100.12	99.68
(M) Heat Rate (BTU/Net KWH)	10,129	10,085	10,042	9,996	10,073	10,090	10,026

Notes:

- 1) Fields (E1), (E2), (G1), (G2), (H1), (H2), (I1) and (I2) are estimates
  - 2) Fields (D1), (D2), (F1) and (F2) include ramping losses
- EAF is calculated using Standard NERC calculation and excludes OMC events

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**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)	4,275,170	4,734,846
(D) Capacity Factor (%)	43.97	48.69
(E) Net mWh Not Generated due to Full Scheduled Outages	1,696,635	1,108,465
(F) Scheduled Outages: percent of Period Hrs	17.45	11.40
(G) Net mWh Not Generated due to Partial Scheduled Outages	13,357	54,149
(H) Scheduled Derates: percent of Period Hrs	0.14	0.56
(I) Net mWh Not Generated due to Full Forced Outages	157,731	277,075
(J) Forced Outages: percent of Period Hrs	1.62	2.85
(K) Net mWh Not Generated due to Partial Forced Outages	188,070	72,653
(L) Forced Derates: percent of Period Hrs	1.93	0.75
(M) Net mWh Not Generated due to Economic Dispatch	3,392,638	3,476,412
(N) Economic Dispatch: percent of Period Hrs	34.81	35.75
(O) Net mWh Possible in Period	9,723,600	9,723,600
(P) Equivalent Availability (%)	78.86	84.45
(Q) Output Factor (%)	66.62	59.52
(R) Heat Rate (BTU/NkWh)	9,382	9,959

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Buck Combined Cycle Station**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	206	206	306	718
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,350,380	1,370,919	1,814,076	4,535,375
(D) Capacity Factor (%)	74.83	75.97	67.68	72.11
(E) Net mWh Not Generated due to Full Scheduled Outages	106,389	81,507	123,379	311,276
(F) Scheduled Outages: percent of Period Hrs	5.90	4.52	4.60	4.95
(G) Net mWh Not Generated due to Partial Scheduled Outages	114,711	117,301	11,070	243,082
(H) Scheduled Derates: percent of Period Hrs	6.36	6.50	0.41	3.86
(I) Net mWh Not Generated due to Full Forced Outages	14	1,507	434	1,955
(J) Forced Outages: percent of Period Hrs	0.00	0.08	0.02	0.03
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	3,024	3,024
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.11	0.05
(M) Net mWh Not Generated due to Economic Dispatch	233,066	233,325	728,577	1,194,969
(N) Economic Dispatch: percent of Period Hrs	12.92	12.93	27.18	19.00
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,680,560	6,289,680
(P) Equivalent Availability (%)	87.75	88.90	94.86	91.11
(Q) Output Factor (%)	82.76	82.91	72.45	78.35
(R) Heat Rate (BTU/NkWh)	9,691	10,236	1,616	6,626

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Clemson CHP**

Clemson CHP1

(A) MDC (mW)	16
(B) Period Hrs	8,760
(C) Net Generation (mWh)	15,739
(D) Capacity Factor (%)	11.59
(E) Net mWh Not Generated due to Full Scheduled Outages	24,977
(F) Scheduled Outages: percent of Period Hrs	18.40
(G) Net mWh Not Generated due to Partial Scheduled Outages	11,069
(H) Scheduled Derates: percent of Period Hrs	8.15
(I) Net mWh Not Generated due to Full Forced Outages	10,258
(J) Forced Outages: percent of Period Hrs	7.55
(K) Net mWh Not Generated due to Partial Forced Outages	0
(L) Forced Derates: percent of Period Hrs	0.00
(M) Net mWh Not Generated due to Economic Dispatch	73,736
(N) Economic Dispatch: percent of Period Hrs	54.13
(O) Net mWh Possible in Period	135,780
(P) Equivalent Availability (%)	65.90
(Q) Output Factor (%)	80.91
(R) Heat Rate (BTU/NkWh)	11,851

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Dan River Combined Cycle Station**

	Unit 8	Unit 9	Unit ST07	Block Total
(A) MDC (mW)	206	206	308	720
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,228,210	1,262,306	1,682,928	4,173,444
(D) Capacity Factor (%)	68.06	69.95	62.38	66.17
(E) Net mWh Not Generated due to Full Scheduled Outages	157,624	164,209	208,321	530,155
(F) Scheduled Outages: percent of Period Hrs	8.73	9.10	7.72	8.41
(G) Net mWh Not Generated due to Partial Scheduled Outages	138,404	138,401	283,369	560,174
(H) Scheduled Derates: percent of Period Hrs	7.67	7.67	10.50	8.88
(I) Net mWh Not Generated due to Full Forced Outages	11,268	8,992	13,003	33,263
(J) Forced Outages: percent of Period Hrs	0.62	0.50	0.48	0.53
(K) Net mWh Not Generated due to Partial Forced Outages	524	524	1,751	2,799
(L) Forced Derates: percent of Period Hrs	0.03	0.03	0.06	0.04
(M) Net mWh Not Generated due to Economic Dispatch	268,530	230,128	508,708	1,007,366
(N) Economic Dispatch: percent of Period Hrs	14.88	12.75	18.85	15.97
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,698,080	6,307,200
(P) Equivalent Availability (%)	82.94	82.70	81.23	82.14
(Q) Output Factor (%)	80.86	81.25	70.26	76.33
(R) Heat Rate (BTU/NkWh)	10,791	10,678	1,695	7,089

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	1,592,995	3,404,773
(D) Capacity Factor (%)	27.64	58.89
(E) Net mWh Not Generated due to Full Scheduled Outages	2,776,058	686,268
(F) Scheduled Outages: percent of Period Hrs	48.16	11.87
(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	309,786	223,256
(J) Forced Outages: percent of Period Hrs	5.37	3.86
(K) Net mWh Not Generated due to Partial Forced Outages	240,971	118,342
(L) Forced Derates: percent of Period Hrs	4.18	2.05
(M) Net mWh Not Generated due to Economic Dispatch	844,270	1,348,961
(N) Economic Dispatch: percent of Period Hrs	14.56	23.33
(O) Net mWh Possible in Period	5,764,080	5,781,600
(P) Equivalent Availability (%)	42.28	82.22
(Q) Output Factor (%)	64.91	71.49
(R) Heat Rate (BTU/NkWh)	10,324	9,746

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

I/A  
**Duke Energy Carolinas**  
**Baseload Steam and CHP Units**  
**Performance Review Plan**  
**January, 2021 through December, 2021**

Sykes Exhibit 6  
 Schedule 10

OFFICIAL COPY

JULY 27, 2022

**WS Lee Combined Cycle**

	Unit 11	Unit 12	Unit ST10	Block Total
(A) MDC (mW)	248	248	313	809
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,739,729	1,714,227	2,401,701	5,855,657
(D) Capacity Factor (%)	80.08	78.91	87.59	82.63
(E) Net mWh Not Generated due to Full Scheduled Outages	188,306	237,257	244,781	670,345
(F) Scheduled Outages: percent of Period Hrs	8.67	10.92	8.93	9.46
(G) Net mWh Not Generated due to Partial Scheduled Outages	51,608	54,497	0	106,105
(H) Scheduled Derates: percent of Period Hrs	2.38	2.51	0.00	1.50
(I) Net mWh Not Generated due to Full Forced Outages	9,507	0	1,951	11,458
(J) Forced Outages: percent of Period Hrs	0.44	0.00	0.07	0.16
(K) Net mWh Not Generated due to Partial Forced Outages	139	0	0	139
(L) Forced Derates: percent of Period Hrs	0.01	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	183,191	166,498	93,446	443,136
(N) Economic Dispatch: percent of Period Hrs	8.43	7.66	3.41	6.25
(O) Net mWh Possible in Period	2,172,480	2,172,480	2,741,880	7,086,840
(P) Equivalent Availability (%)	88.51	86.57	91.00	88.88
(Q) Output Factor (%)	88.72	89.14	96.57	91.91
(R) Heat Rate (BTU/NkWh)	10,545	10,515	2,312	7,160

