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May 8, 2024

#### **VIA ELECTRONIC FILING**

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

RE: Duke Energy Carolinas, LLC's Supplemental Testimony

Docket No. E-7, Sub 1304

Dear Ms. Dunston:

Please find enclosed Duke Energy Carolinas, LLC's Supplemental Testimony and Exhibits of Sigourney Clark, in the above-referenced proceeding.

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

Sincerely,

Ladawn S. Toon

Enclosures

cc: Parties of Record

#### STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-7, SUB 1304

#### BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	)
Application of Duke Energy Carolinas, LLC	SUPPLEMENTAL TESTIMONY
Pursuant to G.S. 62-133.2 and NCUC Rule	OF SIGOURNEY CLARK FOR
R8-55 Relating to Fuel and Fuel-Related	) DUKE ENERGY CAROLINAS, LLC
Charge Adjustments for Electric Utilities	)

- 2 A. My name is Sigourney Clark. My business address is 5413 Shearon Harris
- 3 Road, New Hill, North Carolina.
- 4 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS
- 5 **PROCEEDING?**
- 6 A. Yes, on February 27, 2024, I caused to be pre-filed with the North Carolina
- 7 Utilities Commission ("NCUC") my direct testimony and 7 exhibits and 12
- 8 supporting workpapers.
- 9 Q. YOUR SUPPLEMENTAL TESTIMONY INCLUDES FOUR (4)
- 10 REVISED EXHIBITS AND ONE (1) REVISED WORKPAPER. WERE
- 11 THESE SUPPLEMENTAL EXHIBITS AND WORKPAPER
- 12 PREPARED BY YOU OR AT YOUR DIRECTION AND UNDER YOUR
- 13 **SUPERVISION?**
- 14 A. Yes. These exhibits were prepared by me and consist of the following:
- 15 Clark Revised Exhibit 1: Summary Comparison of Fuel and Fuel-Related Costs
- Factors.
- 17 Clark Revised Exhibit 2: Calculation of the Proposed Fuel and Fuel-Related
- 18 Cost Factors.
- 19 Clark Revised Exhibit 3: Calculation of the Proposed Experience Modification
- Factor ("EMF") rate.
- Clark Revised Exhibit 4: MWh Sales, Fuel Revenue, and Fuel and Fuel-Related
- Expense, as well as System Peak for the test period.
- Clark Revised Workpaper 7a: Projected and Adjusted Projected Sales and Costs

#### Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?

The purpose of my supplemental testimony is to (1) present revised rates reflecting impacts of the proposed EMF increment for the experienced net underrecovery of fuel and fuel-related costs through March 31, 2024, (2) revise fuel factors for the Industrial customer class to help mitigate their bill impacts on two dates where rates from the current and prior year fuel proceeding would be billed, and (3) revise one of the fuel rate scenarios presented in my direct testimony filing. My testimony is organized into three sections in order to present fuel factors and related customer bill impacts. The first two sections apply to each customer class, whereas the third section only applies to the Industrial customer class. Regarding update (3) above, the scenario based on the proposed nuclear capacity factor and normalized test period sales (as shown on Clark Revised Exhibit 1, Line 5) is updated to reflect a revision to total company test period sales, as shown on Clark Revised Exhibit 4, Line 1. This scenario is informational only, and the Company is not proposing fuel factors based on this scenario, therefore this revision has no impact to customers' proposed fuel factors. For clarity, the Company is proposing the fuel factors detailed on Clark Revised Exhibit 1, Lines 14 and 15 for the applicable time periods indicated

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#### I. Extending the Experience Modification Factor

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2	Q.	NCUC RULE R8-55(D)(3) ALLOWS A UTILITY TO INCORPORATE ITS
3		EXPERIENCED OVER-RECOVERY OR UNDER-RECOVERY OF THE
4		COST OF FUEL AND FUEL-RELATED COSTS UP TO 30 DAYS PRIOR
5		TO THE DATE OF THE HEARING. IS THE COMPANY ELECTING
6		THIS OPTION?
7	A.	Yes, pursuant to NCUC Rule R8-55(d)(3), the Company elects to update its
8		experienced net under-recovery through March 31, 2024, and supplements the
9		direct testimony and exhibits to include the fuel and fuel-related cost recovery
10		balances by customer class, which results in new proposed fuel and fuel-related
11		cost factors.
12	Q.	HOW DID THE FUEL AND FUEL-RELATED COST RECOVERY
13		BALANCE CHANGE IN THE THREE (3) MONTHS BEING
14		INCORPORATED?
15	A.	The Company experienced a net under-collection of \$25,850,038 during the
16		months January through March 2024. As shown on Clark Revised Exhibit 3, Page
17		1, the incorporation of the update period net under-collection balance resulted in
18		a revised, net under-recovered balance of \$241,506,658. While the Company
19		experienced a total net under-recovery for the months of January through March
20		2024, the Residential customer class experienced an over-recovery for this time
21		period of \$1,544,321. Therefore, the EMF increment rate requested to be
22		recovered for the Residential customer class has decreased from the Company's
23		original proposed rates in my direct testimony. Conversely, both the General

1		Service/Lighting and Industrial customer classes experienced under-recoveries for
2		this time period of \$18,632,753 and \$8,761,606, respectively. Therefore, the EMF
3		increment rate requested to be recovered for the General Service/Lighting and
4		Industrial customer classes has increased.
5		II. Docket No. E-7, Sub 1282 Experience Modification Factor Update
6	Q.	ARE THERE OTHER UPDATES THE COMPANY WOULD LIKE TO
7		ADDRESS IN THIS SUPPLEMENTAL FILING?
8	A.	Yes. In Docket No. E-7, Sub 1282 (2023 fuel proceeding), the Company and
9		Public Staff entered into an Agreement and Stipulation of Partial Settlement
10		("Partial Settlement") which, amongst other resolved issues, extended the
11		recovery of the Company's under-recovered 2022 test period fuel balance of
12		approximately \$998 million to a period of 16 months as opposed to the statutory
13		12-month recovery period.
14		The Company has been monitoring the recovery of this \$998 million under-
15		recovered balance since rates in that docket became effective on September 1,
16		2023. At current, through March 31, 2024, the Company has experienced a
17		cumulative, net under-recovery of approximately \$8 million. The under-recovery
18		is driven by softer than expected sales, primarily due to mild weather, particularly
19		from December 2023 to March 2024.

Given the magnitude of this under-recovery, the Company is requesting a new

EMF increment factor (as shown on Clark Revised Exhibit 1, Line 12) to recover

each customer class's portion of this cumulative net under-recovery. This update

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1		results in EMF balance increases of approximately \$6.5 million for Residential
2		customers and \$1.7 million for Industrial customers. However, the Company is
3		seeing an over-recovery for its General Service/Lighting customers of \$67
4		thousand.
5	Q.	IS THE COMPANY SEEKING RECOVERY OF THE APPROXIMATE
6		\$8 MILLION UNDER-RECOVERY THROUGH MARCH 31, 2024, IN
7		THIS SUPPLEMENTAL FILING?
8	A.	Yes, the Company has included each customer class's portion of the net under
9		recovered balance from Docket No. E-7, Sub 1282 on Clark Revised Exhibits 1
10		and 3.
11	Q.	IS THE COMPANY SEEKING ADDITIONAL CARRYING COSTS
12		ASSOCIATED WITH THIS APPROXIMATE \$8 MILLION UNDER-
13		RECOVERY?
14	A.	No. The Company is simply seeking recovery of its approved under-recovered
15		fuel balance from its 2023 fuel proceeding of approximately \$998 million.
16	Q.	IF THE COMPANY WERE TO OVER-RECOVER THE APPROXIMATE
17		\$998 MILLION WHEN THE PRIOR YEAR EMF RATE CEASES TO BE
18		BILLED ON DECEMBER 31, 2024, WOULD IT RETURN THAT OVER-
19		RECOVERY TO CUSTOMERS?
20	A.	Yes, when the Company prepares its 2025 fuel proceeding, if it finds the \$998
21		million has been over-recovered, the Company would seek to flow any over-
22		recovery back to affected customers. Conversely, if the Company finds it has
23		further under-recovered this amount, it would seek to recover that from customers.

Again, the Company is seeking to fully recover its approved fuel expense of approximately \$998 million – no more, no less.

#### Q. WHAT IS THE TOTAL RATE IMPACT OF THESE UPDATES?

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4 A. The Company's aggregate under-recovered amount for North Carolina Retail has increased by \$33,999,401 from the amount filed in my direct testimony Exhibit 3, 5 Page 1. This increased under-recovery includes \$8,149,363 related to Docket No. 6 7 E-7, Sub 1282 that the Company is seeking recovery of in this proceeding. Each customer class's proposed EMF rate represents each class's share of the updated 8 9 under-recovery for the period January 1, 2023, to March 31, 2024. The 10 components of the proposed fuel and fuel-related cost factors by customer class, 11 proposed in this proceeding as shown on Clark Revised Exhibit 1, are as follows:

	Residential	General	Industrial
Description	cents/kWh	cents/kWh	cents/kWh
Total Adjusted Fuel and Fuel Related Costs	2.3061	2.3045	2.2951
EMF Increment (Decrement)	0.4751	0.3221	0.6519
EMF Interest (Decrement)	-	-	0.0060
EMF Increment (Decrement) Docket E-7, Sub 1282	0.0285	(0.0003)	0.0205
Net Fuel and Fuel Related Costs Factors	2.8097	2.6263	2.9735
Net Fuel and Fuel Related Costs Factors cents/kWh (9/1/2024 - 12/31/2024)	4.0760	3.8687	3.6045
Net Fuel and Fuel Related Costs Factors cents/kWh (01/01/2025 - 8/31/2025)	2.8097	2.6263	2.9735

### Q. WHAT IS THE IMPACT TO CUSTOMERS' BILLS IF THE REVISED

#### PROPOSED FUEL AND FUEL-RELATED COSTS FACTORS ARE

#### APPROVED BY THE COMMISSION?

A. Consistent with my direct testimony, all customers will see a temporary bill increase on September 1, 2024, when new rates become effective. This temporary increase is solely the result of the customer mitigation agreed to in the 2023 fuel proceeding, which resulted in an extended recovery period of the under-recovery

1, 2025, when that prior year rate ceases to be billed, all customer classes will see
a bill decrease.
In light of the requests in my supplemental testimony, for the four-month period
September 1, 2024, through December 31, 2024, a typical Residential customer
using 1,000 kWh per month would experience an increase of \$1.78, or 1.3%
(compared to 1.1% from my direct testimony). The impacts for average General
Service/Lighting customers and Industrial customers vary by customer, but are
approximate increases of 3.6% (compared to 2.9%) and 4.3% (compared to 9.1%),
respectively. For the Industrial customer class impacts compared to my direct
testimony, please see Section III - Smoothing of Industrial Class Bill Impacts.
Upon the expiration of the additional four-month billing of the EMF and EMF
interest increment fuel factors from the 2023 fuel proceeding, customer bills are
expected to decrease. A typical Residential customer using 1,000 kWh per month
would experience a decrease of \$12.68, or 8.9% from fuel factors in effect at that
time (no change from my direct testimony). The impacts for average General
Service/Lighting customers and Industrial customers vary by customer, but are
approximate decreases of 12.5% (no change from direct testimony) and 7.6%
(compared to 15.9%), respectively from fuel factors in effect at that time.

of approximately \$998 million through December 31, 2024. However, on January

#### III. Smoothing of Industrial Class Bill Impacts

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2	Q.	PLEASE REMIND THE COMMISSION OF EACH CUSTOMER
3		CLASS'S TYPICAL BILL IMPACT FROM THE COMPANY'S DIRECT
4		FILING.
5	A.	In the Company's direct filing, I testified that for the four-month period beginning
6		September 1, 2024, and ending December 31, 2024, a typical Residential customer
7		using 1,000 kWh per month would experience a temporary increase of \$1.60, or
8		1.1%. The impacts for average General Service/Lighting customers and Industrial
9		customers vary by customer, but are approximate increases of 2.9% and 9.1%,
10		respectively. As reiterated above, these increases are solely due to the customer
11		mitigation agreed to in the prior fuel proceeding and approved by the Commission
12		that resulted in billing the EMF and EMF interest increment fuel factors over 16
13		months.
14	Q.	DOES THE COMPANY RECOGNIZE THAT THE INDUSTRIAL
15		CUSTOMER CLASS'S TYPICAL BILL IMPACTS ARE LARGER THAN
16		THAT OF THE OTHER TWO CUSTOMER CLASSES?
17	A.	Yes.
18	Q.	WHAT IS CAUSING THE INDUSTRIAL CUSTOMER CLASS'S
19		TYPICAL BILL IMPACTS TO BE LARGER THAN THE OTHER TWO
20		CUSTOMER CLASSES?
21	A.	Historically, the Company allocated fuel expense under the uniform percentage
22		methodology, otherwise known as the equal percent methodology. In the
23		Company's most recent general rate case in Docket No. F-7. Sub 1276, the

Commission ordered the Company to discontinue the use of the equal percent methodology in its 2024 fuel proceeding, as I described in my direct testimony. Elimination of the equal percent method in this year's fuel proceeding is impacting the Industrial customer class more significantly than other customer classes. In recent fuel proceedings, fuel expense has increased due to volatile fuel commodity prices. Under the equal percent method, when fuel expense increases, the Industrial customer class is allocated less of the increase. Therefore, the Industrial customer class's fuel factors approved in the 2023 fuel proceeding had the inherent benefit of a lower share of higher fuel expense. With the elimination of the equal percent method in this fuel proceeding, the year-over-year change in the Industrial fuel rate is more significant, such that when the change is applied to a typical Industrial customer's bill, the percentage increase is more pronounced.

## Q. WHAT IS THE COMPANY PROPOSING TO SMOOTH INDUSTRIAL

#### **CUSTOMER BILL IMPACTS?**

A.

In recognition of the larger bill impacts for the Industrial customer class, the Company is proposing to postpone recovery of the current EMF of \$56,017,539 as shown on Clark Revised Exhibit 3, Page 4 (sum of Lines 19 and 22) over an 8-month period, starting January 1, 2025, and continuing through August 31, 2025. By delaying the recovery of the current EMF and allowing only the prior year EMF to be billed through December 31, 2024, the Industrial customers will experience a smaller temporary increase on a typical bill on September 1, 2024, when the prior year EMF fuel factor is still effective. Then, on January 1, 2025, after the prior year EMF fuel factor ceases being billed, Industrial customers

1		would see a decrease in their typical bill of 7.6%.
2	Q.	IS THE COMPANY SEEKING RECOVERY OF CARRYING COSTS
3		ASSOCIATED WITH ITS PROPOSED DELAYED RECOVERY OF THE
4		CURRENT YEAR EMF FROM INDUSTRIAL CUSTOMERS?
5	A.	Yes. By postponing recovery of the current year EMF, the Company is requesting
6		carrying costs of approximately \$497 thousand, at a borrowing rate of 5.5%,
7		which represents the Company's current short-term borrowing rate.
8	Q.	WHAT WILL BE THE BILL IMPACTS TO INDUSTRIAL CUSTOMERS
9		IF THE SMOOTHING PROPOSAL IS ADOPTED?
10	A.	If the smoothing proposal is adopted, Industrial customer bill impacts would result
11		in a temporary increase on September 1, 2024, of 4.3% (compared to 9.1% as
12		stated in my direct testimony) and on January 1, 2025, the bill impact would
13		change from a decrease of 15.9% (as stated in my direct testimony) to a decrease
14		of 7.6%.
15	Q.	DOES THE COMPANY CONSIDER THIS SMOOTHING OPTION TO
16		BE THE ONLY AVAILABLE SMOOTHING OPTION TO THE
17		COMPANY TO ASSIST INDUSTRIAL CUSTOMERS?
18	A.	Yes. If this smoothing option is adopted, the Company would experience a
19		cumulative cash flow impact of the difference in revenues collected from
20		September 1, 2024, to December 31, 2024, of approximately \$19 million. While
21		N.C. General Statute § 62-133.2 allows the Company to recover its reasonably
22		and prudently incurred costs over a 12-month period, the Company is voluntarily
23		proposing this 8-month recovery option as a gesture of goodwill for its Industrial

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- customers to help mitigate bill impacts during the 4-month period where two EMF
- 2 fuel factors would be in effect.
- 3 Q. DOES THIS CONCLUDE YOUR PRE-FILED SUPPLEMENTAL
- 4 TESTIMONY?
- 5 A. Yes, it does.

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, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Line #	Description	Reference	Residential cents/kWh	General cents/kWh	Industrial cents/kWh	Composite cents/kWh
	Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1282)					
1	Approved Fuel and Fuel Related Costs Factors	Input	2.6287	2.2596	1.9328	2.3417
2	EMF Increment (Decrement) cents/kWh	Input	1.2579	1.2342	1.3007	1.2568
3	EMF Interest Increment (Decrement) cents/kWh	Input	0.0084	0.0082	0.0087	0.0084
4	Approved Net Fuel and Fuel Related Costs Factors	Sum	3.8950	3.5020	3.2422	3.6069
	Fuel and Fuel Related Cost Factors Required by Rule R8-55					
5	Proposed Nuclear Capacity Factor of 95.73%	Exh 2 Sch 2 pg 2	2.7859	2.6024	2.9505	2.7035
6	NERC 5 Year Average Nuclear Capacity Factor of 91.90% and Projected Period Sales	Exh 2 Sch 3 pg 2	2.8851	2.7020	3.0490	2.8027
	Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 95.73%					
7	Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh	Exh 2 Sch 1 pg 2	2.2747	2.2832	2.2771	2.2787
8	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Exh 2 Sch 1 pg 2	0.0314	0.0213	0.0180	0.0245
9	Total adjusted Fuel and Fuel Related Costs cents/kWh	Sum	2.3061	2.3045	2.2951	2.3032
10	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4751	0.3221	0.6519	0.4094
11	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	0.0060	0.0008
12	EMF Increment (Decrement) Docket E-7, Sub 1282	Exh 3 pg 2, 3, 4	0.0285	(0.0003)	0.0205	0.0138
13	Net Fuel and Fuel Related Costs Factors cents/kWh	Sum	2.8097	2.6263	2.9735	2.7272
14	Net Fuel and Fuel Related Costs Factors cents/kWh (9/1/2024 - 12/31/2024)		4.0760	3.8687	3.6045	
15	Net Fuel and Fuel Related Costs Factors cents/kWh (01/01/2025 - 8/31/2025)		2.8097	2.6263	2.9735	

Note: Fuel factors exclude regulatory fee

Clark Revised Exhibit 2 Schedule 1 Page 1 of 2

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	60,207,920	0.5518	332,225,252
2	Coal	Workpaper 3 & 4	12,133,505	4.4094	535,009,000
3	Gas CT and CC	Workpaper 3 & 4	25,398,789	3.4009	863,780,065
4	Reagents and Byproducts	Workpaper 8			30,185,368
5	Total Fossil	Sum	37,532,294		1,428,974,434
6	Hydro	Workpaper 3	4,222,386		
7	Net Pumped Storage	Workpaper 3	(3,257,750)		
8	Total Hydro	Sum	964,636		-
9	Solar Distributed Generation	Workpaper 3	431,227		-
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	Line 9	99,136,076		1,761,199,685
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(21,752,442)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,116,637)	_	(77,896,854)
13	Net Generation	Sum Lines 10-13	84,143,439		1,661,550,389
14	Purchased Power	Workpaper 3 & 4	12,586,006	3.1276	393,644,708
15	JDA Savings Shared	Workpaper 5		_	34,396,187
16	Total Purchased Power		12,586,006		428,040,896
17	Total Generation and Purchased Power	Line 13 + Line 16	96,729,446	2.1602	2,089,591,285
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(666,675)	4.1834	(27,889,431)
19	Line losses and Company use	Line 21-Line 18-Line 17	(6,256,346)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			2,061,701,854
21	Projected System MWh Sales At Meter for Fuel Factor	Workpaper 7	89,806,424		89,806,424
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			2.2957