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

I/A  
**Duke Energy Carolinas  
Intermediate Power Plant  
Performance Review Plan  
January, 2021 through December, 2021**

Sykes Exhibit 6  
Schedule 10

OFFICIAL COPY

JULY 27, 2022

**Cliffside Station**

<b>Units</b>	<b>Unit 6</b>
(A) MDC (mW)	849
(B) Period Hrs	8,760
(C) Net Generation (mWh)	4,021,882
(D) Net mWh Possible in Period	7,437,240
(E) Equivalent Availability (%)	74.43
(F) Output Factor (%)	72.44
(G) Capacity Factor (%)	54.08

Notes:

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



I/A  
**Duke Energy Carolinas  
Peaking Power Plant  
Performance Review Plan  
January, 2021 through December, 2021**

**Cliffside Station**

<b>Units</b>	<b>Unit 5</b>
(A) MDC (mW)	546
(B) Period Hrs	8,760
(C) Net Generation (mWh)	729,303
(D) Net mWh Possible in Period	4,782,960
(E) Equivalent Availability (%)	42.38
(F) Output Factor (%)	37.28
(G) Capacity Factor (%)	15.25

Notes:

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

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Proposed Nuclear Capacity Factor  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Workpaper 1

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs	9,185,657	9,129,849	9,990,936	9,257,839	6,686,733	7,360,722	7,473,786	59,085,520
Cost (Gross of Joint Owners)	\$ 56,075,776	\$ 52,811,775	\$ 55,286,006	\$ 50,528,496	\$ 38,964,977	\$ 42,478,337	\$ 44,926,459	\$ 341,071,825
\$/MWh	6.1047	5.7845	5.5336	5.4579	5.8272	5.7709	6.0112	
<b>Avg \$/MWh</b>		<b>5.7725</b>						
<b>Cents per kWh</b>		<b>0.5773</b>						

**Sept 2022 -  
August 2023**

<b>MDC</b>			
CATA_UN01	Catawba	MW	1,160.0
CATA_UN02	Catawba	MW	1,150.1
MCGU_UN01	McGuire	MW	1,158.0
MCGU_UN02	McGuire	MW	1,157.6
OCONEE_UN01	Oconee	MW	847.0
OCONEE_UN02	Oconee	MW	848.0
OCONEE_UN03	Oconee	MW	859.0
			<u>7,179.7</u>
<b>Hours In Year</b>			8,760
<b>Generation GWhs</b>			
CATA_UN01	Catawba	GWh	9,186
CATA_UN02	Catawba	GWh	9,130
MCGU_UN01	McGuire	GWh	9,991
MCGU_UN02	McGuire	GWh	9,258
OCONEE_UN01	Oconee	GWh	6,687
OCONEE_UN02	Oconee	GWh	7,361
OCONEE_UN03	Oconee	GWh	7,474
			<u>59,086</u>
<b>Proposed Nuclear Capacity Factor</b>			93.94%

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 NERC 5 Year Average Nuclear Capacity Factor  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 2

	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs with NERC applied	9,295,832	9,216,497	9,279,804	9,276,599	6,911,469	6,919,629	7,009,388	57,909,218
Hours	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760
MDC	1,160.0	1,150.1	1,158.0	1,157.6	847.0	848.0	859.0	7,179.7
Capacity factor	91.48%	91.48%	91.48%	91.48%	93.15%	93.15%	93.15%	92.07%
Cost	\$ 53,660,292	\$ 53,202,329	\$ 53,567,774	\$ 53,549,271	\$ 39,896,533	\$ 39,943,636	\$ 40,461,773	\$ 334,281,608

Avg \$/MWh **5.7725**  
 Cents per kWh **0.5773**

2016-2020	Capacity Rating	NCF Rating	Weighted Average
Oconee 1	847.0	93.15	10.99%
Oconee 2	848.0	93.15	11.00%
Oconee 3	859.0	93.15	11.14%
McGuire 1	1,158.0	91.48	14.75%
McGuire 2	1,157.6	91.48	14.75%
Catawba 1	1,160.0	91.48	14.78%
Catawba 2	1,150.1	91.48	14.65%
	<u>7,179.7</u>		<u>92.07%</u>

Wtd Avg on Capacity Rating

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 North Carolina Generation and Purchased Power in MWhs  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

## Sykes Workpaper 3

Resource Type	Sept 2022 - August 2023	
NUC Total (Gross)	59,085,520	
COAL Total	9,117,091	
Gas CT and CC total (Gross)	29,962,094	
Run of River	4,980,701	
Net pumped Storage	(3,411,289)	
Total Hydro	1,569,412	
Catawba Joint Owners	(14,848,200)	
Lee CC Joint Owners	(876,000)	
DEC owned solar	364,048	
Total Generation		84,373,966
Purchases for REPS Compliance	1,376,121	
Qualifying Facility Purchases - Non-REPS compliance	2,705,790	
Other Purchases	11,994	
Allocated Economic Purchases	610,715	
Joint Dispatch Purchases	4,735,740	
	9,440,360	
Total Generation and Purchased Power		93,814,326
Fuel Recovered Through Intersystem Sales	(1,964,801)	

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected Fuel and Fuel Related Costs  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Resource Type	Sept 2022 - August 2023	
Nuclear Total (Gross)	\$ 341,071,825	
COAL Total	292,853,648	
Gas CT and CC total (Gross)	932,067,312	
Catawba Joint Owner costs	(85,734,604)	
CC Joint Owner costs	(20,639,342)	
Non-Economic Fuel Expense Recovered through Reimbursement	(14,027,557)	
Reagents and gain/loss on sale of By-Products	9,519,806	Workpaper 9
Purchases for REPS Compliance - Energy	66,782,210	
Purchases for REPS Compliance - Capacity	14,610,064	
Purchases of Qualifying Facilities - Energy	40,652,503	
Purchases of Qualifying Facilities - Capacity	8,445,498	
Other Purchases	7,489,994	
JDA Savings Shared	20,748,035	Workpaper 5
Allocated Economic Purchase cost	14,263,480	Workpaper 5
Joint Dispatch purchases	108,842,049	Workpaper 6
<b>Total Purchases</b>	281,833,833	
<b>Fuel Expense recovered through intersystem sales</b>	(66,325,343)	Workpaper 5
<b>Total System Fuel and Fuel Related Costs</b>	<b>\$ 1,670,619,578</b>	

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Joint Dispatch Fuel Impacts  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Positive numbers represent costs to ratepayers, Negative numbers represent removal of costs to ratepayers

	Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment	
	DEP	DEC	DEP	DEC	DEP	DEC	DEP	DEC
9/1/2022	\$ 2,677,577	\$ 3,781,762	\$ (395,675)	\$ (452,046)	\$ (1,193,008)	\$ 1,193,008	\$ 136,476	\$ (136,476)
10/1/2022	\$ 542,827	\$ 803,362	\$ (661,032)	\$ (762,575)	\$ 3,557,663	\$ (3,557,663)	\$ 1,505,004	\$ (1,505,004)
11/1/2022	\$ 695,591	\$ 1,037,984	\$ (1,296,867)	\$ (557,594)	\$ (13,651,324)	\$ 13,651,324	\$ (2,905,662)	\$ 2,905,662
12/1/2022	\$ 569,647	\$ 813,687	\$ (4,426,520)	\$ (2,671,233)	\$ (8,969,486)	\$ 8,969,486	\$ (1,818,339)	\$ 1,818,339
1/1/2023	\$ 717,874	\$ 1,045,814	\$ (9,234,760)	\$ (8,881,053)	\$ (10,170,634)	\$ 10,170,634	\$ (3,592,449)	\$ 3,592,449
2/1/2023	\$ 158,723	\$ 222,173	\$ (7,642,791)	\$ (9,248,399)	\$ (5,978,839)	\$ 5,978,839	\$ (1,638,766)	\$ 1,638,766
3/1/2023	\$ 159,011	\$ 226,144	\$ (2,542,480)	\$ (1,638,517)	\$ (11,192,203)	\$ 11,192,203	\$ (2,501,768)	\$ 2,501,768
4/1/2023	\$ 956,508	\$ 1,344,592	\$ (1,195,044)	\$ (315,259)	\$ (3,210,699)	\$ 3,210,699	\$ (1,096,821)	\$ 1,096,821
5/1/2023	\$ 270,733	\$ 388,566	\$ (1,797,811)	\$ (767,211)	\$ (5,555,240)	\$ 5,555,240	\$ (2,753,841)	\$ 2,753,841
6/1/2023	\$ 1,051,586	\$ 1,467,004	\$ (701,390)	\$ (742,280)	\$ (2,897,748)	\$ 2,897,748	\$ (1,195,439)	\$ 1,195,439
7/1/2023	\$ 867,969	\$ 1,183,718	\$ (953,263)	\$ (1,239,118)	\$ (5,539,686)	\$ 5,539,686	\$ (3,293,157)	\$ 3,293,157
8/1/2023	\$ 1,368,896	\$ 1,948,674	\$ (968,553)	\$ (940,559)	\$ (5,931,346)	\$ 5,931,346	\$ (1,593,273)	\$ 1,593,273

Sept 22 - Aug 23 \$ 14,263,480 \$ (28,215,845) \$ 70,732,550 \$ 20,748,035

rounding differences may occur

\$ 108,842,049 Workpaper 6 - Transfer - Purchases  
\$ (38,109,498) Workpaper 6 - Transfer - Sales  
\$ 70,732,550 Sept 22-Aug 23 Net Fuel Transfer Payment  
  
\$ (38,109,498) Workpaper 6 - Transfer - Sales  
\$ (28,215,845) Sept 22-Aug 23 Economic Sales Cost  
\$ (66,325,343) Total Fuel expense recovered through intersystem sales

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Projected Merger Payments  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Workpaper 6

	Transfer Projection		Purchase Allocation Delta		Purchase	Sale	Fossil Gen Cost		Sale	Purchase
	PECtoDEC	DECtoPEC	PEC	DEC	Adjusted Transfer		PEC	DEC	Pre-Net Payments	
					PECtoDEC	DECtoPEC			PECtoDEC	DECtoPEC
9/1/2022	253,674	164,537	(35,758)	35,758	253,674	200,295	\$ 29.07	\$ 30.86	\$ 6,180,396	\$ 7,373,404
10/1/2022	212,025	305,749	(12,976)	12,976	212,025	318,726	\$ 27.42	\$ 29.40	\$ 9,371,770	\$ 5,814,107
11/1/2022	637,224	24,450	(141)	141	637,224	24,591	\$ 22.69	\$ 32.95	\$ 810,289	\$ 14,461,612
12/1/2022	387,962	37,723	(4,500)	4,500	387,962	42,223	\$ 26.82	\$ 34.00	\$ 1,435,605	\$ 10,405,091
1/1/2023	392,052	31,019	(2,330)	2,330	392,052	33,350	\$ 28.90	\$ 34.73	\$ 1,158,324	\$ 11,328,958
2/1/2023	268,628	41,858	(177)	177	268,628	42,035	\$ 27.60	\$ 34.15	\$ 1,435,273	\$ 7,414,112
3/1/2023	574,004	66,898	(447)	447	574,004	67,344	\$ 23.22	\$ 31.75	\$ 2,137,998	\$ 13,330,201
4/1/2023	385,453	158,440	(17,432)	17,432	385,453	175,872	\$ 19.76	\$ 25.05	\$ 4,405,256	\$ 7,615,955
5/1/2023	492,081	72,823	(5,284)	5,284	492,081	78,107	\$ 15.12	\$ 24.14	\$ 1,885,732	\$ 7,440,972
6/1/2023	343,644	136,582	3,192	(3,192)	346,836	136,582	\$ 18.88	\$ 26.73	\$ 3,650,423	\$ 6,548,171
7/1/2023	369,531	98,967	7,217	(7,217)	376,748	98,967	\$ 22.05	\$ 27.97	\$ 2,768,573	\$ 8,308,259
8/1/2023	393,768	106,684	15,285	(15,285)	409,053	106,684	\$ 21.52	\$ 26.90	\$ 2,869,860	\$ 8,801,206
Sept 22 - Aug 23	4,710,046	1,245,731	(53,351)	53,351	4,735,740	1,324,776			\$ 38,109,498	\$ 108,842,049
									Net Pre-Net Payments	\$ 70,732,550

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Projected and Adjusted Projected Sales and Costs  
Proposed Nuclear Capacity Factor of 93.94%  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Revised Workpaper 7

Fall 2021 Forecast  
Billed Sales Forecast  
Sales Forecast - MWhs (000)

		Projected sales for the Billing Period	Remove impact of SC DERP Net Metered Generation	Adjusted Sales
North Carolina:				
	Residential	22,809,193		22,809,193
	General	22,983,240		22,983,240
	Industrial	12,202,704		12,202,704
	Lighting	239,297		239,297
	NC RETAIL	58,234,434	-	58,234,434
South Carolina:				
	Residential	6,851,656	133,318	6,984,975
	General	5,765,026	42,173	5,807,199
	Industrial	8,959,835	429	8,960,264
	Lighting	39,929	-	39,929
	SC RETAIL	21,616,446	175,921	21,792,367
Total Retail Sales				
	Residential	29,660,849	133,318	29,794,168
	General	28,748,266	42,173	28,790,439
	Industrial	21,162,539	429	21,162,968
	Lighting	279,226	-	279,226
	Retail Sales	79,850,880	175,921	80,026,801
	Wholesale	8,106,092	-	8,106,092
	Projected System MWH Sales for Fuel Factor	87,956,972	175,921	88,132,893
	NC as a percentage of total	66.21%		66.08%
	SC as a percentage of total	24.58%		24.73%
	Wholesale as a percentage of total	9.22%		9.20%
		100.00%		100.00%
<b>SC Net Metering allocation adjustment</b>				
	Total projected SC NEM MWhs		175,921	
	Marginal fuel rate per MWh for SC NEM		\$ 26.07	
	Fuel benefit to be directly assigned to SC Retail		\$ 4,586,518	
	System Fuel Expense		\$ 1,670,619,578	Sykes Exhibit 2 Schedule 1 Page 1 of 3
	Fuel benefit to be directly assigned to SC Retail		\$ 4,586,518	
	Total Fuel Costs for Allocation		\$ 1,675,206,096	Sykes Exhibit 2 Schedule 1 Page 3 of 3, L5