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales at Generator	Workpaper 7	24,198,399	26,115,830	13,078,907	63,393,136
Calcula	tion of Fuel (Non-Capacity) Rate by Class					Amount
2	System Fuel (Non-Capacity) Costs	Workpaper 7 - Line 11			\$	2,043,629,333
3	NC Portion - Jurisdictional % based on Projected Billing Period MWh Sales at Generator	Workpaper 7				66.69%
4	NC Retail Fuel (Non-Capacity) Costs before 2.5% Purchase Power Test	Line 2 * Line 3			\$	1,362,896,402
5	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 9				-
6	NC Retail Fuel (Non-Capacity) Costs Allowable Under GEN. STAT. § 62-133.2(A2)	Line 4 + Line 5			\$	1,362,896,402
7	NC Retail Projected Billing Period MWh Sales Allocation Factors at Generator	Line 1 / Line 1 Total	38.17%	41.20%	20.63%	100.00%
8	Fuel (Non-Capacity) Costs allocated on Projected Billing Period MWh Sales	Line 6 * Line 7	\$ 520,244,197 \$	561,467,273 \$	281,184,932 \$	1,362,896,402
Calcula	tion of Renewable and Cogeneration Purchased Power Capacity Rate by Class					Amount
9	Purchased Power for REPS Compliance - Capacity	Workpaper 4			\$	11,295,326
10	QF Purchased Power - Capacity	Workpaper 4				10,496,458
11	Total of Renewable and QF Purchased Power Capacity	Line 9 + Line 10			\$	21,791,784
12	NC Portion - Jursidicational % based on 2022 Production Demand Allocator	Input				67.12%
13	NC Renewable and QF Purchased Power - Capacity	Line 11 * Line 12			\$	14,626,471
14	2022 Production Demand Allocation Factors	Input	49.05%	35.73%	15.22%	100.00%
15	Renewable and QF Purchased Power - Capacity allocated on 2022 Production Demand Allocator	Line 13 * Line 14	\$ 7,174,604 \$	5,226,011 \$	2,225,856 \$	14,626,471
16	Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales at Meter	Line 15 / Line 1 / 10	0.0314	0.0213	0.0180	0.0245
Billed F	ates					
17	NC Projected Billing Period MWh Sales at Meter	Workpaper 7	22,870,391	24,590,927	12,348,188	59,809,506
			cents/kWh	cents/kWh	cents/kWh	cents/kWh
18	Fuel (Non-Capacity) cents/kWh based on Projected Billing Period MWh Sales	Line 8 / Line 17 / 10	2.2747	2.2832	2.2771	2.2787
19	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 16	0.0314	0.0213	0.0180	0.0245
20	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 18 + Line 19	2.3061	2.3045	2.2951	2.3032
21	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4751	0.3221	0.6519	0.4094
22	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	0.0060	0.0008
23	EMF Increment (Decrement) Docket E-7, Sub 1282	Exh 3 pg 2, 3, 4	0.0285	(0.0003)	0.0205	0.0138
24	Net Fuel and Fuel Related Costs Factors cents/kWh	Line 20 + Line 21 + Line 22	2.8097	2.6263	2.9735	2.7272

Note: Rounding differences may occur

Clark Revised Exhibit 2 Schedule 2 Page 1 of 2

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	60,207,920	0.5518	332,225,252
2	Coal	Workpaper 3 & 4	10,995,097	4.4094	484,812,565
3	Gas CT and CC	Workpaper 3 & 4	25,398,789	3.4009	863,780,065
4	Reagents and Byproducts	Workpaper 8	-		30,185,368
5	Total Fossil	Sum	36,393,885		1,378,777,998
6	Hydro	Workpaper 3	4,222,386		
7	Net Pumped Storage	Workpaper 3	(3,257,750)		
8	Total Hydro	Sum	964,636		
9	Solar Distributed Generation	Workpaper 3	431,227		
		Line 1 + Line 5 + Line 8 + Lir	ne		
10	Total Generation	9	97,997,668		1,711,003,250
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(21,752,442)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(14,116,637)	_	(77,896,854)
13	Net Generation	Sum Lines 10-13	83,005,031		1,611,353,953
14	Purchased Power	Workpaper 3 & 4	12,586,006		393,644,708
15	JDA Savings Shared	Workpaper 5			34,396,187
16	Total Purchased Power		12,586,006		428,040,896
17	Total Generation and Purchased Power	Line 13 + Line 16	95,591,037		2,039,394,849
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(666,675)		(27,889,431)
19	Line losses and Company use	Line 21-Line 18-Line 17	(6,256,346)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			2,011,505,418
21	Normalized Test Period MWh Sales	Exhibit 4	88,668,015		88,668,015
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			2.2686

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Normalized Test Period mWh Sales at Generator	Workpaper 7a	24,131,647	25,991,687	12,397,056	62,520,389
Calcula	tion of Fuel (Non-Capacity) Rate by Class					Amount
2	System Fuel (Non-Capacity) Costs	Workpaper 7a - Line 11			\$	1,993,432,898
3	NC Portion - Jurisdictional % based on Projected Billing Period MWh Sales at Generator	Workpaper 7a				66.72%
4	NC Retail Fuel (Non-Capacity) Costs before 2.5% Purchase Power Test	Line 2 * Line 3			\$	1,329,967,099
5	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 9				-
6	NC Retail Fuel (Non-Capacity) Costs Allowable Under GEN. STAT. § 62-133.2(A2)	Line 4 + Line 5			\$	1,329,967,099
7	NC Retail Projected Billing Period MWh Sales Allocation Factors at Generator	Line 1 / Line 1 Total	38.60%	41.57%	19.83%	100.00%
8	Fuel (Non-Capacity) Costs allocated on Projected Billing Period MWh Sales	Line 6 * Line 7	\$ 513,341,271 \$	552,909,042	\$ 263,716,786 \$	1,329,967,099
Calcula	tion of Renewable Purchased Power Capacity Rate by Class					Amount
9	Purchased Power for REPS Compliance - Capacity	Workpaper 4			\$	11,295,326
10	QF Purchased Power - Capacity	Workpaper 4				10,496,458
11	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3			\$	21,791,784
12	NC Portion - Jursidicational % based on 2022 Production Demand Allocator	Input				67.12%
13	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5			\$	14,626,471
14	2022 Production Demand Allocation Factors	Input	49.05%	35.73%	15.22%	100.00%
15	Renewable and QF Purchased Power - Capacity allocated on 2022 Production Demand Allocator	Line 6 * Line 7	\$ 7,174,604 \$	5,226,011	\$ 2,225,856 \$	14,626,471
16	Renewable and QF Purchased Power - Capacity cents/kWh based on Normalized Test Period Sales at Meter	Line 8 / Line 1 / 10	0.0315	0.0214	0.0190	0.0248
Billed R	tates					
	NC Normalized Test Period MWh Sales at Meter	Exhibit 4	22,807,302	24,474,032	11,704,432	58,985,766
			cents/kWh	cents/kWh	cents/kWh	cents/kWh
18	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	2.2508	2.2592	2.2531	2.2547
19	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0315	0.0214	0.0190	0.0248
20	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.2823	2.2806	2.2721	2.2795
21	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4751	0.3221	0.6519	0.4094
22	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	0.0060	0.0008
23	EMF Increment (Decrement) Docket E-7, Sub 1282	Exh 3 pg 2, 3, 4	0.0285	(0.0003)	0.0205	0.0138
24	Net Fuel and Fuel Related Costs Factors cents/kWh	Line 20 + Line 21 + Line 22 + Line 23	2.7859	2.6024	2.9505	2.7035
	·					

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
NERC 5 Year Average Nuclear Capacity Factor of 91.90% and Projected Period Sales
Test Period Ended December 31, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Clark Revised Exhibit 2 Schedule 3 Page 1 of 2

Line #	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Fuel Cost (\$)
			D	E	D * E = F
1	Total Nuclear	Workpaper 1	57,797,776	0.5518	318,926,159
2	Coal	Workpaper 3 & 4	13,978,555	4.4094	616,363,766
3	Gas CT and CC	Workpaper 3 & 4	25,398,789	3.4009	863,780,065
4	Reagents and Byproducts	Workpaper 8		_	30,185,368
5	Total Fossil	Sum	39,377,344		1,510,329,199
6	Hydro	Workpaper 3	4,222,386		
7	Net Pumped Storage	Workpaper 3	(3,257,750)		
8	Total Hydro	Sum	964,636		
9	Solar Distributed Generation	Workpaper 3	431,227		
		Line 1 + Line 5 + Line 8 +			
10	Total Generation	Line 9	98,570,982		1,829,255,358
11	Less Lee CC Joint Owners	Workpaper 3 & 4	(876,000)		(21,752,442)
12	Less Catawba Joint Owners	Workpaper 3 & 4	(13,551,543)	-	(74,778,615)
13	Net Generation	Sum Lines 10-13	84,143,439		1,732,724,301
14	Purchased Power	Workpaper 3 & 4	12,586,006		393,644,708
15	JDA Savings Shared	Workpaper 5		_	34,396,187
16	Total Purchased Power	0	12,586,006		428,040,896
17	Total Generation and Purchased Power	Line 13 + Line 16	96,729,446		2,160,765,196
18	Fuel expense recovered through intersystem sales	Workpaper 3 & 4	(666,675)		(27,889,431)
19	Line losses and Company use	Line 21-Line 18-Line 17	(6,256,346)		-
20	System Fuel Expense for Fuel Factor	Lines 17 + 18 + 19			2,132,875,765
21	Projected System MWh Sales At Meter for Fuel Factor	Workpaper 7	89,806,424		89,806,424
22	Fuel and Fuel Related Costs cents/kWh	Line 20 / Line 21 / 10			2.3750

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales at Generator	Workpaper 7b	24,198,399	26,115,830	13,078,907	63,393,136
Calculat	ion of Fuel (Non-Capacity) Rate by Class					Amount
2	System Fuel (Non-Capacity) Costs	Workpaper 7b - Line 11			\$	2,114,803,245
3	NC Portion - Jurisdictional % based on Projected Billing Period MWh Sales at Generator	Workpaper 7b				66.58%
4	NC Retail Fuel (Non-Capacity) Costs before 2.5% Purchase Power Test	Line 2 * Line 3			\$	1,408,036,000
5	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 9				-
6	NC Retail Fuel (Non-Capacity) Costs Allowable Under GEN. STAT. § 62-133.2(A2)	Line 4 + Line 5			\$	1,408,036,000
7	NC Retail Projected Billing Period MWh Sales Allocation Factors at Generator	Line 1 / Line 1 Total	38.17%	41.20%	20.63%	100.00%
8	Fuel (Non-Capacity) Costs allocated on Projected Billing Period MWh Sales	Line 6 * Line 7	\$ 537,474,864 \$	580,063,263 \$	290,497,874 \$	1,408,036,000
Calculat	ion of Renewable Purchased Power Capacity Rate by Class					Amount
9	Purchased Power for REPS Compliance - Capacity	Workpaper 4			\$	11,295,326
10	QF Purchased Power - Capacity	Workpaper 4				10,496,458
11	Total of Renewable and QF Purchased Power Capacity	Line 2 + Line 3			\$	21,791,784
12	NC Portion - Jursidicational % based on 2022 Production Demand Allocator	Input				67.12%
13	NC Renewable and QF Purchased Power - Capacity	Line 4 * Line 5			\$	14,626,471
14	2022 Production Demand Allocation Factors	Input	49.05%	35.73%	15.22%	100.00%
15	Renewable and QF Purchased Power - Capacity allocated on 2022 Production Demand Allocator	Line 6 * Line 7	\$ 7,174,604 \$	5,226,011 \$	2,225,856 \$	14,626,471
16	Renewable and QF Purchased Power - Capacity cents/kWh based on Normalized Test Period Sales at Meter	Line 8 / Line 1 / 10	0.0314	0.0213	0.0180	0.0245
Billed R	ates					
	NC Projected Billing Period MWh Sales at Meter	Workpaper 7b	22,870,391	24,590,927	12,348,188	59,809,506
			cents/kWh	cents/kWh	cents/kWh	cents/kWh
10	Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh	Line 15 - Line 11 - Line 13 -				
18	ruel and ruel Related Costs excluding Purchased Power for REPS Compilance and QF Purchased Capacity Cents/RWF	Line 14	2.3501	2.3589	2.3526	2.3542
19	REPS Compliance and QF Purchased Power - Capacity cents/kWh	Line 9	0.0314	0.0213	0.0180	0.0245
20	Total adjusted Fuel and Fuel Related Costs cents/kWh	Line 10 + Line 11	2.3815	2.3802	2.3706	2.3787
21	EMF Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	0.4751	0.3221	0.6519	0.4094
22	EMF Interest Increment (Decrement) cents/kWh	Exh 3 pg 2, 3, 4	-	-	0.0060	0.0008
23	EMF Increment (Decrement) Docket E-7, Sub 1282	Exh 3 pg 2, 3, 4	0.0285	(0.0003)	0.0205	0.0138
24	Net Fuel and Fuel Related Costs Factors cents/kWh	Line 20 + Line 21 + Line 22 + Lin	2.8851	2.7020	3.0490	2.8027

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Proposed Composite
Test Period Ended December 31, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Clark Revised Exhibit 3
Page 1 of 4

		Fuel Cost Incurred ¢/kWh	Fuel Cost Billed ¢/kWh	NC Retail MWh Sales	(0	Reported Over)/ Under Recovery
Line		(a)	(b)	(c)		(d)
No.	Month					
1	January 2023			5,297,871		79,470,094
2	February			4,651,448		25,314,780
3	March			4,457,423		15,168,768
4	April			4,384,886		(11,360,755)
5	May <sup>(1)</sup>			4,081,226		5,420,934
6	June			4,645,596		11,033,435
7	July			5,265,835		47,605,379
8	August			5,747,161		34,762,091
9	September			5,553,369		(6,562,753)
10	October (1)			4,434,405		(13,011,598)
11	November <sup>(1)</sup>			4,239,285	-	20,573,604
12	December			4,771,175		7,242,642
13	Total Test Period			57,529,680	\$	215,656,620
14	January 2024				\$	58,961,846
15	February 2024				\$	(23,593,264)
16	March 2024		(2)		\$	(9,518,544)
17	Total (Over)/Under Recovery - Upd	ate Period January -	March 2024 (**		\$	25,850,038
18	Adjusted (Over)/Under Recovery				\$	241,506,658
19	NC Retail Normalized Test Period M	Wh Sales		Exhibit 4		58,985,766
20	Experience Modification Increment	(Decrement) cents/	kWh			0.4094
21	Total (Over)/Under Recovery from D	ocket E-7, Sub 1282			\$	8,149,363
22	Docket E-7, Sub 1282 Experience M	odification Increme	nt (Decrement) cents/l	kWh		0.0138
23	Annual Interest Rate					0.0550
24	Monthly Interest Rate					0.0046
25	Number of Months (09/01/2024 - 0	3/31/2025)				12.0000
26	Interest				\$	497,839
27	EMF Interest Increment (Decrement	:)		(Industrial Class Only)		0.0008

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

<sup>&</sup>lt;sup>(2)</sup> January, February and March 2024 are included for Commission review in accordance with NC Rule R8-55(d)(3). These periods will be subject to review in the next annual fuel and fuel-related costs filing.

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Residential
Test Period Ended December 31, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Clark Revised Exhibit 3
Page 2 of 4

Line #	Month	Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)	Reported (Over)/ Under Recovery (d)
1	January 2023	3.1036	2.0003	2,399,460	\$ 26,474,056
2	February	2.5164	2.0003	1,864,517	9,622,919
3	March	2.4815	2.0003	1,655,681	7,967,786
4	April	1.9527	2.0003	1,510,762	(718,502)
5	May <sup>(1)</sup>	2.5601	2.0003	1,327,128	\$ 7,425,845
6	June	2.5914	2.0003	1,572,607	\$ 9,295,437
7	July	2.9775	2.0003	2,046,660	\$ 20,000,532
8	August	2.6251	2.0003	2,263,463	\$ 14,141,807
9	September	2.2559	2.2832	2,114,514	\$ (577,804)
10	October (1)	2.7002	2.6287	1,437,145	\$ 1,049,328
11	November <sup>(1)</sup>	3.6305	2.6287	1,417,824	\$ 14,200,655
12	December	2.6817	2.6287	1,934,641	\$ 1,025,051
13	Total Test Period		_	21,544,402	\$ 109,907,112
14	Test Period Wtd Avg. ¢/kWh	2.6778	2.1678		
15	January 2024				\$ 14,838,914
16	February 2024				\$ (14,071,667)
17	March 2024				\$ (2,311,568)
18	Total (Over)/Under Recovery - Update Period Jan	nuary - March 2024 <sup>(2)</sup>			\$ (1,544,321)
19	Adjusted (Over)/Under Recovery				\$ 108,362,791
20	NC Retail Normalized Test Period MWh Sales		I	Exhibit 4	22,807,302
21	Experience Modification Increment (Decrement)	cents/kWh			0.4751
22	Total (Over)/Under Recovery from Docket E-7, Su	b 1282			\$ 6,508,910
23	Docket E-7, Sub 1282 Experience Modification In	crement (Decrement) o	cents/kWh		0.0285

#### Notes:

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

<sup>(2)</sup> January, February and March 2024 are included for Commission review in accordance with NC Rule R8-55(d)(3). These periods will be subject to review in the next annual fuel and fuel-related costs filing.

Duke Energy Carolinas, LLC

North Carolina Annual Fuel and Fuel Related Expense

Calculation of Experience Modification Factor - GS/Lighting

Test Period Ended December 31, 2023

Billing Period Sept 2024 through Aug 2025

Docket E-7, Sub 1304

Clark Revised Exhibit 3
Page 3 of 4

Line 		Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)		Reported (Over)/ Under Recovery (d)
#	Month	2 4444	4 0247	2.010.240	<u>,</u>	22 552 420
1	January 2023	3.4411	1.8217	2,010,240		32,553,429
2 3	February March	2.3598 2.0495	1.8217 1.8217	1,844,325 1,861,027	\$ ¢	9,925,065
_						4,239,231
4	April	1.4316	1.8217	1,911,294		(7,455,265)
5	May <sup>(1)</sup>	1.7512	1.8217	1,801,039	\$	(1,224,776)
6	June	1.8406	1.8217	2,054,971	\$	387,410
7	July	2.5540	1.8217	2,212,006	\$	16,198,827
8	August	2.2981	1.8217	2,397,091	\$	11,419,084
9	September	1.8501	2.0188	2,362,490	\$	(3,986,444)
10	October (1)	1.7729	2.2596	2,004,937	\$	(9,737,062)
11	November <sup>(1)</sup>	2.5369	2.2596	1,862,894	\$	5,162,455
12	December	2.3964	2.2596	1,988,005	\$	2,719,455
13	Total Test Period			24,310,321	\$	60,201,409
14	Test Period Wtd Avg. ¢/kWh	2.1937	1.9463			
15	January 2024				\$	29,444,988
16	February 2024				\$	(6,236,063)
17	March 2024				\$ \$ \$	(4,576,172)
18	Total (Over)/Under Recovery - Update Peri	od January - March	<b>2024</b> <sup>(2)</sup>		\$	18,632,753
19	Adjusted (Over)/Under Recovery				\$	78,834,162
20	NC Retail Normalized Test Period MWh Sale	es	Į.	Exhibit 4		24,474,032
21	Experience Modification Increment (Decre	ment) cents/kWh				0.3221
22	Total (Over)/Under Recovery from Docket E	-7, Sub 1282			\$	(67,379)
23	Docket E-7, Sub 1282 Experience Modificat	ion Increment (Deci	rement) cents/	kWh		(0.0003)

#### Notes:

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

<sup>&</sup>lt;sup>(2)</sup> January, February and March 2024 are included for Commission review in accordance with NC Rule R8-55(d)(3). These periods will be subject to review in the next annual fuel and fuel-related costs filing.

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Calculation of Experience Modification Factor - Industrial
Test Period Ended December 31, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Clark Revised Exhibit 3 Page 4 of 4

Line		Fuel Cost Incurred ¢/kWh (a)	Fuel Cost Billed ¢/kWh (b)	NC Retail MWh Sales (c)		Reported (Over)/ Under Recovery (d)
#	Month					
1	January 2023	4.1413	1.8396	888,171	\$	20,442,609
2	February	2.4514	1.8396	942,606	\$	5,766,796
3	March	2.1544	1.8396	940,715	\$	2,961,751
4	April	1.5086	1.8396	962,830	\$	(3,186,988)
5	May <sup>(1)</sup>	1.7572	1.8396	953,059	\$	(780,135)
6	June	1.9723	1.8396	1,018,017	\$	1,350,588
7	July	2.9721	1.8396	1,007,169	\$	11,406,019
8	August	2.6864	1.8396	1,086,607	\$	9,201,200
9	September	1.6959	1.8816	1,076,365	\$	(1,998,505)
10	October (1)	1.4960	1.9328	992,323	\$	(4,323,864)
11	November <sup>(1)</sup>	2.0592	1.9328	958,566	\$	1,210,494
12	December	2.3451	1.9328	848,529	\$	3,498,136
13	Total Test Period			11,674,957	\$	45,548,101
14	Test Period Wtd Avg. ¢/kWh	2.2558	1.8658			
15	January 2024				\$ \$	14,677,944
16	February 2024				\$	(3,285,534)
17	March 2024		(0)		\$	(2,630,804)
18	Total (Over)/Under Recovery - Update	Period January - N	/larch 2024 <sup>(2)</sup>		\$	8,761,606
19	Adjusted (Over)/Under Recovery				\$	54,309,707
20	NC Retail Projected MWh Sales (1/1/25	to 8/31/25)				8,330,385
21	Experience Modification Increment (Do	ecrement) cents/K	Wh			0.6519
22	Total (Over)/Under Recovery from Dock	et E-7, Sub 1282			\$	1,707,832
23	Docket E-7, Sub 1282 Experience Modif	ication Increment	(Decrement) ce	ents/kWh		0.0205
24	Annual Interest Rate					5.5%
25	Monthly Interest Rate					0.4583%
26	Number of Months (09/01/2024 - 08/3	1/2025)				12
27	Interest				\$	497,839
28	EMF Interest Increment (Decrement)					0.0060

#### Notes:

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

<sup>&</sup>lt;sup>(2)</sup> January, February and March 2024 are included for Commission review in accordance with NC Rule R8-55(d)(3). These periods will be subject to review in the next annual fuel and fuel-related costs filing.