Reconciliation	Allocation to states/classes			
	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from Sykes Exhibit 2 Schedule 1 Page 1	\$ 1,670,619,578			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563			
Other fuel costs	\$ 1,647,564,015			
SC Net Metering Fuel Allocation adjustment	\$ 4,586,518			
Jurisdictional fuel costs after adj.	\$ 1,652,150,533			
		66.08%	9.20%	24.73%
Jurisdictional fuel costs	\$ 1,652,150,533	\$ 1,091,670,180	\$ 151,957,842	\$ 408,522,511
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,518)		\$ -	\$ (4,586,518)
Total system actual fuel costs	\$ 1,647,564,015	\$ 1,091,670,180	\$ 151,957,842	\$ 403,935,993
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,373,745		
Total system fuel expense from Sykes Exhibit 2 Schedule 1 Page 1	\$ 1,670,619,578	\$ 1,107,043,925		

Exh.2, Sch. 1 page 3, Line 13

rounding differences may occur



Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 Proposed Nuclear Capacity Factor of 93.94% and Normalized Test Period Sales  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Fall 2021 Forecast  
 Billed Sales Forecast - Normalized Test Period Sales  
 Sales Forecast - MWhs (000)

	Test Period Sales	Customer Growth Adjustment	Weather Adjustment	Remove impact of SC DERP Net Metered generation	Normalized Test Period Sales
NC RETAIL	58,067,962	(62,454)	413,425	-	58,418,933
SC RETAIL	20,481,464	93,667	133,245	175,921	20,884,297
Wholesale	8,002,184	68,388	41,052	-	8,111,624
<b>Normalized System MWH Sales for Fuel Factor</b>	<b>86,551,610</b>	<b>99,601</b>	<b>587,721</b>	<b>175,921</b>	<b>87,414,853</b>
NC as a percentage of total	<b>67.09%</b>				<b>66.83%</b>
SC as a percentage of total	23.66%				23.89%
Wholesale as a percentage of total	9.25%				9.28%
	100.00%				100.00%

**SC Net Metering allocation adjustment**

Total projected SC NEM MWhs	175,921
Marginal fuel rate per MWh for SC NEM	\$ 26.07
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,518

System Fuel Expense	\$ 1,647,555,144	Sykes Exhibit 2 Schedule 2 Page 1 of 3
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,518	
Total Fuel Costs for Allocation	\$ 1,652,141,662	Sykes Exhibit 2 Schedule 2 Page 3 of 3, L5

Reconciliation	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from Sykes Exhibit 2 Schedule 2 Page 1	\$ 1,647,555,144			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563			
Other fuel costs	\$ 1,624,499,581			
SC Net Metering Fuel Allocation adjustment	\$ 4,586,518			
Jurisdictional fuel costs after adj.	\$ 1,629,086,100			
Allocation to states/classes		66.83%	9.28%	23.89%
Jurisdictional fuel costs	\$ 1,629,086,100	\$ 1,088,718,240	\$ 151,179,190	\$ 389,188,669
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,518)		\$ -	\$ (4,586,518)
Total system actual fuel costs	\$ 1,624,499,581	\$ 1,088,718,240	\$ 151,179,190	\$ 384,602,151
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,373,745		
Total system fuel expense from Sykes Exhibit 2 Schedule 2 Page 1	\$ 1,647,555,144	\$ 1,104,091,985		

Exh. 2, Sch 2 page 3, Line 13

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected and Adjusted Projected Sales and Costs  
 NERC 5 Year Average Nuclear Capacity Factor of 92.07%  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Revised Workpaper 7b

Fall 2021 Forecast  
 Billed Sales Forecast  
 Sales Forecast - MWWhs (000)

	Projected sales for the Billing Period	Remove impact of SC DERP Net Metered generation	Adjusted Sales
North Carolina:			
Residential	22,809,193		22,809,193
General	22,983,240		22,983,240
Industrial	12,202,704		12,202,704
Lighting	239,297		239,297
NC RETAIL	58,234,434	-	58,234,434
South Carolina:			
Residential	6,851,656	133,318	6,984,975
General	5,765,026	42,173	5,807,199
Industrial	8,959,835	429	8,960,264
Lighting	39,929	0	39,929
SC RETAIL	21,616,446	175,921	21,792,367
Total Retail Sales			
Residential	29,660,849	133,318	29,794,167
General	28,748,266	42,173	28,790,440
Industrial	21,162,539	429	21,162,968
Lighting	279,226	-	279,226
Retail Sales	79,850,880	175,921	80,026,801
Wholesale	8,106,092	-	8,106,092
<b>Projected System MWh Sales for Fuel Factor</b>	<b>87,956,972</b>	<b>175,921</b>	<b>88,132,893</b>
NC as a percentage of total	<b>66.21%</b>		<b>66.08%</b>
SC as a percentage of total	24.58%		24.73%
Wholesale as a percentage of total	9.22%		9.20%
	100.01%		100.00%

**SC Net Metering allocation adjustment**

Total projected SC NEM MWWhs	175,921
Marginal fuel rate per MWh for SC NEM	\$ 26.07
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,511

System Fuel Expense	\$ 1,693,825,422	Sykes Exhibit 2 Schedule 3 Page 1 of 3
Fuel benefit to be directly assigned to SC Retail	\$ 4,586,511	
Total Fuel Costs for Allocation	\$ 1,698,411,934	Sykes Exhibit 2 Schedule 3 Page 3 of 3, Line 5

**Reconciliation**

	System	NC Retail Customers	Wholesale	South Carolina Retail
Total system fuel expense from Sykes Exhibit 2 Schedule 3 Page 1	\$ 1,693,825,422			
QF and REPS Compliance Purchased Power - Capacity	\$ 23,055,563			
Other fuel costs	\$ 1,670,769,860			
SC Net Metering Fuel Allocation adjustment	\$ 4,586,511			
Jurisdictional fuel costs after adj.	\$ 1,675,356,371			
Allocation to states/classes		66.08%	9.20%	24.73%
Jurisdictional fuel costs	\$ 1,675,523,907	\$ 1,107,075,490	\$ 154,132,786	\$ 414,315,631
Direct Assignment of Fuel benefit to SC Retail	\$ (4,586,511)		\$ -	\$ (4,586,511)
Total system actual fuel costs	\$ 1,670,937,395	\$ 1,107,075,490	\$ 154,132,786	\$ 409,729,119
QF and REPS Compliance Purchased Power - Capacity	23,055,563	15,373,745		
Total system fuel expense from Sykes Exhibit 2 Schedule 3 Page 1	\$ 1,693,992,958	\$ 1,122,449,235		

Exh. 2, Sch.3 page 3, Line 13

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Annualized Revenue  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 8

	January 2022 Actuals			Normalized Sales	Total Annualized Revenues
	Revenue	kWh Sales	Cents/ kWh	Sykes Exhibit 4	
	(a)	(b)	(a)/(b) *100 = (c)	(d)	
Residential	\$ 209,556,609	2,129,408,268	9.8411	22,961,890	\$ 2,259,696,240
General	\$ 137,324,675	1,921,732,056	7.1459	23,202,419	\$ 1,658,017,092
Industrial	\$ 51,372,485	937,750,891	5.4783	12,293,985	\$ 673,497,148
<b>Total</b>	<b>\$ 398,253,769</b>	<b>4,988,891,215</b>		<b>58,458,294</b>	<b>\$ 4,591,210,481</b>

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Projected Reagents and ByProducts  
 Billing Period September 2022 through August 2023  
 Docket E-7, Sub 1263

Sykes Workpaper 9

Reagent and ByProduct projections

Date	Ammonia	Urea	Limestone	Magnesium Hydroxide	Calcium Carbonate	Lime	Reagent Cost	Gypsum (Gain)/ Loss	Ash (Gain)/Loss	Steam (Gain)/Loss	Sale of By-Products (Gain)/Loss
9/1/2022	\$ 108,717	\$ 13,489	\$ 449,691	\$ 48,393	\$ 29,036	\$ 34,615	\$ 683,941	\$ 128,362	\$ (74,398)	\$ (226,533)	\$ (172,570)
10/1/2022	\$ 51,960	\$ 6,447	\$ 214,926	\$ 26,942	\$ 16,165	\$ 34,615	\$ 351,056	\$ 61,400	\$ (31,726)	\$ (223,486)	\$ (193,812)
11/1/2022	\$ 79,604	\$ 9,877	\$ 329,272	\$ 36,588	\$ 21,953	\$ 34,615	\$ 511,909	\$ 84,600	\$ (43,313)	\$ (220,444)	\$ (179,157)
12/1/2022	\$ 314,933	\$ 39,076	\$ 1,302,676	\$ 112,128	\$ 67,277	\$ 34,615	\$ 1,870,705	\$ 386,006	\$ (232,116)	\$ (217,449)	\$ (63,559)
1/1/2023	\$ 413,327	\$ 51,284	\$ 1,709,669	\$ 144,939	\$ 86,964	\$ 34,615	\$ 2,440,799	\$ 512,709	\$ (261,016)	\$ (214,680)	\$ 37,013
2/1/2023	\$ 337,638	\$ 41,893	\$ 1,396,591	\$ 110,882	\$ 66,529	\$ 34,615	\$ 1,988,148	\$ 415,640	\$ (237,071)	\$ (211,979)	\$ (33,410)
3/1/2023	\$ 106,399	\$ 13,202	\$ 440,102	\$ 49,926	\$ 29,955	\$ 34,615	\$ 674,199	\$ 115,952	\$ (59,337)	\$ (209,446)	\$ (152,831)
4/1/2023	\$ 55,930	\$ 6,940	\$ 231,348	\$ 31,061	\$ 18,637	\$ 34,615	\$ 378,532	\$ 53,252	\$ (22,526)	\$ (207,253)	\$ (176,528)
5/1/2023	\$ 33,535	\$ 4,161	\$ 138,712	\$ 24,580	\$ 14,748	\$ 34,615	\$ 250,351	\$ 32,046	\$ (8,814)	\$ (206,220)	\$ (182,988)
6/1/2023	\$ 81,768	\$ 10,146	\$ 338,222	\$ 42,487	\$ 25,492	\$ 34,615	\$ 532,731	\$ 91,664	\$ (49,255)	\$ (205,355)	\$ (162,945)
7/1/2023	\$ 115,903	\$ 14,381	\$ 479,414	\$ 54,842	\$ 32,905	\$ 34,615	\$ 732,059	\$ 132,485	\$ (71,586)	\$ (204,536)	\$ (143,637)
8/1/2023	\$ 108,411	\$ 13,451	\$ 448,427	\$ 49,538	\$ 29,723	\$ 34,615	\$ 684,165	\$ 112,582	\$ (63,166)	\$ (203,781)	\$ (154,364)
	\$ 1,808,126	\$ 224,347	\$ 7,479,051	\$ 732,305	\$ 439,383	\$ 415,382	\$ 11,098,593	\$ 2,126,699	\$ (1,154,325)	\$ (2,551,161)	\$ (1,578,787)

rounding differences may occur

Total Reagent cost and Sale of By-products \$ 9,519,806

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2021  
Billing Period September 2022 through August 2023  
Docket E-7, Sub 1263

Sykes Revised Workpaper 10

Line No.	Description	Forecast \$	(Over)/Under Collection \$	Total \$
1	Amount in current docket	100,735,755	13,526,437	114,262,192
2	Amount in Sub 1250, prior year docket	102,740,263	(4,999,624)	97,740,638
3	Increase/(Decrease)	(2,004,507)	18,526,061	16,521,554
4	2.5% of 2021 NC retail revenue of \$4,720,136,851			118,003,421
	Excess of purchased power growth over 2.5% of revenue			0
<b>E-7, Sub 1263</b>				
WP 4	Purchases for REPS Compliance - Energy	66,782,210	66.08%	44,126,819
WP 4	Purchases for REPS Compliance - Capacity	14,610,064	66.68%	9,742,178
WP 4	Purchases	7,489,994	66.08%	4,949,066
WP 4	QF Energy	40,652,503	66.08%	26,861,429
WP 4	QF Capacity	8,445,498	66.68%	5,631,567
WP 4	Allocated Economic Purchase cost	14,263,480	66.08%	9,424,695
		152,243,749		100,735,755
<b>E-7, Sub 1250</b>				
	Purchases for REPS Compliance	62,808,851	65.99%	41,447,561
	Purchases for REPS Compliance Capacity	13,866,978	66.90%	9,276,635
	Purchases	2,586,674	65.99%	1,706,946
	QF Energy	53,822,291	65.99%	35,517,330
	QF Capacity	11,169,971	66.90%	7,472,410
	Allocated Economic Purchase cost	11,091,651	65.99%	7,319,380
		155,346,415		102,740,263