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, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

Description	Reference	Total Compar		North Carolina Retail	North Carolina Residential	North Carolina General Service/Lighting	North Carolina Industrial
	Fullible C Cabadula 4 (Lina 4) and						
Test Deviced MANA/h Color (evaluating interpretate color)	, ,	96.356	724	F7 F20 C00	21 544 402	24 210 221	11 (74 057
, , ,							11,674,957
•			•	,	•	, , ,	12,311
•		•	•	1,272,028	1,046,809	208,055	17,164
·							
		•	•				11,704,432
Total Normalized MWh Sales at Generation	Workpaper 7a	93,709	,236	62,520,389	24,131,647	25,991,687	12,397,056
Test Period Fuel and Fuel Related Revenue *		\$ 2,052,616	,593 \$	1,158,026,193			
Test Period Fuel and Fuel Related Expense *		\$ 2,055,925	,006 \$	1,373,682,811			
Test Period Unadjusted (Over)/Under Recovery		\$ 3,308	,413 \$	215,656,620			
		2022					
Total System Peak		17,857	,406				
NC Retail Peak		12,050	,576				
NC Residential Peak		5,580	,183				
		•	•				
, 8 8		•	•				
	Test Period MWh Sales (excluding inter system sales) Customer Growth MWh Adjustment Weather MWh Adjustment Remove Impact of SC DERP Net Metered MWh Total Normalized MWh Sales at Meter Total Normalized MWh Sales at Generation  Test Period Fuel and Fuel Related Revenue * Test Period Fuel and Fuel Related Expense * Test Period Unadjusted (Over)/Under Recovery	Total System Peak NC Retail Peak NC Residential Peak NC General Service/Lighting Peak NC General Service/Lighting Peak NC General Service/Lighting Peak NC Residential Peak NC General Service/Lighting Peak  Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC Retail) Workpaper 12 Pg 1 Workpaper 11 Pg 1 Workpaper 7a Sum Workpaper 7a Sum Workpaper 7a  Test Period Fuel and Fuel Related Revenue * Test Period Fuel and Fuel Related Expense * Test Period Unadjusted (Over)/Under Recovery	Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC Retail)  Test Period MWh Sales (excluding inter system sales) Customer Growth MWh Adjustment Workpaper 12 Pg 1 Workpaper 11 Pg 1 Workpaper 11 Pg 1 Workpaper 11 Pg 1 Workpaper 12 Pg 1 Workpaper 11 Pg 1 Workpaper 12 Pg 1 Workpaper 13 Pg 1 Workpaper 13 Pg 1 Workpaper 14 Pg 1 Workpaper 7a Workpaper 11 Pg 1 Workpaper 12 Pg 1	Exhibit 6 Schedule 1 (Line 4) and Exhibi	Exhibit 6 Schedule 1 (Line 4) and   Test Period MWh Sales (excluding inter system sales)   Workpaper 11 (NC Retail)   86,356,724   57,529,680   Customer Growth MWh Adjustment   Workpaper 12 Pg 1   404,481   184,058   404,481	Exhibit 6 Schedule 1 (Line 4) and   Exhibit 6 Schedule 1 (Line 4) and   Test Period MWh Sales (excluding inter system sales)   Workpaper 11 (NC Retail)   86,356,724   57,529,680   21,544,402   Customer Growth MWh Adjustment   Workpaper 12 Pg 1   404,481   184,058   216,090   Weather MWh Adjustment   Workpaper 11 Pg 1   1,756,476   1,272,028   1,046,809   Remove Impact of SC DERP Net Metered MWh   Workpaper 11 Pg 1   1,756,476   1,272,028   1,046,809   Remove Impact of SC DERP Net Metered MWh   Workpaper 7a   150,334   Total Normalized MWh Sales at Meter   Sum   88,668,015   58,985,766   22,807,302   Total Normalized MWh Sales at Generation   Workpaper 7a   93,709,236   62,520,389   24,131,647   Test Period Fuel and Fuel Related Revenue *   \$2,052,616,593   1,158,026,193   Test Period Fuel and Fuel Related Expense *   \$2,055,925,006   \$1,373,682,811   Test Period Unadjusted (Over)/Under Recovery   \$3,308,413   \$215,656,620   \$1,373,682,811   \$1,580,663,933   \$	Exhibit 6 Schedule 1 (Line 4) and   Reference   Exhibit 6 Schedule 1 (Line 4) and   Residential   Residential

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.

Clark Exhibit 5

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Nuclear Capacity Ratings
Test Period Ended December 31, 2023
Billing Period Sept 2024 through Aug 2025
Docket E-7, Sub 1304

	Rate Case		
	Docket E-7, Sub	Fuel Docket E-7,	<b>Proposed Capacity</b>
Unit	1276	Sub 1282	Rating MW
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	1,160.0	1,160.0	1,160.0
Catawba Unit 2	1,150.1	1,150.1	1,150.1
Total Company	7,179.7	7,179.7	7,179.7

**DECEMBER 2023 MONTHLY FUEL FILING** 

## Clark Exhibit 6 Schedule 1

### DUKE ENERGY CAROLINAS SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1286

Line <u>No.</u>		 Dec 2023	12	Months Ended Dec 2023
1	Fuel and fuel-related costs	\$ 186,262,825	\$	2,061,091,081
	MWH sales:			
2	Total system sales	7,615,641		87,788,693
3	Less intersystem sales	 172,087		1,431,969
4	Total sales less intersystem sales	 7,443,554		86,356,724
5	Total fuel and fuel-related costs (¢/KWH)			
	(line 1/line 4)	 2.5023		2.3867
6	Current fuel and fuel-related cost component (¢/KWH)	 2.3511		
	(per Schedule 4, Line 7a Total)			
	Generation Mix (MWH):			
	Fossil (by primary fuel type):			
7	Coal	1,389,854		9,078,965
8	Fuel Oil	1,754		15,482
9	Natural Gas - Combined Cycle	1,177,078		13,475,644
10	Natural Gas - Combined Heat and Power	10,026		108,527
11	Natural Gas - Combustion Turbine	14,722		855,196
12	Natural Gas - Steam	703,590		11,625,388
13	Biogas	 593		14,577
14	Total fossil	3,297,617		35,173,779
15	Nuclear 100%	5,469,952		59,480,629
16	Hydro - Conventional	122,764		1,601,256
17	Hydro - Pumped storage	 (67,518)		(683,260)
18	Total hydro	55,246		917,996
19	Solar Distributed Generation	19,907		326,179
20	Total MWH generation	8,842,722		95,898,583
21	Less joint owners' portion - Nuclear	1,412,832		15,476,926
22	Less joint owners' portion - Combined Cycle	68,062		756,644
23	Adjusted total MWH generation	 7,361,828		79,665,013

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

## Clark Exhibit 6 Schedule 2

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

Docket No. E-7, Sub 1286

Fuel and fuel-related costs:	Dec 2023	12 Months Ended Dec 2023
0501110 coal consumed - steam	\$ 64,204,474	\$ 402,470,111
0501310 fuel oil consumed - steam	249,296	1,682,292
0501330 fuel oil light-off - steam		1,153,853
Total Steam Generation - Account 501	64,453,770	405,306,256
Nuclear Generation - Account 518		
0518100 burnup of owned fuel	20,904,329	238,755,271
Other Generation - Account 547		
0547100, 0547124 - natural gas consumed - Combustion Turbine	1,036,895	44,738,939
0547100 - Combustion Turbine - credit for inefficient fuel cost	-	(21,987)
0547100 natural gas consumed - Steam	39,534,000	591,311,676
0547101 natural gas consumed - Combined Cycle	44,295,041	447,172,537
0547100 natural gas consumed - Combined Heat and Power	722,824	7,207,756
0547106 biogas consumed - Combined Cycle	38,294	782,075
0547200 fuel oil consumed - Combustion Turbine	365,355	1,901,237
Total Other Generation - Account 547	85,992,409	1,093,092,233
Reagents		
Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents)	1,621,249	18,052,781
Total Reagents	1,621,249	18,052,781
By-products		
Net proceeds from sale of by-products	1,023,481	2,891,104
Total By-products	1,023,481	2,891,104
Total Fossil and Nuclear Fuel Expenses		
Included in Base Fuel Component	173,995,238	1,758,097,645
Purchased Power and Net Interchange - Account 555		
Capacity component of purchased power (economic)	-	-
Capacity component of purchased power (renewables)	541,362	15,808,462
Capacity component of purchased power (PURPA)	350,819	9,544,414
Fuel and fuel-related component of purchased power	17,030,821	320,483,742
Total Purchased Power and Net Interchange - Account 555	17,923,002	345,836,618
Less:		
Fuel and fuel-related costs recovered through intersystem sales	5,515,413	41,383,538
Fuel in loss compensation	130,913	1,170,607
Solar Integration Charge	(174)	(3,523)
Lincoln CT marginal fuel revenue	8,664	260,460
Miscellaneous Fees Collected	600	32,100
Total Fuel Credits - Accounts 447 /456	5,655,415	42,843,182
Total Fuel and Fuel-related Costs	\$ 186,262,825	\$ 2,061,091,081

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

Report reflects net ownership costs of jointly owned facilities.

<sup>\*</sup>These amounts are based on estimates and will be considered final during the next Annual Fuel proceeding.

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

Purchased Power	Total		Capacity						
Economic	\$		\$	mWh	Fuel \$	Fuel-related \$		Not Fuel \$ Not Fuel-related \$	
Associated Electric Cooperative, Inc.					(3.245)	3.245			
Associated Electric Cooperative, Inc. Carolina Power Partners, LLC	\$ 167,280		-	4,080 \$	(3,245) 44,446				
Constellation	\$ 107,200			4,000 \$					
			-	4.575	(35,149)	35,149			
Cube Yadkin Generation LLC	23,775		-	1,575	8,811	14,964			
DE Progress - Native Load Transfer	8,329,362		-	415,912	7,682,911	616,245	\$	30,205	
DE Progress - Native Load Transfer Benefit	1,080,684		-	-	1,080,684	-			
DE Progress - Fees	(1,710)		-	-	-	(1,710)			
Haywood Electric - Economic	21,702		19,590	51	(2,837)	4,949			
GE/KU					(9,215)	9.215			
Macquarie Energy, LLC	1,171,300		-	23,527	597,984	573,316			
	1,171,300			23,321		163			
Midwest Independent System Operator	-		•	-	(163)	9 969			
Morgan Stanley Capital Group			-		(9,969)	0,000			
NCEMC - Economic	1,300		-	84	(6,454)	7,754			
NCMPA - Economic	-		-	-	(109,309)	109,309			
NCMPA Instantaneous - Economic	1,023,034		-	40,454	598,475	424,559			
Oglethorpe Power	3,214		-	245	125	3,089			
Piedmont Municipal Power Agency	412,504			18,141	251,627	160,877			
PJM Interconnection, LLC.	5,606				(39,774)	45,380			
South Carolina Electric & Gas Company / Dominic			-	_	(481)	481			
				400					
Southern Company Services, Inc.	20,258		-	403	(15,461)	35,719			
Southern Company Services, Inc T			-		(14)	14			
Гатра Electric Company	19,818		-	990	3,295	16,524			
Tennesse Valley Authority	204,013		-	7,830	(77,940)	281,954			
Tennessee Valley Authority - T	_		-	-	(35)	35			
The Energy Authority	10,225			320	3,565	6,660			
Town of Forest City	20.417		20.417						
Town or r orest only	\$ 12,512,783	\$	40,007	513,612 \$	9,961,878	\$ 2,480,693	\$	30,20	
						, , , , , , , , , , , , , , , , , , , ,			
Renewable Energy									
NC Renewable Energy	\$ 3.828.970	\$	525.161	70.698 \$		\$ 3,303,809			
SC DERP - Purchased Power	260,474		16,201	4,332		169,028		75,244	
SC DERP - Net Metering Excess Generation	368		-	13		100,020		368	
			•			40.007			
SC Act 62 Net Metering Excess Generation	14,949			570		13,237		1,712	
	\$ 4,104,761	\$	541,362	75,613 \$	-	\$ 3,486,075	\$	77,324	
UDS00 DUDD A Download									
HB589 PURPA Purchases									
NC CPRE - Purchased Power	\$ 841,334		-	23,562				841,334	
NC Other Qualifying Facilities	\$ 2,707,007		350,819	50,853		2,281,872		74,316	
	\$ 3,548,341	\$	350,819	74,415 \$	-	\$ 2,281,872	\$	915,650	
Non-dispatchable / Other									
Hon-dispatchable / Other		-							
Blue Ridge Electric Membership Corp.	1,125,993	\$	682,856	24,738	(62,381)			505,519	
Carolina Power Partners, LLC					(166,441)			166,44	
Constellation					(70,369)			70,369	
Haywood Electric	122,727		72,222	2,350	(6,666)			57,17	
			12,222						
Macquarie Energy, LLC	44,800			800	(1,100,336)			1,145,13	
NCEMC - Other	3,305		3,305	-	(133,902)			133,902	
NCMPA	-			-	(79,819)			79,819	
Piedmont Electric Membership Corp.	527,997		317,381	11,904	(26,581)			237,197	
PJM Interconnection, LLC - Other			-		(13,988)			13,988	
Southern Company Services, Inc.	_				(6,442)			6,442	
Fennesse Valley Authority	_				(27,435)			27,43	
Generation Imbalance	157,187		-	4.726	74,136			83,05	
			•						
Energy Imbalance - Purchases	24,704		-	(13,460)	14,401			10,30	
Energy Imbalance - Sales	(471,761)		-		(379,541)			(92,220	
Other Purchases	398		<u> </u>	16	-			398	
	\$ 1,535,351	\$	1,075,765	31,074 \$	(1,985,364)	\$ -	\$	2,444,950	
Tatal Baracha 17		_	0.007.5==		7.0===:			0.455.45	
Total Purchased Power	\$ 21,701,236	\$	2,007,953	694,714 \$	7,976,514	\$ 8,248,640	\$	3,468,129	
nterchanges In									
Other Catawba Joint Owners	7,324,397		-	707,910	4,139,155			3,185,243	
NS Lee Joint Owner	1,068,833	_		30,141	946,126			122,707	
Fotal Interchanges In	8,393,230	-		738,051	5,085,281			3,307,950	
	-		_						
nterchanges Out									
Other Catawba Joint Owners	(7,184,252)		(134,209)	(691,654)	(4,044,098)			(3,005,944	
Catawba- Net Negative Generation									
VS Lee Joint Owner	(270,480)			(7,626)	(235,516)			(34,96	
Total Interchanges Out	(7,454,732)	-	(134,209)	(699,280)	(4,279,614)	-		(3,040,90	
	(1,707,132)	-	(101,200)	(333,200)	(1,210,014)			(0,040,300	
Net Purchases and Interchange Power	\$ 22,639,734	\$	1,873,744	733,485 \$	8,782,181	\$ 8,248,640	s	3,735,17	
a. anases and interchange Fower	¥ £2,000,734	Ψ	.,070,744	700,400 \$	0,702,101	÷ 0,240,040	*	5,755,17	

DEC 2023

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

CPRE purchased power amounts are recovered through the CPRE Rider.

Not Fuel \$/Not Fuel-related \$" amounts are based on estimates and are subject to change

Clark Exhibit 6 Schedule 3 - Sales Page 2 of 4

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

	Total	Capacity	Non-capacity					
Sales	\$	\$	mWh	Fuel \$	Non-fuel \$			
Market Based:								
Associated Electric Cooperative, Inc.	757	-	27	757	-			
Macquarie Energy, LLC	304,600	-	9,800	227,648	76,952			
Municipal Electric Authority of Georgia	(380)	-	-	-	(380)			
NCMPA	89,278	87,500	56	4,802	(3,024)			
Oglethorpe Power Corporation	15,419	-	518	15,419	0			
PJM Interconnection, LLC.	(3,243)	-	-	-	(3,243)			
SC Electric & Gas / Dominion Energy	9,895	-	274	7,300	2,596			
South Carolina Electric & Gas - T	(110)	-	-	-	(110)			
Southern Company	27,148	-	1,615	34,547	(7,399)			
Southern Company Services, Inc T	(216)	-	-	-	(216)			
Tampa Electric Company	422	-	21	422	-			
Tennessee Valley Authority	5,009	-	234	5,042	(33)			
The Energy Authority	136,317	-	5,447	135,638	679			
Other:								
DE Progress - Native Load Transfer Benefit	708,962	-	-	708,962	-			
DE Progress - Native Load Transfer	4,792,684	-	152,885	4,348,433	444,250			
Generation Imbalance	15,155	-	1,210	26,443	(11,288)			
BPM Transmission	(48,492)	-	-	-	(48,492)			
Total Intersystem Sales	\$ 6,053,205	\$ 87,500	172,087 \$	5,515,413	\$ 450,292			

Purchased Power		Total		Capacity	Non-capacity			v				
Economic		\$		\$	mWh		Fuel \$		Fuel-related \$		Not Fuel \$ t Fuel-related \$	
				<del></del>								
Associated Electric Cooperative, Inc. Carolina Power Partners, LLC	\$	42,470 1,279,350		-	1,444 36,626	s	32,855 989,705	s	9,615 289,645			
Constellation	φ	460.069			11,537	٠	355,909	٠	104,160			
Cube Yadkin Generation LLC		149,187			9,915		115,411		33,776			
DE Progress - Native Load Transfer		149,596,180		-	7,291,156		132,877,311		12,641,863	\$	4,077,006	
DE Progress - Native Load Transfer Benefit		27,303,379		-	-		27,303,379		-			
DE Progress - Fees		3,678		-	-		-		3,678			
Haywood Electric - Economic		367,676		258,772	2,519		84,249		24,655			
LGE/KU Macquarie Energy, LLC		120,619 5,204,458		-	2,995 125,892		93,311 4,026,169		27,308 1,178,289			
Midwest Independent System Operator		2.134			125,092		1,651		1,170,209			
Morgan Stanley Capital Group		130.482		-	3.786		100.941		29.541			
NCEMC		98,942			4,817		76,542		22,400			
NCMPA		1,430,740		-	49,360		1,106,820		323,920			
NCMPA Load Following Economic		9,082,211		-	462,545		5,139,442		3,942,769			
Oglethorpe Power		34,124		-	2,097		26,398		7,726			
Piedmont Municipal Power Agency		4,171,619		-	189,815		2,341,457		1,830,162			
PJM Interconnection, LLC. South Carolina Electric & Gas Company / Dominion Energy		582,973 6,291		-	22,586 217		450,988 4,860		131,985 1,430			
Southern Company Services, Inc.		427,750			15,730		330,907		96,843			
Southern Company Services, Inc T		177		-	10,700		137		40			
Tampa Electric Company		177,367		-	7,635		137,211		40,156			
Tennesse Valley Authority		3,289,947		-	112,737		2,545,103		744,844			
Tennessee Valley Authority - T		453		-	-		351		103			
The Energy Authority		67,094		-	2,327		51,904		15,190			
Town of Forest City		245,000	_	245,000				_				
	\$	204,274,369	•	503,772	8,355,736	\$	178,193,010	Þ	21,500,581	<b>&gt;</b>	4,077,006	
Renewable Energy	_											
NC Renewable Energy	\$	74,288,807	\$	15,540,372	1,216,336	\$	-	\$	58,748,435	\$	-	
SC DERP - Purchased Power		4,081,315		268,091	70,578		-		2,760,721		1,052,503	
SC DERP - Net Metering Excess Generation		84,303		-	3,122		-				84,303	
SC Act 62 Net Metering Excess Generation	\$	132,031 78,586,456	-	15,808,463	5,012 1,295,047	•		•	118,936 <b>61,628,091</b>	•	13,096 <b>1,149,901</b>	
	•	70,500,450	•	15,000,403	1,295,047	ð		ð	61,626,091	<u> </u>	1,149,901	
HB589 PURPA Purchases  NC CPRE - Purchased Power		(20,832,293)	\$		466,282					\$	(20,832,293)	
NC Other Qualifying Facilities	Ψ	47,359,889	•	9,544,415	819,162			s	36.845.496	•	969.978	
, ,	\$	26,527,596	\$	9,544,415	1,285,444	\$	-	\$	36,845,496	\$	(19,862,315)	
Non-dispatchable / Other												
Blue Ridge Electric Membership Corp.		13,625,978		7,879,269	294,688		4,445,654				1,301,055	
Carolina Power Partners, LLC		2,178,541			35.939		1.685.319				493,222	
Constellation (Reliability)		921,065		-	14,045		712,536				208,529	
DE Progress - As Available Capacity		25,969		25,969	-		-				-	
Haywood Electric		1,644,562		995,376	28,588		502,210				146,976	
Macquarie Energy, LLC		14,900,736		-	210,470		11,527,209				3,373,527	
NCEMC - Other		1,794,673		39,671	24,285		1,358,184				396,818	
NCMPA - Reliability		1,044,750		-	16,425		808,219				236,531	
Piedmont Electric Membership Corp.		6,532,466		3,841,310	139,944		2,081,878				609,278	
PJM Interconnection, LLC - Other Southern Company Services, Inc.		183,095 84,320		-	5,843 1,240		141,642 65,230				41,453 19,090	
Tennesse Valley Authority		359,095		-	9,098		277,796				81,299	
Generation Imbalance		1,069,991			50.931		139.397				930.594	
Energy Imbalance - Purchases		54,937			(147,715)		55,654				(717)	
Energy Imbalance - Sales		(2,576,011)					(2,964,653)				388,642	
Other Purchases		7,585		-	278		-				7,585	
	\$	41,851,752	\$	12,781,595	684,059	\$	20,836,275	\$	-	\$	8,233,881	
Total Purchased Power	\$	351,240,173	\$	38,638,245	11,620,286	\$	199,029,285	\$	119,974,168	\$	(6,401,527)	
											-	
Interchanges In Other Catawba Joint Owners		77,065,086			7,766,017		43,760,368				33,304,718	
WS Lee Joint Owner	_	15,234,963	_		446,372		13,415,999				1,818,964	
Total Interchanges In		92,300,049	_	-	8,212,388	-	57,176,366		-	_	35,123,682	
Interchanges Out Other Catawba Joint Owners		(74 500 000)		(1,580,207)	(7,088,258)		(40,585,344)				(29,362,469)	
Other Catawba Joint Owners Catawba- Net Negative Generation		(71,528,020) (146,879)		(1,580,207)	(7,088,258)		(40,585,344)				(29,362,469)	
WS Lee Joint Owner		(146,879) (16,671,042)			(7,910)		(117,097)				(29,782)	
Total Interchanges Out		(88,345,941)	-	(1,580,207)	(7.462.574)		(55.696.081)				(31.069.653)	
-			_				(,,,	_		_	( ) , , ,	
Net Purchases and Interchange Power	\$	355,194,281	\$	37,058,038	12,370,100	\$	200,509,570	\$	119,974,168	\$	(2,347,498)	

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

CPRE purchased power amounts are recovered through the CPRE Rider.