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Sykes Workpaper 10a

2021	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	12 ME
System KWH Sales - Sch 4, Adjusted	8,623,321,816	7,033,781,083	6,170,273,584	6,357,924,869	5,750,592,351	7,218,972,840	8,473,666,049	8,688,276,000	8,107,525,420	6,609,883,548	6,537,708,709	7,191,590,664	86,763,516,933
NC Retail KWH Sales - Sch 4	5,785,766,552	4,705,197,397	4,216,101,608	4,307,482,408	3,784,759,966	4,813,117,777	5,540,576,171	5,890,178,638	5,517,650,819	4,297,619,492	4,396,624,370	4,888,703,073	58,143,778,271
NC Retail % of Sales, Adjusted (Calc)	67.09%	66.89%	68.33%	67.75%	65.82%	66.67%	65.39%	67.79%	68.06%	65.02%	67.25%	67.98%	67.01%
NC retail production plant %	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%	66.98%
<b>Fuel and Fuel related component of purchased power</b>													
System Actual \$ - Sch 3 Fuel\$:	\$ 14,110,987	\$ 21,997,962	\$ 7,288,155	\$ 1,159,999	\$ 6,909,766	\$ 19,650,947	\$ 27,256,372	\$ 22,941,922	\$ 20,301,410	\$ 27,877,777	\$ 27,842,536	\$ 26,295,173	\$ 223,633,006
System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases	1,908,455	2,653,190	897,843	1,159,946	1,043,015	1,716,177	3,233,998	2,658,287	1,580,193	2,101,644	2,163,509	2,417,594	\$ 23,533,851
System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance	3,836,471	3,851,010	3,578,469	1,634,328	5,557,142	6,244,501	5,777,306	6,144,771	5,617,037	5,684,750	4,972,836	4,406,882	\$ 57,305,503
System Actual\$ - Sch 3 Fuel-related\$; SC DERP	148,221	63,773	117,353	217,851	155,453	263,492	427,484	260,031	242,117	236,248	246,176	205,494	\$ 2,583,692
System Actual \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases	2,756,782	2,455,383	2,198,548	2,656,105	2,051,181	3,609,263	3,393,224	3,761,968	2,668,737	2,679,082	2,593,637	2,343,504	\$ 33,167,413
Total System Economic & QF\$	22,760,916	31,021,318	14,080,368	6,828,229	15,716,557	31,484,380	40,088,384	35,766,979	30,409,494	38,579,500	37,818,693	35,668,647	340,223,465
<b>Less:</b>													
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 13,085,320	\$ 20,311,355	\$ 6,186,575	\$ 12,225	\$ 6,203,819	\$ 19,379,239	\$ 26,072,774	\$ 21,770,863	\$ 19,434,801	\$ 26,816,502	\$ 23,378,784	\$ 23,491,467	\$ 206,143,723
Total System Economic \$ without Native Load Transfers	\$ 9,675,596	\$ 10,709,964	\$ 7,893,793	\$ 6,816,004	\$ 7,306,104	\$ 8,232,386	\$ 14,015,610	\$ 13,996,116	\$ 10,974,693	\$ 11,762,998	\$ 14,439,909	\$ 12,177,179	\$ 128,000,354
NC Actual \$ (Calc)	\$ 6,491,783	\$ 7,164,353	\$ 5,393,769	\$ 4,617,830	\$ 4,808,522	\$ 5,488,793	\$ 9,164,222	\$ 9,488,606	\$ 7,468,928	\$ 7,648,076	\$ 9,710,873	\$ 8,277,809	\$ 85,723,565
Billed rate (c/kWh):	0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1367	0.1363	0.1357	0.1357	0.1357	
Billed \$:	\$ 7,911,008	\$ 6,433,522	\$ 5,764,770	\$ 5,889,717	\$ 5,174,987	\$ 6,581,084	\$ 7,575,754	\$ 8,053,773	\$ 7,518,618	\$ 5,832,583	\$ 5,966,949	\$ 6,634,781	\$ 79,337,545
(Over)/ Under \$:	\$ (1,419,225)	\$ 730,832	\$ (371,001)	\$ (1,271,887)	\$ (366,465)	\$ (1,092,291)	\$ 1,588,468	\$ 1,434,833	\$ (49,690)	\$ 1,815,493	\$ 3,743,924	\$ 1,643,028	\$ 6,386,020
<b>Capacity component of purchased power</b>													
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$ 430,619	\$ 430,619	\$ 215,311	\$ 215,310	\$ 322,964	\$ 1,399,512	\$ 3,229,644	\$ 3,229,644	\$ 645,929	\$ 215,310	\$ 215,310	\$ 215,310	\$ 10,765,481
System Actual \$ - Capacity component of Purchased Power for REPS Compliance	679,198	657,904	611,495	370,864	1,021,112	874,770	880,403	2,930,150	2,610,093	2,651,828	2,162,592	642,188	\$ 16,092,597
System Actual \$ - Capacity component of HB589 Purpa QF purchases	401,588	376,607	536,828	347,396	110,548	427,589	1,222,705	1,697,840	1,371,802	1,324,805	834,474	281,956	\$ 8,934,138
System Actual \$ - Capacity component of SC DERP	14,999	7,491	12,697	15,442	14,837	24,880	38,885	24,278	22,766	22,049	24,646	19,907	\$ 242,878
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$ 1,526,405	\$ 1,472,621	\$ 1,376,331	\$ 949,012	\$ 1,469,461	\$ 2,726,751	\$ 5,371,637	\$ 7,881,912	\$ 4,650,590	\$ 4,213,992	\$ 3,237,022	\$ 1,159,361	\$ 36,035,094
NC Actual \$ (Calc) (1)	\$ 1,022,340	\$ 986,317	\$ 921,825	\$ 635,619	\$ 984,201	\$ 1,826,295	\$ 3,597,760	\$ 5,279,066	\$ 3,114,825	\$ 2,822,404	\$ 2,168,059	\$ 776,505	\$ 24,135,215
Billed rate (c/kWh):	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0294	0.0291	0.0289	0.0289	0.0289	
Billed \$:	\$ 1,698,557	\$ 1,381,329	\$ 1,237,743	\$ 1,264,570	\$ 1,111,112	\$ 1,413,012	\$ 1,626,576	\$ 1,729,210	\$ 1,608,069	\$ 1,241,743	\$ 1,270,349	\$ 1,412,529	\$ 16,994,798
(Over)/Under \$:	\$ (676,218)	\$ (395,012)	\$ (315,918)	\$ (628,950)	\$ (126,911)	\$ 413,283	\$ 1,971,184	\$ 3,549,856	\$ 1,506,756	\$ 1,580,661	\$ 897,710	\$ (636,024)	\$ 7,140,417
<b>TOTAL (Over)/ Under \$:</b>	<b>\$ (2,095,442)</b>	<b>\$ 335,820</b>	<b>\$ (686,918)</b>	<b>\$ (1,900,837)</b>	<b>\$ (493,375)</b>	<b>\$ (679,008)</b>	<b>\$ 3,559,653</b>	<b>\$ 4,984,689</b>	<b>\$ 1,457,065</b>	<b>\$ 3,396,154</b>	<b>\$ 4,641,634</b>	<b>\$ 1,007,004</b>	<b>\$ 13,526,437</b>

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

(1) January - May NC actual capacity shown herein is adjusted to reflect use of 2020 production plant allocation factor. Actual true-up related to allocator was made as prior period adjustment in May 2021 of Schedule 4.

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
2.5% Calculation Test  
Twelve Months Ended December 31, 2020  
Docket E-7, Sub 1263