Not Fuel \$/Not Fuel-related \$" amounts are based on estimates and are subject to change

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

#### Twelve Months Ended December 2023

		Total		acity	Non-capacity				
Sales		\$		\$	mWh	Fuel \$		Non-fuel \$	
Utilities:									
DE Progress - Emergency	\$	154,037		-	5,320	\$ 134,480	) \$	19,557	
SC Public Service Authority - Emergency		93,804		-	2,400	82,892	<u> </u>	10,912	
SC Electric & Gas / Dominion Energy - Emergency		1,671,595		-	6,947	(165,700	))	1,837,295	
Tennessee Valley Authority - Emergency		4,871,425		-	980	111,462	2	4,759,963	
Market Based:									
Associated Electric Cooperative, Inc.		68,864		-	2,999	59,10		9,762	
Carolina Power Partners, LLC		25,920		-	810	20,265	5	5,655	
Central Electric Power Cooperative, Inc.		5,318,929		5,221,200	3,420	88,426	6	9,303	
Constellation Power Sources		1,120		-	40	1,027	,	93	
Georgia Transmission Corporation		(35)		-	-			(35)	
LGE/KU		71,275		-	4,565	69,035	5	2,240	
Macquarie Energy, LLC		5,781,900		-	157,425	3,918,649	)	1,863,251	
Midwest Independent System Operator		(58)		-	-			(58)	
Municipal Electric Authority of Georgia		(4,931)		_	_			(4,931)	
NCEMC		28,160		-	640	23,373	3	4,787	
NCMPA		1,227,277		1,050,000	5,163	189,008	3	(11,731)	
Oglethorpe Power Corporation		485,751		-	11,420	487,014	ļ	(1,263)	
PJM Interconnection, LLC.		645,915		-	15,975	394,705	5	251,210 <sup>°</sup>	
SC Electric & Gas / Dominion Energy		1,874,175		-	46,481	1,159,658	3	714,518	
South Carolina Electric & Gas - T		(2,953)		-	-			(2,953)	
SC Public Service Authority		(2,533)		-	-			(2,533)	
South Carolina Public Service Authority - T		(1,577)		-	-		-	(1,577)	
Southern Company		2,143,016		-	73,679	2,008,733	3	134,283	
Southern Company Services, Inc T		(2,905)		-	-			(2,905)	
Tampa Electric Company		4,245		_	182	4,245	5	` -	
Tennesse Valley Authority		430,649		_	17,066	411,293	3	19,356	
Tennessee Valley Authority - T		(5,158)		_	· -			(5,158)	
The Energy Authority		1,983,859		-	76,873	1,807,753	3	176,106	
Other:									
DE Progress - Native Load Transfer Benefit		3,871,518		-	-	3,871,518	3	-	
DE Progress - Native Load Transfer		29,817,634		6,583	980,018	26,604,734		3,206,318	
Generation Imbalance		(414,064)		· -	19,566	101,867		(515,931)	
BPM Transmission		(497,926)		-	-	- 1,		(497,926)	
Total Intersystem Sales	\$	59,638,929	\$	6,277,783	1,431,969	\$ 41,383,538	3 \$	11,977,608	

<sup>\*</sup> Sales for resale other than native load priority.

#### Clark Exhibit 6

#### Duke Energy Carolinas (Over) / Under Recovery of Fuel Costs December 2023

Line No.			Residential	Commercial	Industrial	Total
1	Actual System kWh sales	Input				7,443,553,219
2	DERP Net Metered kWh generation	Input				11,234,029
3	Adjusted System kWh sales	L1 + L2				7,454,787,248
4	N.C. Retail kWh sales	Input	1,934,641,331	1,988,005,400	848,528,620	4,771,175,352
5	NC kWh sales % of actual system kWh sales	L4 T / L1				64.10%
6	NC kWh sales % of adjusted system kWh sales	L4 T / L3				64.00%
7	Approved fuel and fuel related rates (¢/kWh)					
	7a Billed rates by class (¢/kWh)	L7g	2.6287	2.2596	1.9328	2.3511
	7b Billed fuel expense	L7a * L4 / 100	\$50,855,917	\$44,920,970	\$16,400,361	\$112,177,248
	Rate changes:					
	7c New approved rates	Input	2.6287	2.2596	1.9328	
	7d Ratio of days to rate	Input	100.00%	100.00%	100.00%	
	7e Prior approved rates	Input	2.0003	1.8217	1.8396	
	7f Ratio of days to rate	Input	0.00%	0.00%	0.00%	
	7g Total prorated ¢/KWH	(L7c * L7d) + (L7e * L7f)	2.6287	2.2596	1.9328	
8	Incurred base fuel and fuel related (¢/kWh) (less renewable purchased power capacity)  Allocation changes:					
	8a New approved Docket E-7, Sub 1282 allocation factor	Input	43.43%	39.90%	16.67%	
	8b System incurred expense	Input				\$185,647,066
	8c Incurred base fuel and fuel related expense	L8b * L6 * 8a	\$51,601,723	\$47,411,616	\$19,803,561	\$118,816,899
	8d Incurred base fuel rates by class (¢/kWh)	L8c / L4 * 100	2.6673	2.3849	2.3339	2.4903
9	Incurred renewable purchased power capacity rates (¢/kWh)					
	9a NC retail production plant %	Input				67.59%
	9b Production plant allocation factors	Input	46.31%	37.95%	15.74%	100.00%
	9c System incurred expense	Input				\$892,181
	9d Incurred renewable capacity expense	L9a * L9b * L9c	\$279,244	\$228,809	\$94,937	\$602,990
	9e Incurred renewable capacity rates by class (¢/kWh)	((L9a * L9c) * L9b) / L4 * 100	0.0144	0.0115	0.0112	0.0126
10	Total incurred rates by class (¢/kWh)	L8d + 9e	2.6817	2.3964	2.3451	2.5029
11	Difference in ¢/kWh (incurred - billed)	L10 - L7a	0.0530	0.1368	0.4123	0.1518
12	(Over) / under recovery [See footnote]	(L4 * L11) / 100	\$1,025,051	\$2,719,455	\$3,498,136	\$7,242,642
13	Prior period adjustments	Input	0	0	0	0
14	Total (over) / under recovery	L12 + L13	\$1,025,051	\$2,719,455	\$3,498,136	\$7,242,642

\$186,539,247

\$186,262,825

276,422

15 Total system incurred expense

16 Less: Jurisdictional allocation adjustment(s)

17 Total Fuel and Fuel-related Costs per Schedule 2

L8f + L9c Input L15 + L16

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

		(Over) / Under Recovery						
	Year 2023	Total To Date	Residential	Commercial	Industrial	Total Company		
	January	\$79,470,094	\$26,474,056	\$32,553,429	\$20,442,609	\$79,470,094		
	February	\$104,784,874	\$9,622,919	\$9,925,065	\$5,766,796	25,314,780		
	March	\$119,953,642	7,967,786	4,239,231	2,961,751	15,168,768		
	April	\$108,592,887	(718,502)	(7,455,265)	(3,186,988)	(11,360,755)		
	May	\$114,013,821	7,425,845	(1,224,776)	(780,135)	5,420,934		
_/1	June	\$125,047,256	9,295,437	387,410	1,350,588	11,033,435		
	July	\$172,652,635	20,000,533	16,198,827	11,406,019	47,605,379		
	August	\$207,414,726	14,141,807	11,419,084	9,201,200	34,762,091		
_/2	September	\$200,851,973	(577,804)	(3,986,444)	(1,998,505)	(6,562,753)		
_/2	October	\$187,840,375	1,049,328	(9,737,062)	(4,323,864)	(13,011,598)		
	November	\$208,413,979	14,200,655	5,162,455	1,210,494	20,573,604		
	December	\$215,656,621	1,025,051	2,719,455	3,498,136	7,242,642		
		<del>-</del>	\$109,907,111	\$60,201,409	\$45,548,101	\$215,656,621		

#### Notes:

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

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

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

\_/1 Includes prior period adjustments.

Reflects a prorated rate and prorated allocation factor for periods in which the approved

\_/2 rates changed.

## DUKE ENERGY CAROLINAS FUEL AND FUEL RELATED COST REPORT DEC 2023

Clark	Exhibit 6
	Schedule 5
	Dana 1 of 2

				DEC 2023			(A)		
Description	Buck	Dan River	Lee	Clemson	Lee	Lincoln	Lincoln (Unit17)	Mill Creek	Rockingham
Description	CC	CC	CC	CHP	Steam/CT	CT	CT	CT	CT
Cost of Fuel Purchased (\$)									
Coal									
Oil Gas - CC	- \$13,980,435	-	- 		-	-	-	-	-
Gas - CC Gas - CHP	\$13,960,435	\$11,426,257	\$21,057,461	\$722,824					
Gas - CT					\$16,634	\$4,292	(\$196)	\$53,680	\$962,484
Gas - Steam Biogas		(64,563)			-				
Total	\$13,980,435	\$11,361,693	\$21,057,461	\$722,824	\$16,634	\$4,292	(\$196)	\$53,680	\$962,484
Control Fire Director of (AMPTI)									
Average Cost of Fuel Purchased (¢/MBTU)  Coal									
Oil					-	-	-	-	-
Gas - CC Gas - CHP	551.17	550.69	552.80	635.01					
Gas - CT					3,569.55	6,027.98	433.21	572.96	574.59
Gas - Steam Biogas		(1,513.08)			-				
Weighted Average	551.17	546.45	552.80	635.01	3,569.55	6,027.98	433.21	572.96	574.59
cost of Fuel Burned (\$) Coal			_		-				
Oil - CC	-	-	-						
Oil - Steam/CT Gas - CC	\$13,980,435	\$11,426,257	\$21,057,461		\$118,981	\$0	\$0	\$246,373	\$0
Gas - CHP	ψ10,300,433	ψ11,420,237	\$21,007,401	\$722,824					
Gas - CT					16,634	4,292	(196)	53,680	962,484
Gas - Steam Biogas	_	(64,563)	_		-				
Nuclear									
Total	\$13,980,435	\$11,361,693	\$21,057,461	\$722,824	\$135,616	\$4,292	(\$196)	\$300,054	\$962,484
verage Cost of Fuel Burned (¢/MBTU)									
Coal					-				
Oil - CC Oil - Steam/CT					1,789.73		_	2,178.95	_
Gas - CC	551.17	550.69	552.80		1,700.70			2,170.00	
Gas - CHP				635.01	0.500.55	0.007.00	400.04	570.00	574.50
Gas - CT Gas - Steam					3,569.55	6,027.98	433.21	572.96	574.59
Biogas	-	(1,513.08)	-						
Nuclear Weighted Average	551.17	546.45	552.80	635.01	1,906.32	6,027.98	433.21	1,451.22	574.59
g					-,	-,		.,	
Average Cost of Generation (¢/kWh)  Coal									
Oil - CC		-			•				
Oil - Steam/CT		-	-		-	-		46.62	-
Gas - CC Gas - CHP	3.95	3.96	3.94	7.21					
Gas - CT					-	-	-	11.13	6.16
Gas - Steam		(10.89)			-	-	-	-	-
Biogas Nuclear	-	(10.69)	-						
Weighted Average	3.95	3.93	3.94	7.21	-	-	-	29.68	6.16
Burned MBTU's									
Coal					-				
Oil - CC Oil - Steam/CT					6 6 4 9		_	44 207	
Gas - CC	2,536,490	2,074,897	3,809,258		6,648	-		11,307	-
Gas - CHP				113,828					
Gas - CT Gas - Steam					466	71	(45)	9,369	167,509
Biogas	-	4,267	-						
Nuclear Total	2,536,490	2,079,164	3,809,258	113,828	7,114	71	(45)	20,676	167,509
	2,550,450	2,073,104	3,003,230	110,020	7,114	,,	(45)	20,070	107,503
let Generation (mWh)									
Coal Oil - CC									
Oil - Steam/CT		-	-		(18)	-	-	529	-
Gas - CC Gas - CHP	354,375	288,252	534,451	10,026	-				
Gas - CT				10,020	(7)	(920)	(462)	482	15,629
Gas - Steam		500							
Biogas Nuclear 100%	-	593	-						
Hydro (Total System)									
Solar (Total System) Total	354,375	288,845	534,451	10,026	(25)	(920)	(462)	1,011	15,629
	304,010	200,040	-51,101	10,020	(23)	(020)	(402)	.,	10,020
Cost of Reagants Consumed (\$)									
Cost of Reagents Consumed (\$) Ammonia	\$19,706	\$0	\$31,463						
Limestone			•						
Sorbents Urea									
Re-emission Chemical									
Dibasic Acid									
Activated Carbon Lime (water emissions)									
Total	\$19,706	\$0	\$31,463						

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 DEC 2023

Clark Exhibit 6
Schedule 5
Page 2 of 2

Sect											
	Description	Allen	Marshall		Cliffside	Catawba	McGuire		Oconee	Current Month	Total 12 ME December 2023
Control		Steam S	Steam - Dual Fuel S	Steam - Dual Fuel	Steam - Dual Fuel	Nuclear	Nuclear		Nuclear		
C. C	ost of Fuel Purchased (\$)										
Control		\$28,236	\$12,217,542								\$443,166,95
The Color		-	-	76,938	218,631						
Dec.   Proper   Property   Proper   Property   Proper   Proper   Proper   Proper   Proper   Proper   Property	Gas - CHP										7,207,75
Page											44,716,95
Transpect Coat of Fire Processor (AMPT)  Coat			15,555,366	15,449,049	8,529,586						591,311,67
Coll		\$28,236	\$27,772,907	\$29,399,564	\$25,375,478						\$1,580,691,59
Control	versage Cost of Fuel Burehood (d/MPTII)										
Control		-	498.73	500.49	561.70					522.45	509.7
Gail - CIPP Gail -		-	-	1,860.57	1,924.05						2,393.5
Gen - CT											489.8
Gar - Shame   \$90.46   \$90.29   \$90.89   \$90.20   \$90.20   \$20.00											455.1
Weight Annabe   SSR SS   SSR SSR SSR SSR SSR SSR SSR	Gas - Steam		550.45	550.29	558.98					552.20	498.6
March   Marc			526 43	526 54	564 22						2,123.5
Second   S											
Out - Stewart T		\$0	\$15.814.799	\$28.081.001	\$20.308.674					\$64.204.474	\$402,470,11
Gear-CDC Gear-CDPC Gear-Common 15,555,366 15,446,046 8,556,568 720,044 720,045 15,446,049 8,556,568 720,044 720,045 15,046,049 8,556,568 720,044 720,045 15,046,045 10,045,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045,045 10,045,045,045 10,045,045,045 10,045,045,045 10,045,045 10,045,045 10,045,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045,045 10,045,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10,045,045 10	Oil - CC									-	-
Gair - CIP* Cear- Somewhalf		-	2,092	-	\$247,204			-			
Case - CFT											7,207,75
Biggs	Gas - CT							-		1,036,895	44,716,95
Nober			15,555,366	15,449,049	8,529,586						591,311,67
Trail						¢10 225 832	\$8.450.638		\$10.485.627		
Coal		\$0	\$31,372,257	\$43,530,050	\$29,085,463			\$0			\$1,852,247,62
Coal	0.4455 1.0										
Dil - Stemmort   1,442.88   2,2153.0   2,071.14   2,085   2,081.0   563.79   468   563.79   468   563.79   468   563.79   468   563.79   468   563.79   468   563.89   563.89   563.79   468   563.89   563.49   5		-	481.10	431.39	505.42					464.75	444.60
Gas - CC   Sector   S	Oil - CC									-	
Gas - CPT Gas - Statem		-	1,442.88	-	2,135.30			-			2,093.8
Gas - CT Gas - Sleam											578.1
Biogras								-			455.1
Nuclear Westfree 5 513 18 4672 1 5253 3 58,65 48.03 53.96 53.41 54 72.00 70.00			550.45	550.29	558.98						498.6
Weighted Average         513.18         467.21         523.53         58.65         48.03         53.39         215.47         202           Werage Cost of Generation (6AWh)         Coll         4.69         4.16         5.06         4.62         3.50         3.35         3.36         3.36         3.36         3.36         3.36         3.26         3.26         3.26         5.68         4.58         4.58         5.62						58.65	48.03		53 59		2,123.5 54.9
Coal		-	513.18	467.21	523.53			-			202.2
Coal	erage Cost of Generation (¢/kWh)										
DissamanCT	Coal	-	4.99	4.16	5.06					4.62	4.4
Gas - CIP Wolpfled Average  - 5.526			15.04		20.11					- 35.04	30.6
Gas - CT			10.04		20.11						3.4
Same   S.   Same   S.   S.   S.   S.   S.   S.   S.   S											6.6
Bogas			E 57	5.04	5.00			-			5.2 5.0
Nuclear Weighted Average			5.57	5.04	5.06						15.3
Coal	Nuclear									0.53	0.5
Coal OI - CC OI - 3,287,205 6,509,479 4,018,154 13,814,838 90,524,1 OI - CC OI - Steam/CT - 145 - 11,577 - 226,677 226,635 - CC - 11,577 - 26,675 90,696,666,635 - CHP - 11,302 - 11,302 91,302 91,303	Weighted Average		5.26	4.59	5.26	0.58	0.48		0.54	2.05	1.9
Oil - CC Oil - Steam/CT											
Oil - Steam/CT		-	3,287,205	6,509,479	4,018,154						90,524,51
Gas - CHP Gas - Steam 2,825,954 2,807,442 1,525,931 - 1,7594,430 1,956,757 1,759,227 18,586;  Biggas 1,261,6526 17,436,126 17,594,430 19,566,757 45,677,310 39,825;  Remarkston (mWh)  Coal (3,111) 316,812 674,602 401,551 7,94,430 19,566,757 84,317,265 915,661,  Oil - CC (3,111) 316,812 674,602 401,551 7,94,430 19,566,757 84,317,265 11,759,430 19,566,757 84,317,265 11,759,430 19,566,757 84,317,265 11,759,430 19,566,757 84,317,265 11,759,810 19,566,757 84,317,265 11,759,810 19,566,757 84,317,265 11,899,854 19,078,171 19,078 11,177,078 1		-	145	-	11,577			-		29,677	226,25
Gas - CT Gas - Steam											96,056,37
Cas - Steam											1,246,64
Blogas			2.825.954	2.807.442	1.525.931			-			118,586,77
Total - 6,113,304 9,316,921 5,555,662 17,436,126 17,594,430 - 19,566,757 84,317,265 915,661,  at Generation (mWh)  Coal (3,111) 316,812 674,602 401,551 1,389,854 9,078, Oil - OC	Biogas									4,267	105,07
td Generation (mWh)  Coal (3,111) 316,812 674,602 401,551 1,389,854 9,078,1 0 1 - C			6 113 304	0.316.021	5 555 662						599,090,39
Coal	Total	-	6,113,304	9,310,921	5,555,662	17,430,120	17,594,430	•	19,500,757	64,317,205	915,001,02
Oil - CC Oil - Steam/CT		(0.444)	240 040	624 600	404 554					4 200 054	0.070.00
Cil. Steam/CT		(3,111)	316,812	074,602	401,551						9,078,96
Gas - CHP Gas - Steam	Oil - Steam/CT	-	14	-	1,229			-		1,754	15,48
Gas - CT  Gas - Sleam 279,461 273,852 150,277 - 14,722 855, Gas - Sleam 279,461 273,852 150,277 - 703,900 11,625, Biogas 51,44, Nuclear 100% 15,246 19,73,852 17,749,551 1,767,184 1,953,217 5,469,952 59,480, Hydro (Total System) 55,246 1917, Solar (Total System) 19,907 326, Total (3,111) 596,287 948,454 553,057 1,749,551 1,767,184 1,953,217 8,842,723 95,888,  **Sot Reagents Consumed (\$)** Ammonia (\$1,000,000,000,000,000,000,000,000,000,0											13,475,64
Gas - Steam 279,461 273,852 150,277 703,590 11,625; Biggas 78,593 14; Span 15,625; Biggas 78,640,952 15,640,95											108,52 855 10
Biogas			279,461	273,852	150,277						11,625,38
Hydro (Total System) Solar (Total System) Total (3,111) 596,287 948,454 553,057 1,749,551 1,767,184 - 1,953,217 8,842,723 95,898,1  Set of Reagents Consumed (\$)  Armonia (\$169,474) \$76,019 (\$42,287) \$6,036,  Limestone \$0 \$254,278 409,942 860,175 \$1,524,396 10,512;  Sorberts - 104,595 - \$1,127;  Urea - 38,551 \$38,551 289,  Re-emission Chemical - 38,551 \$1,27;  Dibasic Acid - \$0 \$1,000,000,000,000,000,000,000,000,000,0										593	14,57
Solar (Total System)						1,749,551	1,767,184		1,953,217		59,480,62
Total (3,111) 596,287 948,454 553,057 1,749,551 1,767,184 - 1,953,217 8,842,723 95,898,  201 of Reagents Consumed (5)  Armonia (\$169,474) \$76,019 (\$42,287) \$6,036,  Limestone \$0 \$254,278 409,942 860,175 \$1,524,396 10,512,  Sorbents - 104,595 - \$104,595 1,127,  Urea - 38,551 289,  Re-emission Chemical											326,17
Armmonia         (\$169.474)         \$76.019         (\$42.287)         \$8,036,           Limestone         \$0         \$254.278         409.942         860.175         \$1,524.396         10,512,           Sorbents         -         104.595         -         \$104.595         1,127,           Urea         -         38.551         289,         289,           Re-emission Chemical         -         -         -         50         107,           Dibasic Acid         -         -         -         80         407, <td></td> <td>(3,111)</td> <td>596,287</td> <td>948,454</td> <td>553,057</td> <td>1,749,551</td> <td>1,767,184</td> <td>-</td> <td>1,953,217</td> <td></td> <td>95,898,58</td>		(3,111)	596,287	948,454	553,057	1,749,551	1,767,184	-	1,953,217		95,898,58
Ammonia         (\$169.474)         \$76.019         (\$42.287)         \$8,036,           Limestone         \$0         \$254.278         409,942         860,175         \$1,524,396         10,512,386           Sorbents         -         104,595         -         \$104,595         1,127,7           Urea         -         38,551         289,         289,           Re-emission Chemical         -         -         -         50         107,           Dibasic Acid         -         -         -         80         -         107,           Activated Carbon         -         -         -         -         80         93,           Lime (water emissions)         -         -         -         -         -         80         93,											
Limestone         \$0         \$254,278         409,942         860,175         \$1,524,396         10,512,396         10,512,396         10,512,396         11,27,397         11,27,397         11,27,397         11,27,397         12,27,27,397         12,27,27,397         12,27,27,397         12,27,27,397         12,27,27,397         12,27,27,27,397 <td></td> <td></td> <td></td> <td>(0400 474)</td> <td>****</td> <td></td> <td></td> <td></td> <td></td> <td>(840.007)</td> <td>** ***</td>				(0400 474)	****					(840.007)	** ***
Sorbents         - 104,595         - 1,127,           Urea         - 38,551         289,1           Re-emission Chemical		\$0	\$254 278								\$6,036,28 10,512,57
Urea     -     38,551     289,       Re-emission Chemical     -     -     -     90     107,       Dibasic Acid     -     -     90       Activated Carbon     -     -     93,       Lime (water emissions)     -     -     93,       33,     33,		φ0 -		100,012	000,175						1,127,79
Dibasic Acid         -         \$0           Activated Carbon         -         -         \$0         93;           Lime (water emissions)         -         -         -         \$0         33,	Urea	-								\$38,551	289,92
Activated Carbon     -     -     \$0     93,1       Lime (water emissions)     -     -     -     \$0     33,4		-	-	-	-						107,87
Lime (water emissions) \$0 33,		-	_								93,91
		-	-	-							33,40
		-	397,425	\$240,468	\$936,195						\$18,201,781

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 DEC 2023

-							/A\								
							(A) Lincoln					Belews		Current	Total 12 ME
Description	Buck	Dan River	Lee	Clemson	Lee	Lincoln	(Unit17)	Mill Creek	Rockingham	Allen	Marshall	Creek	Cliffside	Month	December 2023
Description	CC	CC	CC	CHP	Steam/CT	CT	CT	CT	CT	Steam		Steam - Dual Fuel	Steam - Dual Fuel	WOTH	December 2023
Coal Data:	CC	CC	CC	CHF	Steam/C1	CI	CI	CI	CI	Steam	Steam - Duai Fuel	Steam - Duai Fuei	Steam - Duai Fuei		
										60,097	864,521	4 400 200	400 544	0.504.400	2,491,097.54
Beginning balance					-							1,168,306	488,541	2,581,466	
Tons received during period										-	97,786	112,563	119,903	330,252	3,510,747.00
Inventory adjustments					-					-	-	-	-	-	(13,351.00)
Tons burned during period					-					-	130,278	255,716	159,070	545,064	3,621,838.49
Ending balance					-					60,097	832,030	1,025,153	449,375	2,366,655	2,366,654.57
MBTUs per ton burned					-					-	25.23	25.46	25.26	25.35	24.99
Cost of ending inventory (\$/ton)					-					114.33	121.39	109.81	127.67	117.39	117.39
Oil Data:															
Beginning balance			_		707,467	8,552,720	1,111,880	3,487,079	2,891,700	94,109	262,701	69,034	217,704	17,394,394	12,540,723
Gallons received during period	_	_	_		-	0,002,720	.,,	-	2,001,100		202,701	29,965	82,341	112,306	6,529,088
Miscellaneous adjustments	_	_	_		_	_	_	_		_		(17,072)	(11,448)	(28,002)	(165,806)
•	-	-	-		40.440	-			-						
Gallons burned during period		-	-		48,440	0.550.700	-	82,147		-		-	84,052	216,212	1,641,519
Ending balance	-	-	-		659,027	8,552,720	1,111,880	3,404,932	2,891,700	94,109		81,927	204,545	17,262,486	17,262,486
Cost of ending inventory (\$/gal)	-	-	-		2.46	2.46	2.62	3.00	2.81	3.08	1.98	2.83	2.94	2.64	2.64
Natural Gas Data:															
Beginning balance															
MCF received during period	2,455,721	2,004,820	3,689,236	110,224	452	69	(44)	9,084	161,965		2,736,757	2,708,335	1,476,173	15,352,791	218,715,204
MCF burned during period	2,455,721	2,004,820	3,689,236	110,224	452	69	(44)	9,084	161,965		2,736,757	2,708,335	1,476,173	15,352,791	218,715,204
Ending balance															
Biogas Data:															
Beginning balance															
MCF received during period		4,123												4,123	101,735
		4,123	-											4,123	101,735
MCF burned during period	-	4,123	-											4,123	101,735
Ending balance															
Limestone Data:															
Beginning balance										15,205	65,493	44,580	27,104	152,381	127,789
Tons received during period										-	-	-	22,884	22,884	202,879
Inventory adjustments										-	-	-	0	-	19,732
Tons consumed during period										-	5,712	9,824	12,064	27,600	202,735
Ending balance										15,205	59,781	34,756	37,924	147,666	147,666
Cost of ending inventory (\$/ton)										59.58	44.52	41.73	50.26	46.71	46.71
														Qtr Ending	Total 12 ME
														December 2023	December 2023
Ammonia Data: (B)															
Beginning balance	4,601													4,601	3,831
Tons received/adjusted during period	637													637	4,316
Inventory adjustments	196													196	196
Tons consumed during period	714													714	3,427
Ending balance	4,720													4,720	4,720
Cost of ending inventory (\$/ton)	100.83													100.83	100.83

### 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.

Clark Exhibit 6
Schedule 7

## DUKE ENERGY CAROLINAS ANALYSIS OF COAL PURCHASED DEC 2023

STATION	ТҮРЕ	QUANTITY OF TONS DELIVERED	DELIVERED COST	DELIVERED COST PER TON	
ALLEN	SPOT	-	\$ -	\$ -	
	CONTRACT FUEL MANAGEMENT AGREEMENT FIXED TRANSPORTATION / ADJUSTMENTS	-	4,820 (4,820) 28,236	-	
	TOTAL	0	28,236		
BELEWS CREEK	SPOT	<u>-</u>	-	-	
CON	CONTRACT FUEL MANAGEMENT AGREEMENT	112,563	13,866,779 (606,209)	123.19	
	FIXED TRANSPORTATION / ADJUSTMENTS	- 112 502	613,008	- 122.25	
	TOTAL	112,563	13,873,577	123.25	
CLIFFSIDE	SPOT CONTRACT	- 119,903	- 15,827,496	- 132.00	
	FUEL MANAGEMENT AGREEMENT FIXED TRANSPORTATION / ADJUSTMENTS		471,083 328,682		
	TOTAL	119,903	16,627,261	138.67	
MARSHALL	SPOT	-	-	-	
	CONTRACT FUEL MANAGEMENT AGREEMENT	97,786	11,974,515 (158,367)	122.46	
	FIXED TRANSPORTATION / ADJUSTMENTS		401,395	-	
	TOTAL	97,786	12,217,542	124.94	
ALL PLANTS	SPOT	_	-	_	
ALL I LANG	CONTRACT FUEL MANAGEMENT AGREEMENT	330,253	41,673,609 (298,313)	126.19	
	FIXED TRANSPORTATION / ADJUSTMENTS TOTAL	330,253	1,371,320 42,746,616	\$ 129.44	

## Clark Exhibit 6

Schedule 8

## DUKE ENERGY CAROLINAS ANALYSIS OF COAL QUALITY RECEIVED DEC 2023

STATION	PERCENT MOISTURE	PERCENT ASH	HEAT VALUE	PERCENT SULFUR
BELEWS CREEK	7.11	10.51	12,313	1.58
CLIFFSIDE	9.14	8.39	12,344	2.00
MARSHALL	6.28	10.26	12,526	1.61

## Clark Exhibit 6

## Schedule 9

## DUKE ENERGY CAROLINAS ANALYSIS OF OIL PURCHASED DEC 2023

		ALLEN	BELEWS CREEK		
VENDOR	Hiç	ghTowers	HighTowers		
SPOT/CONTRACT	(	Contract Contract			
SULFUR CONTENT %		-		-	
GALLONS RECEIVED		-		29,965	
TOTAL DELIVERED COST	\$	-	\$	76,938	
DELIVERED COST/GALLON	\$	-	\$	2.57	
BTU/GALLON		138,000		138,000	

	CL	IFFSIDE	MA	RSHALL
VENDOR	HighTowers		Hig	hTowers
SPOT/CONTRACT	(	Contract	Contract	
SULFUR CONTENT %		-		-
GALLONS RECEIVED		82,341		-
TOTAL DELIVERED COST	\$	218,631	\$	-
DELIVERED COST/GALLON	\$	2.66	\$	-
BTU/GALLON		138,000		138,000

December 2023
DEC NC Baseload PPPR
PAGE 1 of 21
Clark Exhibit 6,
Schedule 10

## Duke Energy Carolinas Base Load Power Plant Performance Review Plan Report Period: December 2023 - December 2023

Station	Unit	Date of Outage	Duration of Outage (Hours)	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Actions Taken
Oconee	1						
	2						
	3						
McGuire	1						
	2						
Catawba	1						
	2						

## December 2023 DEC NC Baseload PPPR PAGE 2 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **Belews Creek Station**

Unit	<b>Duration of Outage</b>	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
2	12/5/2023 5:00:00 PM To 12/11/2023 4:00:00 AM	Unsch	1050	Second superheater	Unit off with a tube leak.	
		Ruek	Coml	hined Cycle Ste	tion	

## **Buck Combined Cycle Station**

Unit	<b>Duration of Outage</b>	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
11	11/11/2023 12:11:00 AM To 12/2/2023 6:00:00 PM	Sch	1799	Other boiler instrumentation and control problems	Winterization Project	
12	11/11/2023 12:11:00 AM To 12/2/2023 6:00:00 PM	Sch	1799	Other boiler instrumentation and control problems	Winterization Project	
ST10	11/10/2023 11:43:00 PM To 12/2/2023 6:00:00 PM	Sch	7930	Controls and instrumentation	Winterization Project	

## **Clemson CHP**

Unit	<b>Duration of Outage</b>	of Outage Type of Outage		of Outage	Reason Outage Occurred	Remedial Action Taken
1	12/12/2023 7:25:00 AM To 12/12/2023 6:22:00 PM	Sch	5110	Lube oil system - general	Planned maintenance outage to address TT66B lube oil temp transmitter.	

## **Dan River Combined Cycle Station**

Unit	<b>Duration of Outage</b>	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
8	12/1/2023 12:00:00 PM To 12/8/2023 10:28:00 AM	Unsch	4260	Main stop valves	Main Steam Stop valve not opening during startup of Steam Turbine	
9	12/1/2023 12:00:00 PM To 12/8/2023 10:53:00 AM	Unsch	4260	Main stop valves	Steam Turbine Main Stop Valve would not open during startup	
ST7	11/30/2023 6:00:00 PM To 12/8/2023 12:42:00 PM	Unsch	4260	Main stop valves	Steam Turbine Main Steam Stop Valve not opening during startup	

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

**DEC NC Baseload PPPR PAGE 3 of 21** 

Clark Exhibit 6, Schedule 10

December 2023

**Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan** December 2023

## **Marshall Station**

No Outages at Baseload Units During the Month.

## **WS Lee Combined Cycle**

Unit	<b>Duration of Outage</b>	Type of Outage	Cause	of Outage	Reason Outage Occurred	Remedial Action Taken
WS Lee CC ST 10	12/9/2023 11:58:00 AM To 12/9/2023 4:29:00 PM	Sch	4293	Hydraulic system pipes and valves	Steam turbine control valve #1 servo replacement	
WS Lee CC ST 10	12/16/2023 10:04:00 AM To 12/16/2023 9:12:00 PM	Sch	4293	Hydraulic system pipes and valves	Replacement of steam turbine control valve servos	

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

## December 2023 DEC NC Baseload PPPR PAGE 4 of 21

Clark Exhibit 6, Schedule 10

## Duke Energy Carolinas Base Load Power Plant Performance Review Plan Report Period: December 2023 - December 2023

	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)	649,611	649,503	654,103	886,807	880,377	877,938	871,613
(C2) Capacity Factor (%)	103.09	102.95	102.35	102.93	102.19	101.73	101.87
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	0	0	0	0	0	0
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	0	0	0	0	0	0	584
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	0.00	0.00	0.00	0.00	0.00	0.07
(F1) Net MWH Not Gen Due to Full Forced Outages	0	0	0	0	0	0	0
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(G1) Net MWH Not Gen due to Partial Forced Outages	-19,443	-18,591	-15,007	-25,255	-18,825	-14,898	-16,597
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-3.09	-2.95	-2.35	-2.93	-2.19	-1.73	-1.94
(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	100.00	100.00	100.00	100.00	100.00	99.93
(L) Output Factor (%)	103.09	102.95	102.35	102.93	102.19	101.73	101.87
(M) Heat Rate (BTU/Net KWH)	10,045	10,040	9,969	9,921	9,991	10,015	9,916

## 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

## December 2023 DEC NC Baseload PPPR PAGE 5 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **Belews Creek Station**

	Unit 1	Unit 2
(A) MDC (mW)	1,110	1,110
(B) Period Hrs	744	744
(C) Net Generation (mWh)	527,383	421,071
(D) Capacity Factor (%)	63.86	50.99
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	390	0
(H) Scheduled Derates: percent of Period Hrs	0.05	0.00
(I) Net mWh Not Generated due to Full Forced Outages	0	145,410
(J) Forced Outages: percent of Period Hrs	0.00	17.61
(K) Net mWh Not Generated due to Partial Forced Outages	49,290	8,190
(L) Forced Derates: percent of Period Hrs	5.97	0.99
(M) Net mWh Not Generated due to Economic Dispatch	248,778	251,169
(N) Economic Dispatch: percent of Period Hrs	30.12	30.41
(O) Net mWh Possible in Period	825,840	825,840
(P) Equivalent Availability (%)	93.98	81.40
(Q) Output Factor (%)	63.86	61.88
(R) Heat Rate (BTU/NkWh)	8,679	10,634

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 6 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **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)	98,114	118,300	137,961	354,375
(D) Capacity Factor (%)	64.02	77.19	60.60	66.34
(E) Net mWh Not Generated due to Full Scheduled Outages	8,652	8,652	12,852	30,156
(F) Scheduled Outages: percent of Period Hrs	5.65	5.65	5.65	5.65
(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	46,498	26,312	76,851	149,661
(N) Economic Dispatch: percent of Period Hrs	30.34	17.17	33.76	28.02
(O) Net mWh Possible in Period	153,264	153,264	227,664	534,192
(P) Equivalent Availability (%)	94.35	94.35	94.35	94.35
(Q) Output Factor (%)	83.49	83.60	65.75	75.58
(R) Heat Rate (BTU/NkWh)	10,067	10,024	1,587	6,751

- 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.

## December 2023

**Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan** December 2023

**DEC NC Baseload PPPR PAGE 7 of 21** Clark Exhibit 6, Schedule 10

## **Clemson CHP**

	Clemson CHP1
(A) MDC (mW)	16
(B) Period Hrs	744
(C) Net Generation (mWh)	10,026
(D) Capacity Factor (%)	86.94
(E) Net mWh Not Generated due to Full Scheduled Outages	170
(F) Scheduled Outages: percent of Period Hrs	1.47
(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	1,336
(N) Economic Dispatch: percent of Period Hrs	11.59
(O) Net mWh Possible in Period	11,532
(P) Equivalent Availability (%)	98.53
(Q) Output Factor (%)	88.24
(R) Heat Rate (BTU/NkWh)	11,357

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 8 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **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)	77,382	99,043	112,420	288,845
(D) Capacity Factor (%)	50.49	64.62	49.06	53.92
(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	425	425	756	1,607
(H) Scheduled Derates: percent of Period Hrs	0.28	0.28	0.33	0.30
(I) Net mWh Not Generated due to Full Forced Outages	34,292	34,378	55,656	124,326
(J) Forced Outages: percent of Period Hrs	22.37	22.43	24.29	23.21
(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	41,164	19,418	60,320	120,902
(N) Economic Dispatch: percent of Period Hrs	26.86	12.67	26.32	22.57
(O) Net mWh Possible in Period	153,264	153,264	229,152	535,680
(P) Equivalent Availability (%)	77.35	77.29	75.38	76.49
(Q) Output Factor (%)	80.84	83.31	64.80	74.42
(R) Heat Rate (BTU/NkWh)	10,179	10,029	1,560	6,773

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 9 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	744	744
(C) Net Generation (mWh)	259,401	261,354
(D) Capacity Factor (%)	52.99	53.22
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	6,888	6,930
(H) Scheduled Derates: percent of Period Hrs	1.41	1.41
(I) Net mWh Not Generated due to Full Forced Outages	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	223,263	222,756
(N) Economic Dispatch: percent of Period Hrs	45.61	45.36
(O) Net mWh Possible in Period	489,552	491,040
(P) Equivalent Availability (%)	98.59	98.59
(Q) Output Factor (%)	52.99	53.22
(R) Heat Rate (BTU/NkWh)	10,512	10,412

- 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.