Sykes Workpaper 10b

2020	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	12 ME
System KWH Sales - Sch 4, Adjusted	7,193,812,943	7,229,160,762	6,557,632,220	5,948,571,625	5,649,816,171	6,745,745,153	8,113,658,335	8,454,195,025	7,632,668,505	6,227,418,819	7,077,137,814	6,283,453,698	83,113,271,070
NC Retail KWH Sales - Sch 4	4,799,050,153	4,852,514,770	4,419,004,658	4,009,530,882	3,737,497,506	4,445,349,080	5,381,133,760	5,679,285,065	5,143,265,080	4,161,108,724	4,768,316,561	4,115,807,397	55,511,863,636
NC Retail % of Sales, Adjusted (Calc)	66.71%	67.12%	67.39%	67.40%	66.15%	65.90%	66.32%	67.18%	67.38%	66.82%	67.38%	65.50%	66.79%
NC retail production plant %	67.55%	67.55%	67.55%	67.55%	67.55%	67.75%	67.75%	67.75%	67.75%	67.75%	67.75%	67.75%	67.71%
<b>Fuel and Fuel related component of purchased power</b>													
System Actual \$ - Sch 3 Fuel\$:	\$ 11,218,315	\$ 12,607,762	\$ 5,300,111	\$ 6,352,200	\$ 8,395,303	\$ 6,771,661	\$ 12,440,459	\$ 7,247,711	\$ 9,073,495	\$ 15,331,837	\$ 6,958,738	\$ 24,648,415	\$ 126,346,007
System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases	1,491,771	1,826,422	990,649	729,743	909,315	1,057,292	2,012,867	1,346,379	1,036,893	1,743,448	1,074,835	4,774,389	18,994,003
System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance	3,745,116	4,068,302	3,681,838	4,276,231	5,491,472	4,795,757	5,305,337	6,084,262	5,064,982	4,676,649	4,553,039	4,091,116	55,834,101
System Actual\$ - Sch 3 Fuel-related\$; SC DERP	13,291	13,282	28,563	39,932	44,069	110,923	38,018	129,601	69,181	87,074	68,782	37,283	679,999
System Actual \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases	2,051,485	2,097,916	2,123,359	2,681,961	3,213,134	2,547,168	2,552,543	2,889,199	2,519,264	2,799,837	2,863,763	2,568,618	30,908,248
Total System Economic & QF\$	18,519,978	20,613,684	12,124,520	14,080,067	18,053,293	15,282,801	22,349,224	17,697,152	17,763,815	24,638,845	15,519,157	36,119,821	232,762,358
<b>Less:</b>													
Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 9,403,952	\$ 10,746,417	\$ 3,681,146	\$ 5,959,074	\$ 8,211,008	\$ 5,694,556	\$ 12,728,156	\$ 6,086,984	\$ 8,789,272	\$ 15,071,913	\$ 5,685,045	\$ 21,638,297	\$ 113,695,820
Total System Economic \$ without Native Load Transfers	\$ 9,116,026	\$ 9,867,267	\$ 8,443,374	\$ 8,120,993	\$ 9,842,285	\$ 9,588,245	\$ 9,621,068	\$ 11,610,168	\$ 8,974,543	\$ 9,566,932	\$ 9,834,112	\$ 14,481,524	\$ 119,066,539
NC Actual \$ (Calc)	\$ 6,081,374	\$ 6,623,322	\$ 5,689,753	\$ 5,473,813	\$ 6,510,923	\$ 6,318,516	\$ 6,380,877	\$ 7,799,377	\$ 6,047,486	\$ 6,392,544	\$ 6,625,865	\$ 9,485,733	\$ 79,429,582
Billed rate (c/kWh):	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1533	0.1689	0.1689	0.1689	0.1689	
Billed \$:	\$ 7,356,944	\$ 7,438,905	\$ 6,774,334	\$ 6,146,611	\$ 5,729,584	\$ 6,814,720	\$ 8,249,278	\$ 8,706,344	\$ 8,689,317	\$ 7,030,008	\$ 8,055,859	\$ 6,953,473	\$ 87,945,377
(Over)/ Under \$:	\$ (1,275,570)	\$ (815,583)	\$ (1,084,581)	\$ (672,798)	\$ 781,339	\$ (496,204)	\$ (1,868,401)	\$ (906,967)	\$ (2,641,831)	\$ (637,464)	\$ (1,429,993)	\$ 2,532,260	\$ (8,515,795)
<b>Capacity component of purchased power</b>													
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$ 430,619	\$ 430,619	\$ 215,310	\$ 215,310	\$ 322,964	\$ 1,399,512	\$ 3,229,644	\$ 3,229,644	\$ 645,929	\$ 215,310	\$ 215,310	\$ 215,310	\$ 10,765,481
System Actual \$ - Capacity component of Purchased Power for REPS Compliance	645,345	680,159	573,260	641,154	778,381	625,715	2,302,254	2,743,308	2,223,872	1,950,062	637,418	610,344	14,411,272
System Actual \$ - Capacity component of HB589 Purpa QF purchases	264,275	306,973	236,219	277,976	283,502	204,320	1,125,235	1,384,219	1,116,138	1,010,084	297,176	256,193	6,762,310
System Actual \$ - Capacity component of SC DERP	1,869	1,868	12,351	6,569	4,675	15,765	4,866	18,466	9,471	10,816	8,919	5,142	100,777
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$ 1,342,109	\$ 1,419,619	\$ 1,037,140	\$ 1,141,008	\$ 1,389,523	\$ 2,245,312	\$ 6,661,999	\$ 7,375,637	\$ 3,995,410	\$ 3,186,272	\$ 1,158,823	\$ 1,086,989	\$ 32,039,840
NC Actual \$ (Calc) (1)	\$ 906,558	\$ 958,914	\$ 700,560	\$ 770,720	\$ 938,585	\$ 1,521,128	\$ 4,513,293	\$ 4,996,760	\$ 2,706,763	\$ 2,158,598	\$ 785,065	\$ 736,399	\$ 21,693,343
Billed rate (c/kWh):	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0327	0.0328	0.0328	0.0328	0.0328	
Billed \$:	\$ 1,570,139	\$ 1,587,631	\$ 1,445,797	\$ 1,311,826	\$ 1,222,823	\$ 1,454,416	\$ 1,760,583	\$ 1,858,131	\$ 1,686,991	\$ 1,364,844	\$ 1,564,008	\$ 1,349,985	\$ 18,177,174
(Over)/Under \$:	\$ (663,581)	\$ (628,718)	\$ (745,237)	\$ (541,106)	\$ (284,239)	\$ 66,712	\$ 2,752,710	\$ 3,138,628	\$ 1,019,773	\$ 793,755	\$ (778,942)	\$ (613,586)	\$ 3,516,169
<b>TOTAL (Over)/ Under \$:</b>	<b>\$ (1,939,151)</b>	<b>\$ (1,444,300)</b>	<b>\$ (1,829,818)</b>	<b>\$ (1,213,904)</b>	<b>\$ 497,100</b>	<b>\$ (429,492)</b>	<b>\$ 884,309</b>	<b>\$ 2,231,661</b>	<b>\$ (1,622,059)</b>	<b>\$ 156,290</b>	<b>\$ (2,208,936)</b>	<b>\$ 1,918,674</b>	<b>\$ (4,999,624)</b>

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

(1) January - May NC actual capacity shown herein is adjusted to reflect use of 2019 production plant allocation factor. Actual true-up related to allocator was made as prior period adjustment in June 2020 of Schedule 4.

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Actual Sales by Jurisdiction - Subject to Weather  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Sykes Workpaper 11

Line #	Description	Reference	MWhs			% NC	% SC
			NORTH CAROLINA	SOUTH CAROLINA	TOTAL COMPANY		
1	Residential	Company Records	22,424,524	6,819,677	29,244,200	76.68	23.32
2	Total General Service	Company Records	23,396,396	5,297,993	28,694,389		
3	less Lighting and Traffic Signals		249,725	50,082	299,807		
4	General Service subject to weather		23,146,672	5,247,911	28,394,582	81.52	18.48
5	Industrial	Company Records	12,247,042	8,363,794	20,610,836	59.42	40.58
6	Total Retail Sales	1+2+5	58,067,962	20,481,464	78,549,426		
7	Total Retail Sales subject to weather	1+4+5	57,818,237	20,431,382	78,249,619	73.89	26.11

This does not exclude Greenwood and includes the impact of SC DERP net metering generation rounding differences may occur



Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Weather Normalization Adjustment  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Line #	Description	REFERENCE	Total Company MWh	NC RETAIL		SC RETAIL	
				% To Total	MWh	% To Total	MWh
	<u>Residential</u>						
1	Total Residential		442,226	76.68	339,099	23.32	103,127
	<u>General Service</u>						
2	Total General Service		55,501	81.52	45,245	18.48	10,257
	<u>Industrial</u>						
3	Total Industrial		48,942	59.42	29,081	40.58	19,861
4	Total Retail	L1+ L2+ L3	546,669		413,425		133,245
5	Wholesale		41,052				
6	Total Company	L4 + L5	<u>587,721</u>		<u>413,425</u>		<u>133,245</u>

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Weather Normalization Adjustment by Class by Month  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Sykes Revised Workpaper 12  
Page 2

	Residential	Commercial	Industrial	
2021	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	TOTAL MWH ADJUSTMENT	
JAN	(32,231)	(6,216)	-	
FEB	76,342	6,207	5,074	
MAR	(28,114)	-	-	
APR	87,225	-	-	
MAY	22,994	7,646	8,603	
JUN	5,003	2,379	1,202	
JUL	132,023	60,904	22,835	
AUG	115,041	51,399	31,162	
SEP	(100,540)	(54,870)	(24,544)	
OCT	(63,328)	(35,264)	(17,356)	
NOV	37,621	7,905	21,965	
DEC	190,190	15,412	-	
Total	<b>442,226</b>	<b>55,501</b>	<b>48,942</b>	<b>546,669</b>

Wholesale			
2021	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	(3,069)	1	Concord <sup>1</sup>
FEB	4,989	2	Dallas
MAR	(935)	3	Forest City
APR	-	4	Kings Mountain <sup>1</sup>
MAY	(242)	5	Due West
JUN	333	6	Prosperity <sup>2</sup>
JUL	10,240	7	Lockhart
AUG	7,544	8	Western Carolina University
SEP	(3,038)	9	City of Highlands
OCT	(194)	10	Haywood
NOV	7,750	11	Piedmont
DEC	17,674	12	Rutherford
		13	Blue Ridge
Total	<b>41,052</b>	14	Greenwood <sup>1</sup>

<sup>1</sup>Wholesale load is no longer being served by Duke as of December 2018.

<sup>2</sup>Wholesale load is no longer being served by Duke as of December 2019.

rounding differences may occur

Duke Energy Carolinas, LLC  
North Carolina Annual Fuel and Fuel Related Expense  
Customer Growth Adjustment to kWh Sales  
Twelve Months Ended December 31, 2021  
Docket E-7, Sub 1263

Line	Estimation Method <sup>1</sup>	Rate Schedule	NC	SC	Wholesale	Total Company
			Proposed kWh <sup>1</sup> Adjustment	Proposed kWh Adjustment	Proposed kWh Adjustment	
1	Regression	Residential	162,754,384	82,196,305		
2						
3		<b>General Service (Excluding Lighting):</b>				
4	Customer	General Service Small and Large	(239,177,414)	(13,727,966)		
5	Regression	Miscellaneous	(212,139)	117,569		
6		Total General	(239,389,552)	(13,610,396)		
7						
8		<b>Lighting:</b>				
9	Regression	T & T2 (GL/FL/PL/OL) <sup>2</sup>	(3,686,189)	(1,600,396)		
10	Regression	TS	5,186	(3,988)		
11		Total Lighting	(3,681,003)	(1,604,384)		
12						
13		<b>Industrial:</b>				
14	Customer	I - Textile	675,995	3,411,534		
15	Customer	I - Nontextile	17,186,010	23,274,269		
16		Total Industrial	17,862,005	26,685,803		
17						
18						
19		Total	(62,454,166)	93,667,327	68,388,286	99,601,448

WP 13-2

## Notes:

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

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

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

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

rounding differences may occur

Duke Energy Carolinas, LLC  
 North Carolina Annual Fuel and Fuel Related Expense  
 Customer Growth Adjustment to kWh Sales-Wholesale  
 Twelve Months Ended December 31, 2021  
 Docket E-7, Sub 1263

Sykes Revised Workpaper 13  
 Page 2

Calculation of Customer Growth Adjustment to kWh Sales - Wholesale

<u>Line No.</u>	<u>Reference</u>	
1	Total System Resale (kWh Sales)	Company Records 9,405,969,890
2	Less Intersystem Sales	Exhibit 6, Sch 1 <u>1,241,221,539</u>
3	Total kWh Sales Excluding Intersystem Sales	L1 - L2 8,164,748,350
4	Residential Growth Factor	Line 8 <u>0.8376</u>
5	Adjustment to kWhs - Wholesale	L3 * L4 / 100 <u><u>68,388,286</u></u>
6	Total System Retail Residential kWh Sales	Company Records 29,244,200,232
7	2021 Proposed Adjustment kWh - Residential (NC+SC)	WP 13-1 244,950,689
8	Percent Adjustment	L7 / L6 * 100 0.8376

rounding differences may occur

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

### **Coal**

- Near and long-term coal consumption is forecasted based on inputs such as load projections, fleet maintenance and availability schedules, coal quality and cost, non-coal commodity and emission prices, environmental permit and emissions constraints, projected renewable energy production, and wholesale energy imports and exports.
- Station and system inventory targets are developed to provide generational reliability, insulation from short-term market volatility, and adaptability 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 changes in supply needs.
- All qualified suppliers are invited to participate in Request for Proposals to satisfy additional supply needs.
- Spot market solicitations are conducted on an on-going basis to supplement existing purchase commitments.
- Contracts are awarded based on the highest customer value, considering factors such as price, quality, transportation, reliability and flexibility.
- Delivered coal volume and quality are monitored against contract commitments. Coal and freight payments are calculated based on certified scale weights and coal quality analysis meeting ASTM standards as established by ASTM International.

### **Gas**

- Near and long-term natural gas consumption is forecasted based on inputs such as load projections, commodity and emission prices, projected renewable energy production, and fleet maintenance and availability schedules.
- Physical procurement targets are developed to procure a cost effective and reliable natural gas supply.
- Natural gas supply is contracted utilizing a portfolio of long term, short term, spot market and physical call option agreements
- Short-term and long-term Requests for Proposals and market solicitations are conducted with potential suppliers, as needed, 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 determine changes in supply and transportation 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 60-month structured financial natural gas hedging program.

- Through the Asset Management and Delivered Supply Agreement between Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC implemented on January 1, 2103, DEC serves as the designated Asset Manager that procures and manages the combined gas supply needs for the combined Carolinas gas fleet.

### **Fuel Oil**

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

DUKE ENERGY CAROLINAS  
Summary of Coal Purchases  
Twelve Months Ended December 31, 2021 & 2020  
Tons

<u>Line No.</u>	<u>Month</u>	<u>Contract (Tons)</u>	<u>Net Spot Purchase and Sales(Tons)</u>	<u>Total (Tons)</u>
1	January 2021	323,175	272,905	596,079
2	February	178,088	352,765	530,853
3	March	307,174	179,526	486,700
4	April	244,734	259,026	503,760
5	May	214,001	267,134	481,135
6	June	167,453	305,774	473,227
7	July	408,398	114,825	523,222
8	August	477,986	126,407	604,393
9	September	405,691	50,464	456,155
10	October	276,793	140,002	416,795
11	November	75,126	75,590	150,716
12	December	150,700	89,983	240,683
<b>13</b>	<b>Total (Sum L1:L12)</b>	<b>3,229,319</b>	<b>2,234,401</b>	<b>5,463,718</b>

<u>Line No.</u>	<u>Month</u>	<u>Contract (Tons)</u>	<u>Net Spot Purchase and Sales(Tons)</u>	<u>Total (Tons)</u>
14	January 2020	719,300	39,752	759,052
15	February	377,885	130,203	508,088
16	March	511,418	51,906	563,324
17	April	454,145	23,566	477,712
18	May	203,960	12,873	216,833
19	June	306,915	11,563	318,478
20	July	395,057	50,851	445,908
21	August	548,061	25,831	573,892
22	September	400,170	99,692	499,862
23	October	531,876	52,647	584,523
24	November	360,487	111,351	471,838
25	December	326,439	52,176	378,615
<b>26</b>	<b>Total (Sum L14:L25)</b>	<b>5,135,713</b>	<b>662,411</b>	<b>5,798,125</b>

DUKE ENERGY CAROLINAS  
Summary of Gas Purchases  
Twelve Months Ended December 31, 2021 & 2020  
MBTUs

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
1	January 2021	15,219,115
2	February	10,438,520
3	March	10,115,378
4	April	8,394,699
5	May	10,080,567
6	June	13,869,501
7	July	23,083,528
8	August	21,334,474
9	September	17,254,822
10	October	17,385,461
11	November	22,756,045
12	December	19,657,646
<b>13</b>	<b>Total (Sum L1:L12)</b>	<b>189,589,756</b>

<u>Line</u> <u>No.</u>	<u>Month</u>	<u>MBTUs</u>
14	January 2020	13,098,158
15	February	13,151,481
16	March	13,043,284
17	April	6,893,840
18	May	10,414,617
19	June	9,651,972
20	July	13,975,803
21	August	12,871,773
22	September	11,262,855
23	October	11,076,024
24	November	9,927,112
25	December	10,055,686
<b>26</b>	<b>Total (Sum L14:L25)</b>	<b>135,422,605</b>



**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-7, SUB 1263

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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 )

---

**JOHN A. VERDERAME CONFIDENTIAL EXHIBIT 3**

**FILED UNDER SEAL**

**MARCH 1, 2022**