## **DEC NC Baseload PPPR Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan** December 2023

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December 2023

## **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)	160,102	169,267	205,082	534,451
(D) Capacity Factor (%)	86.77	91.74	88.07	88.79
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	4,898	4,898
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	2.10	0.81
(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	24,410	15,245	22,892	62,547
(N) Economic Dispatch: percent of Period Hrs	13.23	8.26	9.83	10.39
(O) Net mWh Possible in Period	184,512	184,512	232,872	601,896
(P) Equivalent Availability (%)	100.00	100.00	97.90	99.19
(Q) Output Factor (%)	86.77	91.74	89.96	89.52
(R) Heat Rate (BTU/NkWh)	10,897	10,337	1,812	7,234

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

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## December 2023 DEC NC Baseload PPPR

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## Duke Energy Carolinas Intermediate Power Plant Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **Cliffside Station**

## Cliffside 6

(A)	MDC (mW)	849
<b>(B)</b>	Period Hrs	744
<b>(C)</b>	Net Generation (mWh)	425,013
<b>(D</b> )	Net mWh Possible in Period	631,656
<b>(E)</b>	Equivalent Availability (%)	99.72
<b>(F)</b>	Output Factor (%)	67.29
( <b>G</b> )	Capacity Factor (%)	67.29

## Notes:

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

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## December 2023 DEC NC Baseload PPPR PAGE 12 of 21

## Duke Energy Carolinas Peaking Power Plant Performance Review Plan December 2023

Clark Exhibit 6, Schedule 10

## **Cliffside Station**

		Unit 5
( <b>A</b> )	MDC (mW)	546
<b>(B)</b>	Period Hrs	744
( <b>C</b> )	Net Generation (mWh)	128,044
<b>(D)</b>	Net mWh Possible in Period	406,224
<b>(E)</b>	<b>Equivalent Availability (%)</b>	98.72
<b>(F)</b>	Output Factor (%)	56.01
( <b>G</b> )	Capacity Factor (%)	31.52

## Notes:

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

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## Duke Energy Carolinas Base Load Power Plant Performance Review Plan Report Period: January 2023 - December 2023

	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)	7,589,742	7,068,006	7,588,987	9,202,099	8,866,273	8,988,094	10,177,428
(C2) Capacity Factor (%)	102.29	95.15	100.85	90.71	87.40	88.45	101.03
(D1) Net MWH Not Gen. Due to Full Schedule Outages	0	509,083	0	1,082,035	1,221,690	1,089,994	0
(D2) % Net MWH Not Gen. Due to Full Schedule Outages	0.00	6.85	0.00	10.67	12.04	10.73	0.00
(E1) Net MWH Not Gen. Due to Partial Scheduled Outages	0	6,135	0	41,192	23,652	111,819	897
(E2) % Net MWH Not Gen. Due to Partial Scheduled Outages	0.00	0.08	0.00	0.41	0.23	1.10	0.01
(F1) Net MWH Not Gen Due to Full Forced Outages	0	0	43,480	0	35,241	0	0
(F2) % Net MWH Not Gen Due to Full Forced Outages	0.00	0.00	0.58	0.00	0.35	0.00	0.00
(G1) Net MWH Not Gen due to Partial Forced Outages	-170,022	-154,744	-107,627	-181,246	-2,776	-28,307	-104,325
(G2) % Net MWH Not Gen Due to Partial Forced Outages	-2.29	-2.08	-1.43	-1.79	-0.02	-0.28	-1.04
(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 (%)	99.89	92.96	99.29	88.98	86.45	88.00	99.99
(L) Output Factor (%)	102.29	102.15	101.44	101.55	99.77	99.08	101.03
(M) Heat Rate (BTU/Net KWH)	10,105	10,100	10,046	10,017	10,108	10,135	10,003

## 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

December 2023
DEC NC Baseload PPPR
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Clark Exhibit 6, Schedule 10

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan

January, 2023 through December, 2023 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)	3,849,391	4,638,550
(D) Capacity Factor (%)	39.59	47.70
(E) Net mWh Not Generated due to	2,342,655	1,878,120
Full Scheduled Outages	2,342,033	1,070,120
(F) Scheduled Outages: percent of	24.09	19.32
Period Hrs		
(G) Net mWh Not Generated due to Partial Scheduled Outages	30,436	13,531
(H) Scheduled Derates: percent of		
Period Hrs	0.31	0.14
(I) Net mWh Not Generated due to	412,365	159,840
Full Forced Outages	412,303	137,040
(J) Forced Outages: percent	4.24	1.64
of Period Hrs		
(K) Net mWh Not Generated due to Partial Forced Outages	158,675	88,989
(L) Forced Derates: percent of	1.62	0.00
Period Hrs	1.63	0.92
(M) Net mWh Not Generated due to	2,930,078	2,944,570
<b>Economic Dispatch</b>	2,930,078	2,944,370
(N) Economic Dispatch: percent	30.13	30.28
of Period Hrs	0.722.600	0.722.600
(O) Net mWh Possible in Period	9,723,600	9,723,600
(P) Equivalent Availability (%)	69.72	77.99
(Q) Output Factor (%)	56.11	60.35
(R) Heat Rate (BTU/NkWh)	9,140	9,760

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 15 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan

Clark Exhibit 6, Schedule 10

January, 2023 through December, 2023 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)	1,111,803	1,126,791	1,581,365	3,819,959
(D) Capacity Factor (%)	61.61	62.44	58.99	60.73
(E) Net mWh Not Generated due to	341,385	342,135	492,183	1,175,703
Full Scheduled Outages	- /	- ,	, , , , ,	,,
(F) Scheduled Outages: percent of	18.92	18.96	18.36	18.69
Period Hrs				
(G) Net mWh Not Generated due to	94,432	94,772	22,561	211,766
Partial Scheduled Outages				
(H) Scheduled Derates: percent of	5.23	5.25	0.84	3.37
Period Hrs				
(I) Net mWh Not Generated due to	58,792	60,941	89,015	208,749
Full Forced Outages				
(J) Forced Outages: percent	3.26	3.38	3.32	3.32
of Period Hrs (K) Net mWh Not Generated due to				
	0	0	13,528	13,528
Partial Forced Outages				
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.50	0.22
(M) Net mWh Not Generated due to				
Economic Dispatch	198,147	179,921	481,907	859,975
(N) Economic Dispatch: percent				
of Period Hrs	10.98	9.97	17.98	13.67
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,680,560	6,289,680
` '	, ,	, ,	, ,	, ,
(P) Equivalent Availability (%)	72.59	72.41	76.97	74.41
(Q) Output Factor (%)	81.84	81.68	76.53	79.51
(R) Heat Rate (BTU/NkWh)	10,533	10,439	2,193	7,053

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 16 of 21

Baseload Steam and CHP Units Performance Review Plan

Clark Exhibit 6, Schedule 10

January, 2023 through December, 2023 Clemson CHP

**Duke Energy Carolinas** 

	Clemson CHP1
(A) MDC (mW)	16
(B) Period Hrs	8,760
(C) Net Generation (mWh)	108,527
(D) Capacity Factor (%)	79.93
(E) Net mWh Not Generated due to	6,251
<b>Full Scheduled Outages</b>	0,231
(F) Scheduled Outages: percent of	4.60
Period Hrs	
(G) Net mWh Not Generated due to	14,509
Partial Scheduled Outages	
(H) Scheduled Derates: percent of	10.69
Period Hrs	
(I) Net mWh Not Generated due to	13
Full Forced Outages	
(J) Forced Outages: percent	0.01
of Period Hrs	
(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	6,480
(N) Economic Dispatch: percent	
of Period Hrs	4.77
(O) Net mWh Possible in Period	135,780
(P) Equivalent Availability (%)	84.70
(Q) Output Factor (%)	
( ) I	83.79
(R) Heat Rate (BTU/NkWh)	11,420

- 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.

## December 2023 DEC NC Baseload PPPR PAGE 17 of 21

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan

Clark Exhibit 6, Schedule 10

January, 2023 through December, 2023 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)	1,056,369	1,096,342	1,576,101	3,728,812
(D) Capacity Factor (%)	58.54	60.75	58.42	59.12
(E) Net mWh Not Generated due to	369,857	371,721	528,811	1,270,389
Full Scheduled Outages	307,037	3/1,/21	320,011	1,270,309
(F) Scheduled Outages: percent of	20.50	20.60	19.60	20.14
Period Hrs (G) Net mWh Not Generated due to				
Partial Scheduled Outages	123,174	124,346	23,904	271,423
(H) Scheduled Derates: percent of	6.02	<i>C</i> 00	0.00	4.20
Period Hrs	6.83	6.89	0.89	4.30
(I) Net mWh Not Generated due to	45,324	49,125	97,673	192,122
Full Forced Outages	13,321	15,125	71,013	172,122
(J) Forced Outages: percent	2.51	2.72	3.62	3.05
of Period Hrs (K) Net mWh Not Generated due to				
Partial Forced Outages	14,439	15,677	0	30,115
(L) Forced Derates: percent of	0.00	0.07	0.00	0.40
Period Hrs	0.80	0.87	0.00	0.48
(M) Net mWh Not Generated due to	195,398	147,350	471,591	814,339
<b>Economic Dispatch</b>	173,376	147,550	4/1,3/1	014,337
(N) Economic Dispatch: percent	10.83	8.17	17.48	12.91
of Period Hrs	1 904 560	1 204 560	2 (00 000	( 207 200
(O) Net mWh Possible in Period	1,804,560	1,804,560	2,698,080	6,307,200
(P) Equivalent Availability (%)	69.37	68.92	75.89	72.03
(Q) Output Factor (%)	78.10	79.31	76.08	77.58
(R) Heat Rate (BTU/NkWh)	10,909	10,736	2,115	7,141

- 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.

## **DEC NC Baseload PPPR Duke Energy Carolinas Baseload Steam and CHP Units**

Clark Exhibit 6, Schedule 10

December 2023

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## **Performance Review Plan** January, 2023 through December, 2023 **Marshall Station**

	Unit 3	Unit 4
(A) MDC (mW)	658	660
(B) Period Hrs	8,760	8,760
(C) Net Generation (mWh)	2,294,386	3,018,573
(D) Capacity Factor (%)	39.80	52.21
(E) Net mWh Not Generated due to	1,489,153	674,263
Full Scheduled Outages	1,407,133	074,203
(F) Scheduled Outages: percent of	25.84	11.66
Period Hrs		
(G) Net mWh Not Generated due to	37,861	23,166
Partial Scheduled Outages	,	,
(H) Scheduled Derates: percent of	0.66	0.40
Period Hrs		
(I) Net mWh Not Generated due to Full Forced Outages	422,640	208,309
(J) Forced Outages: percent		
of Period Hrs	7.33	3.60
(K) Net mWh Not Generated due to	105.101	0.7.604
Partial Forced Outages	137,121	85,694
(L) Forced Derates: percent of	2.38	1.48
Period Hrs	2.30	1.40
(M) Net mWh Not Generated due to	1,382,919	1,771,595
<b>Economic Dispatch</b>	1,302,717	1,771,373
(N) Economic Dispatch: percent	23.99	30.64
of Period Hrs	23.55	20.0.
(O) Net mWh Possible in Period	5,764,080	5,781,600
(P) Equivalent Availability (%)	63.80	82.85
(Q) Output Factor (%)	60.04	64.10
(R) Heat Rate (BTU/NkWh)	10,138	10,145

- · 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.

## December 2023 DEC NC Baseload PPPR PAGE 19 of 21

Clark Exhibit 6,

Schedule 10

## Duke Energy Carolinas Baseload Steam and CHP Units Performance Review Plan

January, 2023 through December, 2023 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)	1,736,246	1,775,803	2,429,400	5,941,449
(D) Capacity Factor (%)	79.92	81.74	88.60	83.84
(E) Net mWh Not Generated due to	93,429	96,611	125,817	315,857
Full Scheduled Outages			-,	,
(F) Scheduled Outages: percent of	4.30	4.45	4.59	4.46
Period Hrs				
(G) Net mWh Not Generated due to	69,256	74,021	0	143,277
Partial Scheduled Outages				
(H) Scheduled Derates: percent of Period Hrs	3.19	3.41	0.00	2.02
(I) Net mWh Not Generated due to				
Full Forced Outages	64,877	66,724	88,789	220,390
(J) Forced Outages: percent	• • •			
of Period Hrs	2.99	3.07	3.24	3.11
(K) Net mWh Not Generated due to	0	0	0	0
Partial Forced Outages	Ü	U	U	U
(L) Forced Derates: percent of	0.00	0.00	0.00	0.00
Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to	208,672	159,321	97,874	465,867
Economic Dispatch	200,072	137,321	77,071	103,007
(N) Economic Dispatch: percent	9.61	7.33	3.57	6.57
of Period Hrs				
(O) Net mWh Possible in Period	2,172,480	2,172,480	2,741,880	7,086,840
(P) Equivalent Availability (%)	89.53	89.07	92.17	90.41
(Q) Output Factor (%)	86.79	89.37	96.77	91.44
(R) Heat Rate (BTU/NkWh)	10,717	10,472	2,401	7,243

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

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Schedule 10

Duke Energy Carolinas Intermediate Power Plant Performance Review Plan January, 2023 through December, 2023

## **Cliffside Station**

Unit	S	Unit 6
(A)	MDC (mW)	849
<b>(B)</b>	Period Hrs	8,760
<b>(C)</b>	Net Generation (mWh)	4,293,742
<b>(D)</b>	Net mWh Possible in Period	7,437,240
<b>(E)</b>	Equivalent Availability (%)	78.12
<b>(F)</b>	Output Factor (%)	73.56
( <b>G</b> )	Capacity Factor (%)	57.73

## Notes:

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

December 2023 DEC NC Baseload PPPR PAGE 21 of 21

Clark Exhibit 6, Schedule 10

## Duke Energy Carolinas Peaking Power Plant Performance Review Plan January, 2023 through December, 2023

## **Cliffside Station**

Unit	s	Unit 5
<b>(A)</b>	MDC (mW)	546
<b>(B)</b>	Period Hrs	8,760
<b>(C)</b>	Net Generation (mWh)	951,065
<b>(D)</b>	Net mWh Possible in Period	4,782,960
<b>(E)</b>	<b>Equivalent Availability (%)</b>	51.39
<b>(F)</b>	Output Factor (%)	52.03
<b>(G)</b>	Capacity Factor (%)	19.88

## 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 Base Rate Decrement Adjustment Related to Voltage Differential
Test Period Ended December 31, 2023
Billing Period September 2024 through August 2025
Docket E-7, Sub 1304

Line #	Description	Reference	Residential	GS/Lighting	Industrial	Total
1	NC Projected Billing Period MWh Sales at Meter	Workpaper 7	22,870,391	24,590,927	12,348,188	59,809,506
Calcula	tion of Fuel (Non-Capacity) Rate by Class					Amount
2	System Fuel (Non-Capacity) Costs	Workpaper 7 - Line 11			\$	2,043,629,333
3	NC Portion - Jurisdictional % based on Projected Billing Period MWh Sales at Meter	Workpaper 7				66.49%
4	NC Retail Fuel (Non-Capacity) Costs before 2.5% Purchase Power Test	Line 2 * Line 3			\$	1,358,809,144
5	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 9				=
6	NC Retail Fuel (Non-Capacity) Costs Allowable Under GEN. STAT. § 62-133.2(A2)	Line 4 + Line 5			\$	1,358,809,144
7	NC Retail Projected Billing Period MWh Sales Allocation Factors at Generator	Line 1 / Line 1 Total	38.24%	41.12%	20.65%	100.00%
8	Fuel (Non-Capacity) Costs allocated on Projected Billing Period MWh Sales	Line 6 * Line 7	\$ 519,591,257 \$	558,680,028 \$	280,537,859 \$	1,358,809,144
Calcula	tion of Renewable and Cogeneration Purchased Power Capacity Rate by Class					Amount
9	Purchased Power for REPS Compliance - Capacity	Workpaper 4			\$	11,295,326
10	QF Purchased Power - Capacity	Workpaper 4				10,496,458
11	Total of Renewable and QF Purchased Power Capacity	Line 9 + Line 10			\$	21,791,784
12	NC Portion - Jursidicational % based on 2022 Production Demand Allocator	Input			<u> </u>	67.12%
13	NC Renewable and QF Purchased Power - Capacity	Line 11 * Line 12			\$	14,626,471
14	2022 Production Demand Allocation Factors	Input	49.05%	35.73%	15.22%	100.00%
15	Renewable and QF Purchased Power - Capacity allocated on 2022 Production Demand Allocator	Line 13 * Line 14	\$ 7,174,604 \$	5,226,011 \$	2,225,856 \$	14,626,471
16	Total Fuel Expense Using NC Projected Billing Period MWh Sales at Meter	Line 8 + Line 15	\$ 526,765,861 \$	563,906,038 \$	282,763,715 \$	1,373,435,615
17	Total Fuel Expense Using NC Projected Billing Period MWh Sales at Generator	Exh2 Sch 1 Page 2 of 2	\$ 527,418,801 \$	566,693,284 \$	283,410,788 \$	1,377,522,873
18	Difference in Fuel Total Fuel Expense Attributable to Voltage Differential	Line 16 - Line 17	\$ (652,940) \$	(2,787,246) \$	(647,073) \$	(4,087,259)
19	NC Projected Sales at Meter	Workpaper 7	22,870,391	24,590,927	12,348,188	59,809,506
20	Proposed Decrement Rider Attributable to Voltage Differentia	Line 18 / Line 19 / 10	(0.0029)	(0.0113)	(0.0052)	(0.0068)

Clark Workpaper 1

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Proposed Nuclear Capacity Factor
Billing Period September 2024 through August 2025
Docket E-7, Sub 1304

	Catavilla 1	Catawha 2	MaCuina 1	MaCuina 2	01	0	0	Tatal
	Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs	9,447,231	10,027,396	9,446,071	9,372,290	6,881,925	7,468,908	7,564,100	60,207,920
Cost (Gross of Joint Owners)	\$ 53,807,708							332,225,252
	,,,	, - ,,- ,	-,,	, - ,,	, , , , , ,	,,,	, , , , , , , , , ,	, ,,
\$/MWh	5.6956	5.7689	4.9745	5.5595	5.5847	5.1993	5.8446	
Avg \$/MWh		5.5180						
Cents per kWh		0.5518						
		S	ept 2024 - August 2025					
MDC								
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					
OCON_UN01	Oconee	MW	847.0					
OCON_UN02	Oconee	MW	848.0					
OCON_UN03	Oconee	MW	859.0					
			7,179.7					
Hours In Year			8,760					
Generation GWhs								
CATA_UN01	Catawba	GWh	9,447					
CATA_UN02	Catawba	GWh	10,027					
MCGU_UN01	McGuire	GWh	9,446					
MCGU_UN02	McGuire	GWh	9,372					
OCON_UN01	Oconee	GWh	6,882					
OCON_UN02	Oconee	GWh	7,469					
OCON_UN03	Oconee	GWh	7,564					
			60,208					
	Proposed Nucle	ear Capacity Factor	95.73%					

Clark Workpaper 2

Duke Energy Carolinas, LLC

North Carolina Annual Fuel and Fuel Related Expense

NERC 5 Year Average Nuclear Capacity Factor

Billing Period September 2024 through August 2025

Docket E-7, Sub 1304

	 Catawba 1	Catawba 2	McGuire 1	McGuire 2	Oconee 1	Oconee 2	Oconee 3	Total
MWhs with NERC applied	9,294,816	9,215,489	9,278,790	9,275,585	6,875,855	6,883,972	6,973,269	57,797,776
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	91.47%	91.47%	91.47%	91.47%	92.67%	92.67%	92.67%	91.90%
Cost	\$ 51.288.476 \$	50.850.755 \$	51.200.047 \$	51.182.362 \$	37.940.731 \$	37.985.525	38.478.262 \$	318.926.159

 Avg \$/MWh
 5.5180

 Cents per kWh
 0.5518

	Capacity	NCF	Weighted
2018-2022	Rating	Rating	Average
Oconee 1	847.0	92.67	10.93%
Oconee 2	848.0	92.67	10.95%
Oconee 3	859.0	92.67	11.09%
McGuire 1	1,158.0	91.47	14.75%
McGuire 2	1,157.6	91.47	14.75%
Catawba 1	1,160.0	91.47	14.78%
Catawba 2	1,150.1	91.47	14.65%
	7,179.7		91.90%

Wtd Avg on Capacity Rating

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
North Carolina Generation and Purchased Power in MWhs
Billing Period September 2024 through August 2025
Docket E-7, Sub 1304

Clark Workpaper 3

	Sept 2024 - August	
Resource Type	2025	
NUC Total (Gross)	60,207,920	
COAL Total	12,133,505	
Gas CT and CC total (Gross)	25,398,789	
Run of River	4,222,386	
Net pumped Storage	(3,257,750)	
Total Hydro	964,636	
Catawba Joint Owners	(14,116,637)	
Lee CC Joint Owners	(876,000)	
DEC owned solar	431,227	
Total Generation		84,143,439
Purchases for REPS Compliance	1,064,067	
Qualifying Facility Purchases - Non-REPS compliance	2,075,391	
Other Purchases	313,719	
Allocated Economic Purchases	467,186	
Joint Dispatch Purchases	8,665,644	
	12,586,006	
Total Generation and Purchased Power		96,729,446
Fuel Recovered Through Intersystem Sales	(666,675)	
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 2024 through August 2025
Docket E-7, Sub 1304

Clark Workpaper 4

Resource Type	Sept 2024 - August 2025
Nuclear Total (Gross)	\$ 332,225,252
COAL Total	535,009,000
Gas CT and CC total (Gross)	863,780,065
Catawba Joint Owner costs	(77,896,854)
CC Joint Owner costs	(21,752,442)
Reagents and gain/loss on sale of By-Products	30,185,368 Workpaper 8
Purchases for REPS Compliance - Energy	51,648,652
Purchases for REPS Compliance - Capacity	11,295,326
Purchases of Qualifying Facilities - Energy	50,840,078
Purchases of Qualifying Facilities - Capacity	10,496,458
Other Purchases	10,583,349
JDA Savings Shared	34,396,187 Workpaper 5
Allocated Economic Purchase cost	18,114,953 Workpaper 5
Joint Dispatch purchases	240,665,893 Workpaper 6
Total Purchases	428,040,896
Fuel Expense recovered through intersystem sales	(27,889,431) Workpaper 5
Total System Fuel and Fuel Related Costs	\$ 2,061,701,854

May 08 2024

**Duke Energy Carolinas, LLC** North Carolina Annual Fuel and Fuel Related Expense **Projected Joint Dispatch Fuel Impacts Billing Period September 2024 through August 2025** Docket E-7, Sub 1304

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

	Positive numbers represent costs to ratepayers, regative numbers represent removal of costs to ratepayers													
	Allocated Economi	c Purchase Cost		Economic	Sale	s Cost	Fuel Transfer Payment				JDA Savings Payment			
	DEP	DEC		DEP DEC		DEC		DEP		DEC		DEP		DEC
9/1/2024	\$ 436,812	\$ 645,500	\$	(632,756)	\$	(817,493)	\$	(23,633,592)	\$	23,633,592	\$	(5,606,498)	\$	5,606,498
10/1/2024	\$ 271,867	\$ 414,509	\$	(655,410)	\$	(994,763)	\$	(22,697,388)	\$	22,697,388	\$	(5,774,653)	\$	5,774,653
11/1/2024	\$ 368,297	\$ 557,717	\$	(768,230)	\$	(870,196)	\$	(15,549,159)	\$	15,549,159	\$	(1,949,764)	\$	1,949,764
12/1/2024	\$ 524,633	\$ 753,841	\$	(1,304,569)	\$	(1,477,550)	\$	(17,819,465)	\$	17,819,465	\$	(1,388,719)	\$	1,388,719
1/1/2025	\$ 2,446,075	\$ 3,483,576	\$	(2,052,991)	\$	(2,574,603)	\$	(20,822,899)	\$	20,822,899	\$	(2,918,522)	\$	2,918,522
2/1/2025	\$ 1,393,923	\$ 2,027,148	\$	(1,828,720)	\$	(2,527,737)	\$	(23,044,391)	\$	23,044,391	\$	(2,629,204)	\$	2,629,204
3/1/2025	\$ 248,720	\$ 353,347	\$	(1,944,697)	\$	(2,148,243)	\$	(10,835,036)	\$	10,835,036	\$	(1,577,570)	\$	1,577,570
4/1/2025	\$ 281,105	\$ 419,737	\$	(1,108,299)	\$	(1,589,401)	\$	(20,154,107)	\$	20,154,107	\$	(4,214,847)	\$	4,214,847
5/1/2025	\$ 306,089	\$ 440,371	\$	(1,330,210)	\$	(1,812,063)	\$	(14,494,693)	\$	14,494,693	\$	(2,689,742)	\$	2,689,742
6/1/2025	\$ 2,127,583	\$ 3,104,942	\$	(991,750)	\$	(1,133,216)	\$	(20,285,202)	\$	20,285,202	\$	(1,053,147)	\$	1,053,147
7/1/2025	\$ 2,373,137	\$ 3,320,464	\$	(1,439,263)	\$	(1,566,216)	\$	(21,552,596)	\$	21,552,596	\$	(4,053,576)	\$	4,053,576
8/1/2025	\$ 1,822,499	\$ 2,593,800	\$	(1,347,905)	\$	(1,499,489)	\$	(20,898,904)	\$	20,898,904	\$	(539,944)	\$	539,944

Sept 24 - Aug 25	\$	18,114,953	\$	(19,010,968)	\$	231,787,430	\$	34,396,187
						240,665,893 Workpaper 6 - Ti (8,878,463) Workpaper 6 - Ti		
rounding differe	nces may occur				\$	231,787,430 Sept 24 - Aug 25	Net F	Fuel Transfer Payment
					\$	(8,878,463) Workpaper 6 - Ti	ransfei	r - Sales

(19,010,968) Sept 24 - Aug 25 Economic Sales Cost

(27,889,431) 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 2024 through August 2025
Docket E-7, Sub 1304

Clark Workpaper 6

					Purchase	Sale			Sale	Purchase
	Transfer P	rojection	Purchase Alloc	ation Delta	Adjusted Tra	ansfer	Fossil Ger	Cost	Pre-Net F	Payments
	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC	PEC	DEC	PECtoDEC	DECtoPEC
9/1/2024	1,034,410	3,988	(107)	107	1,034,410	4,095	22.95	24.73	101,264	23,734,856
10/1/2024	1,053,555	2,994	960	(960)	1,054,515	2,994	21.59	24.35	72,890	22,770,277
11/1/2024	663,811	23,847	(163)	163	663,811	24,011	24.35	25.48	611,700	16,160,859
12/1/2024	666,108	31,407	13	(13)	666,120	31,407	28.12	28.96	909,705	18,729,170
1/1/2025	674,906	36,360	(5,034)	5,034	674,906	41,394	33.01	35.10	1,453,104	22,276,003
2/1/2025	751,943	16,326	(3,124)	3,124	751,943	19,449	31.56	35.21	684,894	23,729,285
3/1/2025	442,991	53,865	(67)	67	442,991	53,932	27.73	26.88	1,449,862	12,284,897
4/1/2025	745,064	11,720	874	(874)	745,938	11,720	27.44	27.13	317,906	20,472,012
5/1/2025	573,643	25,667	160	(160)	573,803	25,667	26.52	28.07	720,462	15,215,155
6/1/2025	701,331	14,494	(5,841)	5,841	701,331	20,334	29.81	30.73	624,928	20,910,130
7/1/2025	685,572	23,909	(7,263)	7,263	685,572	31,173	32.95	33.16	1,033,842	22,586,438
8/1/2025	670,304	19,461	(7,752)	7,752	670,304	27,213	32.52	33.00	897,907	21,796,812
			-	•		·		-		
Sept 24 - Aug 25	8,663,637	264,038	(27,345)	27,345	8,665,644	293,389			\$ 8,878,463	\$ 240,665,893
								Net	\$ 231,787,430	

Clark Workpaper 7

**Duke Energy Carolinas, LLC** North Carolina Annual Fuel and Fuel Related Expense **Projected and Adjusted Projected Sales and Costs Proposed Nuclear Capacity Factor of 95.73%** Billing Period September 2024 through August 2025 Docket E-7, Sub 1304

Fall 2023 Forecast **Billed Sales Forecast** Sales Forecast - MWhs (000)

		1	Remove impact of			
		Projected sales	SC DERP Net		2022 Cost of	Adjusted
		At Meter for the	Metered		Service	Projected Sales
		Billing Period	Generation	Adjusted Sales	Line Loss Factors	at Generation
North Carolina:						
North Caronna.	Residential	22,870,391		22,870,391	5.4880%	24,198,399
	General	24,349,887		24,349,887	5.8390%	25,859,843
	Industrial	12,348,188		12,348,188	5.5870%	13,078,907
	Lighting	241,040		241,040	5.8390%	255,987
	NC RETAIL	59,809,506	-	59,809,506		63,393,136
South Carolina:						
	Residential	7,051,738		7,051,738		
	General	5,570,198		5,570,198		
	Industrial	8,525,790		8,525,790		
	Lighting	48,602		48,602		
	SC RETAIL	21,196,328	150,334	21,346,662	5.8280%	22,667,738
Total Retail Sales						
	Residential	29,922,129	-	29,922,129		
	General	29,920,085	-	29,920,085		
	Industrial	20,873,978	-	20,873,978		
	Lighting	289,642	-	289,642		
	Retail Sales	81,005,834	150,334	81,005,834		86,060,874
	Wholesale	8,800,590	-	8,800,590	2.1900%	8,997,638
	Projected System MWH Sales for Fuel Factor	89,806,424	150,334	89,956,758		95,058,512
	NC as a percentage of total	66.60%		66.49%		66.69%
	SC as a percentage of total	23.60%		23.73%		23.85%
	Wholesale as a percentage of total	9.80%		9.78%		9.47%
		100.00%		100.00%		100.00%
	SC Net Metering allocation adjustment					
	Total projected SC NEM MWhs		150,334			
	Marginal fuel rate per MWh for SC NEM	_	\$ 24.74			
	Fuel benefit to be directly assigned to SC Retail		\$ 3,719,263			
	System Fuel Expe	ense	\$ 2,061,701,854 CI	ark Exhibit 2 Schedule 1 Page 1 of 3		
			0 240 000			

Fuel benefit to be directly assigned to SC Retail

**Total Fuel Costs for Allocation** 

\$ 3,719,263 \$ 2,065,421,117 Clark Exhibit 2 Schedule 1 Page 3 of 3, L5

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Projected and Adjusted Projected Sales and Costs
Proposed Nuclear Capacity Factor of 95.73% and Normalized Test Period Sales
Billing Period September 2024 through August 2025
Docket E-7, Sub 1304

Fall 2023 Forecast

**Billed Sales Forecast - Normalized Test Period Sales** 

Sales Forecast - MWhs (000)

								Normalized
					Remove impact of SC			<b>Test Period Sales</b>
			<b>Customer Growth</b>		DERP Net Metered	Normalized Test	2022 Cost of Service	MWhs at
		Test Period Sales	Adjustment	Weather Adjustment	generation	Period Sales	Line Loss Factors	Generation
NC RETAIL								
NC KETAIL	Residential	21,544,402	216,090	1,046,809		22,807,302	5.4880%	24,131,647
	General & Lighting	24,310,321	(44,343)			24,474,032	5.8390%	25,991,687
	Industrial	11,674,957	12,311	17,164		11,704,432	5.5870%	12,397,056
NC RETAIL		57,529,680	184,058	1,272,028	-	58,985,766		62,520,389
SC RETAIL		20,649,066	131,233	387,779	150,334	21,318,412	5.8280%	22,637,740
Wholesale		8,177,978	89,190	96,670	-	8,363,838	2.1900%	8,551,107
Normalized Systen	n MWH Sales for Fuel Factor	86,356,724	404,481	1,756,476	150,334	88,668,017		93,709,236
NC as a percentage	e of total	66.62%				66.52%		66.72%
SC as a percentage	of total	23.91%				24.04%		24.16%
Wholesale as a per	centage of total	9.47%			<u>_</u>	9.43%	_	9.13%
		100.00%				100.00%		100.00%
SC Net Metering a	llocation adjustment							
Total projected SC	NEM MWhs	150,334						
Marginal fuel rate	per MWh for SC NEM	\$ 24.74						
Fuel benefit to be o	directly assigned to SC Retail	\$ 3,719,263						
System Fuel Expen	se	\$ 2,011,505,418	Clark Exhibit 2 Sche	edule 2 Page 1 of 2				
Fuel benefit to be o	directly assigned to SC Retail	3,719,263						
Total Fuel Costs for	Allocation	\$ 2,015,224,681						

Clark Workpaper 7b

Fall 2023 Forecast Billed Sales Forecast Sales Forecast - MWhs (000)

		Projected sales for the Billing Period	Remove impact of SC DERP Net Metered generation	Adjusted Sales	2022 Cost of Service Line Loss Factors	Adjusted Projected Sales at Generation
North Carolina:						
	Residential	22,870,391		22,870,391	5.4880%	24,198,399
	General	24,349,887		24,349,887	5.8390%	25,859,843
	Industrial	12,348,188		12,348,188	5.5870%	13,078,907
	Lighting	241,040		241,040	5.8390%	255,987
	NC RETAIL	59,809,506	-	59,809,506		63,393,136
South Carolina:						
	Residential	7,051,738		7,051,738		
	General	5,570,198		5,570,198		
	Industrial	8,525,790		8,525,790		
	Lighting	48,602		48,602		
	SC RETAIL	21,196,328	150,334	21,346,662	5.8280%	22,667,738
Total Retail Sales						
	Residential	29,922,129	-	29,922,129		
	General	29,920,085	-	29,920,085		
	Industrial	20,873,978	-	20,873,978		
	Lighting	289,642	-	289,642		
	Retail Sales	81,005,834	150,334	81,156,168		86,211,208
	Wholesale	8,800,590	-	8,800,590	2.1900%	8,997,638
	Projected System MWh Sales for Fuel Factor	89,806,424	150,334	89,956,758	<u>.</u>	95,208,846
	NC as a percentage of total	66.60%		66.49%		66.58%
	SC as a percentage of total	23.60%		23.73%		23.81%
	Wholesale as a percentage of total	9.80%		9.78%		9.45%
		100.00%	_	100.00%		99.80%
	SC Net Metering allocation adjustment					
	Total projected SC NEM MWhs		150,334			
	Marginal fuel rate per MWh for SC NEM	_	\$ 24.74			
	Fuel benefit to be directly assigned to SC Retail	_	\$ 3,719,263			
	System Fuel Expense		\$ 2,132,875,765 C	lark Exhibit 2 Schedule	e 3 Page 1 of 2	
	Fuel benefit to be directly assigned to SC Retail		\$ 3,719,263			
	Total Fuel Costs for Allocation		\$ 2,136,595,028			

May 08 2024

Duke Energy Carolinas, LLC

North Carolina Annual Fuel and Fuel Related Expense

Line Loss Calculation Factors - 12 Months Ending December 31, 2022

Billing Period September 2024 through August 2025

Docket E-7, Sub 1304

	MWh at Meter	MWh at Meter Allocation	MWh at at Generation (high side of GSU)	MWh at Generatio n Allocation	Losses
North Carolina			,		
Residential	22,375,068	25.44%	23,603,052	25.46%	1,227,984
General Service/Ligh	24,374,324	27.71%	25,797,639	27.83%	1,423,316
Industrial	12,309,569	13.99%	12,997,365	14.02%	687,796
Total NCR	59,058,961	67.14%	62,398,056	67.31%	3,339,095
NCWHS incl.					
NCEMPA	3,299,248	3.75%	3,373,119	3.64%	73,871
Total NC	62,358,208	70.89%	65,771,175	70.95%	3,412,967
South Carolina					
Residential	6,858,353	7.80%	7,234,752	7.80%	376,399
General Service/Ligh	5,679,157	6.46%	6,025,412	6.50%	346,255
Industrial	8,371,712	9.52%	8,867,745	9.57%	496,033
Total SCR	20,909,221	23.77%	22,127,908	23.87%	1,218,687
SC Greenwood	46,046	0.05%	48,600	0.05%	
SCWHS	4,650,971	5.29%	4,755,107	5.13%	104,137
Total SC	25,606,238	29.11%	26,931,615	29.05%	1,322,824
Total System	87,964,446	100.00%	92,702,790	100.00%	4,738,344

Clark Workpaper 7c

		Cost of Service	e Data Summarized	
	MWh @ Meter	MWh @ Generator	Losses (MWh)	Loss Percent
Residential	22,375,068	23,603,052	1,227,984	5.4880%
GS/Lighting	24,374,324	25,797,639	1,423,316	5.8390%
Industrial	12,309,569	12,997,365	687,796	5.5870%
Total NC Retail	59,058,961	62,398,056	3,339,095	5.6540%
Total NC Retail	59,058,961	62,398,056	3,339,095	5.6540%
SC Retail	20,909,221	22,127,908	1,218,687	5.8280%
12ME NEM Generation	150,334	159,095	8,761	5.8280%
Total SC Retail	21,059,555	22,287,004	1,227,448	5.8280%
Wholesale	7,845,930	8,017,730	171,800	2.1900%
Total System	87,964,446	92,702,790	4,738,344	5.3870%

93,858,399

66.61% WP 7a

Line Loss Calculations for		
<b>Projected Fuel Costs</b>	MWh @ Meter	MWh @ Generator
Residential	22,870,391	24,198,399
GS/Lighting	24,590,927	26,115,830
Industrial	12,348,188	13,078,907
Total NC Retail	59,809,506	63,393,136
Total SC Retail	21,346,662	22,667,738
Wholesale	8,800,590	8,997,638
Total System	89,956,758	95,058,512
Allocation percent - NC retail	66.49%	66.69% WP 7, WP

<b>Line Loss Calculations for</b>		
<b>Normalized Test Period Sales</b>	MWh @ Meter	MWh @ Generator
Residential	22,807,302	24,131,647
GS/Lighting	24,474,032	25,991,687
Industrial	11,704,432	12,397,056
Total NC Retail	58,985,766	62,520,389
Total SC Retail	21,318,412	22,637,740
Wholesale	8,509,735	8,700,271

**Total System** Allocation percent - NC retail 88,813,913

66.42%

Clark Workpaper 8

May 08 2024

Duke Energy Carolinas, LLC North Carolina Annual Fuel and Fuel Related Expense Projected Reagents and ByProducts Billing Period September 2024 through August 2025 Docket E-7, Sub 1304

Reagent and ByProduct projections

				Magnesium				Gypsu	m			Sale	of By-Products
Date	Ammonia	Urea	Limestone	Hydroxide	Calcium Carbonate	Lime	Reagent Cost	(Gain)/	Loss	Ash (Gain)/Loss	Steam (Gain)/Loss		(Gain)/Loss
9/1/2024 \$	820,679 \$	78,192 \$	984,788 \$	36,763	\$ 22,497	\$ 18,972	\$ 1,961,891	34:	1,938	\$ (82,102) \$		(187,229) \$	72,608
10/1/2024 \$	518,622 \$	49,413 \$	622,329 \$	15,829	\$ 9,686	\$ 18,972	\$ 1,234,850	\$ 184	4,644	\$ (73,654) \$		(187,229) \$	(76,238)
11/1/2024 \$	739,868 \$	70,493 \$	887,817 \$	68,073	\$ 41,657	\$ 18,972	\$ 1,826,879	\$ 28!	5,203	\$ (99,874) \$		(187,229) \$	(1,900)
12/1/2024 \$	1,205,312 \$	114,839 \$	1,446,334 \$	124,781	\$ 76,359	\$ 18,972	\$ 2,986,596	534	4,190	\$ (133,045) \$		(187,229) \$	213,916
1/1/2025 \$	1,668,119 \$	158,934 \$	2,001,687 \$	169,764	\$ 103,885	\$ 18,972	\$ 4,121,360	5 778	8,575	\$ (165,059) \$		(187,229) \$	426,287
2/1/2025 \$	1,580,992 \$	150,633 \$	1,897,137 \$	148,850	\$ 91,087	\$ 18,972	\$ 3,887,671	5 77	2,758	\$ (125,188) \$		(187,229) \$	460,341
3/1/2025 \$	325,983 \$	31,059 \$	391,169 \$	49,658	\$ 30,387	\$ 18,972	\$ 847,228	3 16:	1,566	\$ (25,768) \$		(187,229) \$	(51,430)
4/1/2025 \$	263,450 \$	25,101 \$	316,132 \$	36,766	\$ 22,499	\$ 18,972	\$ 682,920	3 13	4,964	\$ (26,688) \$		(187,229) \$	(78,952)
5/1/2025 \$	317,527 \$	30,253 \$	381,021 \$	39,899	\$ 24,416	\$ 18,972	\$ 812,088	5 159	9,994	\$ (30,802) \$		(187,229) \$	(58,036)
6/1/2025 \$	989,053 \$	94,234 \$	1,186,830 \$	62,303	\$ 38,126	\$ 18,972	\$ 2,389,518	\$ 45	4,795	\$ (94,572) \$		(187,229) \$	172,995
7/1/2025 \$	1,616,811 \$	154,045 \$	1,940,118 \$	72,971	\$ 44,654	\$ 18,972	\$ 3,847,571	5 73	8,176	\$ (150,146) \$		(221,902) \$	366,128
8/1/2025 \$	1,592,680 \$	151,746 \$	1,911,162 \$	70,000	\$ 42,836	\$ 18,972	\$ 3,787,397	5 73:	1,125	\$ (155,541) \$		(221,902) \$	353,682
\$	11,639,095 \$	1,108,942 \$	13,966,522 \$	895,657	\$ 525,592	\$ 227,663	\$ 28,385,967	\$ 5,27	7,930	\$ (1,162,439) \$		(2,316,089) \$	1,799,401

rounding differences may occur

Total Reagent cost and Sale of By-products \$ 30,185,368 Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test
Twelve Months Ended December 31, 2023
Billing Period September 2024 through August 2025
Docket E-7, Sub 1304

Clark Workpaper 9

Line No.	Description	Forecast \$	(Over)/Under Collection \$	Total \$
2	1 Amount in current docket	101,757,298	2,705,033	104,462,331
2	2 Amount in Sub 1282, prior year docket	108,889,655	70,794,129	179,683,784
3	3 Increase/(Decrease)	(7,132,357)	(68,089,097)	(75,221,453)
2	4 2.5% of 2023 NC retail revenue of \$5,417,293,543			135,432,339
	Excess of purchased power growth over 2.5% of revenue			0
	E-7, Sub 1304			
WP 4	Purchases for REPS Compliance - Energy	51,648,652	66.49%	34,341,189
WP 4	Purchases for REPS Compliance - Capacity	11,295,326	66.68%	7,531,868
WP 4	Purchases	10,583,349	66.49%	7,036,869
WP 4	QF Energy	50,840,078	66.49%	33,803,568
WP 4	QF Capacity	10,496,458	66.68%	6,999,173
WP 4	Allocated Economic Purchase cost	18,114,953	66.49%	12,044,632
		152,978,816		101,757,298
	E-7, Sub 1282			
	Purchases for REPS Compliance	68,804,621	67.00%	46,099,096
	Purchases for REPS Compliance Capacity	14,936,094	66.68%	9,959,579
	Purchases	442,692	67.00%	296,604
	QF Energy	46,784,121	67.00%	31,345,361
	QF Capacity	9,663,863	66.68%	6,443,988
	Allocated Economic Purchase cost	22,007,503	67.00%	14,745,027
		162,638,895		108,889,655

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test
Twelve Months Ended December 31, 2023
Docket E-7, Sub 1304

System kWh Sales - Sch 4, Actuals System kWh Sales - Sch 4, Adjusted NC Retail kWh Sales - Sch 4 NC Retail % of Sales, Actuals (Calc) NC Retail % of Sales, Adjusted (Calc)	Jan-23 7,843,597,546 7,854,287,999 5,297,871,075 67.54% 67.45%	Feb-23 6,924,227,615 6,934,846,782 4,651,448,264 67.18% 67.07%	Mar-23 6,631,247,215 6,641,557,020 4,457,422,794 67.22% 67.11%	6,514,366,828	May-23 6,136,163,890 6,146,930,258 4,081,225,729 66.51% 66.39%	Jun-23 7,008,836,135 7,019,586,081 4,645,595,587 66.28% 66.18%	Jul-23 7,969,442,680 7,980,161,318 5,265,835,034 66.08% 65.99%	Aug-23 8,657,828,158 8,668,518,310 5,747,161,460 66.38% 66.30%	Sep-23 8,266,012,697 8,276,682,129 5,553,369,282 67.18% 67.10%	Oct-23 6,726,216,362 6,736,893,311 4,434,404,716 65.93% 65.82%	Nov-23 6,246,014,428 6,257,253,723 4,239,284,678 67.87% 67.75%	<b>Dec-23</b> 7,443,553,219 7,454,787,248 4,771,175,352 64.10% 64.00%	12 ME 86,356,723,933 86,485,871,009 57,529,680,110 66.62% 66.52%
NC retail production plant%  Fuel and Fuel related component of purchased power	66.68%	66.68%	66.68%	66.68%	67.59%	67.59%	67.59%	67.59%	67.59%	67.59%	67.59%	67.59%	67.40%
System Actual \$ - Sch 3 Fuel\$: System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance System Actual\$ - Sch 3 Fuel-related\$; SC DERP System Actual\$ - Sch 3 Fuel-related\$; SC ACT 62 (Solar Choice) System Acutal \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases  Total System Economic & QF\$	\$ 16,094,191 4,490,389 3,611,490 150,010 2,294,533 26,640,613	\$ 3,933,514 \$ 695,666 7,870,147 263,513 3,127,298	11,713,010 S 1,243,143 3,867,355 161,232 2,300,057	\$ 8,938,848 \$ 916,124 5,211,256 259,030 3,268,409	12,094,329 \$ 952,826 5,135,046 244,568 3,390,357 21,817,127	\$ 11,531,053 \$ 1,326,377 5,506,547 242,598 3,491,315 22,097,890	16,165,913 \$ 1,881,336 5,557,340 269,439 3,450,044 27,324,072	20,551,811 \$ 2,622,880 5,455,614 270,334 3,587,125	19,251,830 \$ 1,602,457 5,098,575 237,447 3,238,065	24,023,842 1,568,493 4,206,666 261,069 102,653 3,440,066	\$ 23,932,793 \$ 1,720,196 3,924,590 232,453 3,046 2,976,354	9,961,878 \$ 2,480,693 \$ 3,303,809 \$ 169,028 \$ 13,237 2,281,872 \$	178,193,012 21,500,580 58,748,435 2,760,721 36,845,496
Less: Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$ 12,596,278		11,669,944									9,378,130 \$	172,826,231
Total System Economic \$ without Native Load Transfers	\$ 14,044,335	\$ 13,697,957 \$	7,614,853 \$	9,855,850 \$	9,685,631 \$	10,505,245 \$	10,763,016 \$	10,818,306 \$	9,730,725 \$	9,890,346 \$	9,796,600 \$	8,819,150 \$	125,222,013
NC Actual \$ (Calc)	\$ 9,473,179	\$ 9,187,707 \$	5,110,642 \$	6,634,072 \$	6,430,730 \$	6,952,421 \$	7,102,145 \$	7,172,454 \$	6,528,982 \$	6,510,092 \$	6,637,189 \$	5,644,388 \$	83,384,001
Billed rate (¢/kWh):	0.1409	0.1409	0.1409	0.1409	0.1409	0.1409	0.1409	0.1409	0.1357	0.1409	0.1409	0.1409	
Billed \$:	\$ 7,463,993	\$ 6,553,270 \$	6,279,914 \$	6,177,719 \$	5,749,902 \$	6,545,024 \$	7,418,858 \$	8,096,983 \$	7,535,841 \$	6,247,484 \$	5,972,586 \$	6,721,949 \$	80,763,523
(Over)/ Under \$:	\$ 2,009,186	\$ 2,634,437 \$	(1,169,272) \$	456,353 \$	680,827 \$	407,397 \$	(316,713) \$	(924,529) \$	(1,006,859) \$	262,608 \$	664,603 \$	(1,077,561) \$	2,620,478
Capacity component of purchased power													
System Actual \$ - Capacity component of Cherokee County Cogen Purchases System Actual \$ - Capacity component of Purchased Power for REPS Compliance System Actual \$ - Capacity component of SC DERP System Actual \$ - Capacity component of 5589 PURPA Purchases System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$ - 563,042 14,465 350,921 \$ 928,428	\$ - \$ 1,526,511 25,269 371,971 \$ 1,923,752 \$	- \$ 652,726 15,564 360,503 1,028,793 \$	802,906 24,547 458,527	- \$ 714,202 24,652 390,711 1,129,564 \$	872,972 22,927 654,705	- \$ 2,529,735 26,605 1,628,121 4,184,461 \$	- \$ 2,398,512 26,529 1,569,122 3,994,163 \$	- \$ 2,301,403 23,759 1,497,533 3,822,694 \$	2,088,004 25,124 1,372,274 3,485,402 \$	565,199 22,450 539,208 1,126,858 \$	- \$ 525,161 \$ 16,201 \$ 350,819 \$ 892,181 \$	15,540,372 268,091 9,544,415 25,352,878
NC Actual \$ (Calc) (1)	\$ 619,088	\$ 1,282,782 \$	686,012 \$	857,507 \$	763,429 \$	1,047,993 \$	2,828,114 \$	2,699,499 \$	2,583,610 \$	2,355,647 \$	761,599 \$	602,990 \$	17,088,272
Billed rate (¢/kWh):	0.0297	0.0297	0.0297	0.0297	0.0297	0.0297	0.0297	0.0297	0.0280	0.0297	0.0297	0.0297	
Billed \$:	\$ 1,574,440	\$ 1,382,334 \$	1,324,673 \$	1,303,116 \$	1,212,873 \$	1,380,595 \$	1,564,920 \$	1,707,962 \$	1,557,210 \$	1,317,832 \$	1,259,846 \$	1,417,915 \$	17,003,717
(Over)/Under \$:	\$ (955,353)	\$ (99,552) \$	(638,661) \$	(445,609) \$	(449,445) \$	(332,602) \$	1,263,195 \$	991,537 \$	1,026,400 \$	1,037,815 \$	(498,247) \$	(814,925) \$	84,555
TOTAL (Over)/ Under \$:	\$ 1,053,833	\$ 2,534,886 \$	(1,807,932) \$	5 10,744 \$	231,383 \$	74,795 \$	946,481 \$	67,008 \$	19,541 \$	1,300,423 \$	166,356 \$	(1,892,486) \$	2,705,033

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

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test
Twelve Months Ended December 31, 2022
Docket E-7, Sub 1304

System kWh Sales - Sch 4, Adjusted NC Retail kWh Sales - Sch 4 NC Retail % of Sales, Actuals (Calc) NC Retail % of Sales, Adjusted (Calc)	7,	Jan-22 ,587,345,694 ,988,913,451 69.73% 65.75%	Feb-22 7,631,271,992 5,189,555,709 70.21% 68.00%	Mar-22 6,790,067,074 4,642,701,985 69.17% 68.37%	<b>Apr-22</b> 6,455,104,305 4,283,391,409 69.31% 66.36%	<b>May-22</b> 6,544,372,277 4,361,033,505 69.39% 66.64%	Jun-22 7,852,382,055 5,223,755,139 70.06% 66.52%	Jul-22 8,386,958,942 5,560,704,210 66.93% 66.30%	Aug-22 8,886,608,895 6,010,616,462 69.27% 67.64%	<b>Sep-22</b> 8,009,959,106 5,369,219,189 62.78% 67.03%	Oct-22 6,516,474,006 4,315,776,539 63.80% 66.23%	Nov-22 6,148,600,623 4,103,701,351 66.07% 66.74%	<b>Dec-22</b> 7,600,126,412 5,009,748,290 72.66% 65.92%	12 ME 88,409,271,381 59,059,117,240 68.21% 66.80%
NC retail production demand %		66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%	66.68%
Fuel and Fuel related component of purchased power														
System Actual \$ - Sch 3 Fuel\$: System Actual \$ - Sch 3 Fuel-related\$; Economic Purchases System Actual \$ - Sch 3 Fuel-related\$; Purchased Power for REPS Compliance System Actual\$ - Sch 3 Fuel-related\$; SC DERP System Acutal \$ - Sch 3 Fuel-related\$; HB589 purpa Purchases  Total System Economic & QF\$	\$	37,348,658 \$ 7,928,235 4,142,352 153,840 1,977,570  51,550,655	40,334,882 \$ (1,570,627) 3,490,134 153,265 1,777,710  44,185,364	28,936,616 \$ 3,557,135 3,995,856 196,932 2,215,962 38,902,502	49,553,437 \$ 4,369,558 3,290,332 137,675 1,745,571 59,096,573	53,977,979 \$ 7,286,679 5,192,821 248,854 2,647,918  69,354,250	76,187,119 \$ 6,129,379 5,283,840 297,053 3,816,224 91,713,615	84,243,384 \$ 10,685,578 5,430,924 290,834 3,554,345	92,288,328 \$ 9,921,881 5,998,047 285,229 3,225,136  111,718,622	54,398,279 \$ 9,510,435 5,270,163 257,994 3,434,693 72,871,564	11,798,321 \$ 1,184,100 5,163,446 240,417 3,359,816  21,746,101	41,689,819 \$ 3,142,043 4,802,114 248,173 3,414,696  53,296,844	94,911,581 \$ 8,875,341 \$ 4,257,583 \$ 229,623 \$ 2,956,940 \$	665,668,403 71,019,737 56,317,611 2,739,889 34,126,582
<u>Less:</u> Native Load Transfers, Native Load Transfer Benefit & DE - Progress fees	\$	30,480,569 \$	37,453,029 \$	26,486,545	48,026,753 \$	49,193,125 \$	74,564,244 \$	75,622,595 \$	87,008,500 \$	47,113,469 \$	10,577,023 \$	40,068,662 \$	74,950,979 \$	601,545,494
Total System Economic \$ without Native Load Transfers	\$	21,070,086 \$	6,732,335 \$	12,415,956 \$	11,069,820 \$	20,161,125 \$	17,149,371 \$	28,582,470 \$	24,710,121 \$	25,758,095 \$	11,169,078 \$	13,228,182 \$	36,280,089 \$	228,326,728
NC Actual \$ (Calc)	\$	13,854,230 \$	4,578,244 \$	8,489,398 \$	7,345,562 \$	13,434,954 \$	11,408,527 \$	18,950,690 \$	16,713,131 \$	17,266,113 \$	7,397,136 \$	8,828,758 \$	23,914,617 \$	152,181,363
Billed rate (¢/kWh):		0.1378	0.1378	0.1378	0.1378	0.1378	0.1378	0.1378	0.1378	0.1367	0.1378	0.1378	0.1378	
Billed \$:	\$	6,874,552 \$	7,151,030 \$	6,397,484 \$	5,902,367 \$	6,009,355 \$	7,198,156 \$	7,662,460 \$	8,282,423 \$	7,340,000 \$	5,946,992 \$	5,654,760 \$	6,903,261 \$	81,322,839
(Over)/ Under \$:	\$	6,979,678 \$	(2,572,786) \$	2,091,914 \$	1,443,196 \$	7,425,600 \$	4,210,372 \$	11,288,231 \$	8,430,708 \$	9,926,113 \$	1,450,144 \$	3,173,998 \$	17,011,356 \$	70,858,524
Capacity component of purchased power														
System Actual \$ - Capacity component of Cherokee County Cogen Purchases	\$	- \$	(215,310) \$	- \$	•	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	(215,310)
System Actual \$ - Capacity component of Purchased Power for REPS Compliance System Actual \$ - Capacity component of HB589 Purpa QF purchases		631,201 14,255	645,219 14,801	680,737 19,366	463,766 14,471	802,115 24,039	701,461 29,036	827,443 28,404	2,753,196 28,368	2,319,960 25,409	2,511,631 23,627	2,238,491 24,299	639,202 \$ 22,399 \$	15,214,422 268,474
System Actual \$ - Capacity component of SC DERP		312,476	340,840	349,198	316,395	389,774	481,428	581,279	1,661,830	1,443,022	1,553,118	1,525,519	414,939 \$	9,369,818
System Actual \$ - Sch 2 pg 1 ANNUAL VIEW	\$	957,932 \$	785,549 \$	1,049,301 \$	794,633 \$	1,215,927 \$	1,211,925 \$	1,437,127 \$	4,443,394 \$	3,788,390 \$	4,088,375 \$	3,788,310 \$	1,076,540 \$	24,637,403
NC Actual \$ (Calc) (1)	\$	638,761 \$	523,814 \$	699,688 \$	529,871 \$	810,796 \$	808,127 \$	958,294 \$	2,962,912 \$	2,526,147 \$	2,726,181 \$	2,526,093 \$	717,850 \$	16,428,536
Billed rate (¢/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 \$:	\$	1,390,793 \$	1,446,727 \$	1,294,277 \$	1,194,110 \$	1,215,755 \$	1,456,261 \$	1,550,195 \$	1,675,620 \$	1,525,438 \$	1,203,138 \$	1,144,016 \$	1,396,601 \$	16,492,931
(Over)/Under \$:	\$	(752,032) \$	(922,913) \$	(594,589) \$	(664,238) \$	(404,959) \$	(648,134) \$	(591,900) \$	1,287,293 \$	1,000,709 \$	1,523,043 \$	1,382,077 \$	(678,752) \$	(64,395)
TOTAL (Over)/ Under \$:	\$	6,227,647 \$	(3,495,699) \$	1,497,325 \$	778,957 \$	7,020,641 \$	3,562,238 \$	10,696,330 \$	9,718,001 \$	10,926,822 \$	2,973,187 \$	4,556,076 \$	16,332,604 _\$	70,794,129

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

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Actual Sales by Jursidiction - Subject to Weather
Twelve Months Ended December 31, 2023
Docket E-7, Sub 1304

Clark Workpaper 10

		-		MWhs			
Line <u>#</u>	<u>Description</u>	<u>Reference</u>	NORTH <u>CAROLINA</u>	SOUTH <u>CAROLINA</u>	TOTAL <u>COMPANY</u>	<u>% NC</u>	<u>% SC</u>
1	Residential	Company Records	21,544,402	6,701,513	28,245,915	76.27	23.73
2	Total General Service less Lighting and Traffic Signals	Company Records	24,310,321 558,737	5,910,025 170,306	30,220,346 729,044		
4	General Service subject to weather	-	23,751,583	5,739,719	29,491,302	80.54	19.46
5	Industrial	Company Records	11,674,957	8,037,528	19,712,485	59.23	40.77
6 7	Total Retail Sales Total Retail Sales subject to weather	1+2+5 1+4+5	57,529,680 56,970,943	20,649,066 20,478,760	78,178,746 77,449,703	73.56	26.44

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, 2023
Docket E-7, Sub 1304

Clark Workpaper 11
Page 1

			Total	NC RETAIL		SC RETAIL	
Line			Company	% To		% To	
#	Description	REFERENCE	MWh	Total	MWh	Total	MWh
	<u>Residential</u>						
1	Total Residential		1,372,504	76.27	1,046,809	23.73	325,695
	General Service						
2	Total General Service		258,325	80.54	208,055	19.46	50,270
	<u>Industrial</u>						
3	Total Industrial		28,978	59.23	17,164	40.77	11,814
4	Total Retail	L1+ L2+ L3	1,659,807		1,272,028		387,779
							·
5	Wholesale		96,670				
			,				
6	Total Company	L4 + L5	1,756,476		1,272,028		387,779
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Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Weather Normalization Adjustment by Class by Month
Twelve Months Ended December 31, 2023
Docket E-7, Sub 1304

Clark Workpaper 11 Page 2

	Residential	Commercial	Industrial
	TOTAL MWH	TOTAL MWH	TOTAL MWH
2023	ADJUSTMENT	ADJUSTMENT	ADJUSTMENT
JAN	3,252	174	63
FEB	448,879	57,747	(3,691)
MAR	510,625	61,216	(232)
APR	(2,771)	(13,121)	(2,366)
MAY	(17,315)	504	97
JUN	195,771	81,420	18,779
JUL	238,738	97,595	24,057
AUG	39,565	14,459	2,857
SEP	(78,495)	(33,878)	(5,882)
OCT	6,510	9,725	2,870
NOV	(43,933)	(16,036)	(3,982)
DEC	71,678	(1,480)	(3,592)
Total	1,372,504	258,325	28,978

1,659,807

## Wholesale

2023	TOTAL MWH ADJUSTMENT	Note:	The Resale customers include:
JAN	30,698	1	Concord <sup>1</sup>
FEB	28,349	2	Dallas
MAR	9,055	3	Forest City
APR	4	4	Kings Mountain <sup>1</sup>
MAY	6,787	5	Due West
JUN	16,729	6	Prosperity <sup>2</sup>
JUL	(4,162)	7	Lockhart
AUG	(4,297)	8	Western Carolina University
SEP	886	9	City of Highlands
OCT	1,185	10	Haywood
NOV	(2,457)	11	Piedmont
DEC	13,892	12	Rutherford
		13	Blue Ridge
Total	96,670	14	Greenwood <sup>1</sup>

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

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

Duke Energy Carolinas, LLC
North Carolina Annual Fuel and Fuel Related Expense
Customer Growth Adjustment to kWh Sales
Twelve Months Ended December 31, 2023
Docket E-7, Sub 1304

Clark Workpaper 12 Page 1

			NC	SC	Wholesale	
			Proposed kWh <sup>1</sup>	Proposed kWh	Proposed kWh	
<u>Line</u>	Estimation Method <sup>1</sup>	<u>Rate Schedule</u>	Adjustment	Adjustment	Adjustment	Total Company
1	Regression	Residential	216,090,295	85,430,235		
2						
3		General Service (Excluding Lighting):				
4	Customer	General Service Small and Large	(44,006,237)	38,784,745		
5	Regression	Miscellaneous	(1,237,688)	(879,613)		
6		Total General	(45,243,925)	37,905,132		
7						
8		Lighting:				
9	Regression	T & T2 (GL/FL/PL/OL) <sup>2</sup>	901,291	513,822		
10	Regression	TS	(783)	9,422		
11		Total Lighting	900,508	523,244		
12						
13		Industrial:				
14	Customer	I - Textile	(6,516,599)	382,943		
15	Customer	I - Nontextile	18,827,765	6,991,721		
16		Total Industrial	12,311,166	7,374,664		
17						
18						
19		Total	184,058,044	131,233,275	89,189,968 WP 12-2	404,481,28

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

<sup>&</sup>quot;Regression" refers to the use of Ordinary Least Squares Regression

<sup>&</sup>quot;Customer" refers to the use of the Customer by Customer approach.

<sup>&</sup>lt;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, 2023
Docket E-7, Sub 1304

rounding differences may occur

Clark Workpaper 12 Page 2

Calculation of Customer Growth Adjustment to kWh Sales - Wholesale

Line <u>No.</u>		<u>Reference</u>	
1	Total System Resale (kWh Sales)	Company Records	9,787,128,802
2	Less Intersystem Sales	Exhibit 6, Sch 1	1,431,968,808
3	Total kWh Sales Excluding Intersystem Sales	L1 - L2	8,355,159,994
4	Residential Growth Factor	Line 8	1.0675
5	Adjustment to kWhs - Wholesale	L3 * L4 / 100	89,189,968
6	Total System Retail Residential kWh Sales	Company Records	28,245,915,203
7	2023 Proposed Adjustment kWh - Residential (NC+SC)	WP 12-1	301,520,530
8	Percent Adjustment	L7 / L6 * 100	1.0675

## **CERTIFICATE OF SERVICE**

I certify that a copy of Duke Energy Carolinas, LLC's Supplemental Testimony and Exhibits, in Docket No. E-7, Sub 1304, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the parties of record.

This the 8<sup>th</sup> day of May, 2024.

Ladawn S. Toon

Associate General Counsel Duke Energy Corporation P.O. Box 1551/NCRH 20 Raleigh, North Carolina 27602

Jadun Stow

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