

DUKE ENERGY PROGRESS, LLC
 North Carolina Annual Fuel and Fuel Related Expense
 Proposed Nuclear Capacity Factor
 Billing Period December 1, 2023 - November 30, 2024
 Docket No. E-2, Sub 1321

Harrington Workpaper 1

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs	7,377,502	7,864,560	7,711,865	6,168,179	29,122,107
Cost	\$ 47,277,805	\$ 49,458,984	\$ 44,350,770	\$ 36,922,363	\$ 178,009,922
\$/MWhs	\$ 6.41	\$ 6.29	\$ 5.75	\$ 5.99	
Avg. \$/MWhs					\$ 6.11
Cents per kWh					0.6113

	Capacity Rating			Proposed Nuclear Capacity Factor
	GWs	MDC	Hours	
Brunswick 1	7,378	938	8,784	89.54%
Brunswick 2	7,865	932	8,784	96.07%
Harris 1	7,712	964	8,784	91.07%
Robinson 1	6,168	759	8,784	92.52%
	29,122	3,593	8,784	92.27%

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
NERC 5 Year Average Nuclear Capacity Factor
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 2

	Brunswick 1	Brunswick 2	Harris 1	Robinson 1	Total
MWhs with NERC applied	7,828,246	7,778,172	7,875,032	6,160,360	29,641,810
Hours in Year	8,784	8,784	8,784	8,784	8,784
MDC	938	932	964	759	3,593
Capacity Factor-NERC 5yr Avg	0.9501	0.9501	0.9300	0.9240	
Cost (\$)	\$ 47,850,436	\$ 47,544,357	\$ 48,136,413	\$ 37,655,420	\$ 181,186,626
\$/MWhs	\$ 6.11	\$ 6.11	\$ 6.11	\$ 6.11	
Avg. \$/MWhs					\$ 6.11
Cents per kWh					0.6113

	Capacity Rating	NCF Rating	Weighted Average
	MDC		
Brunswick 1	938	95.01%	24.80%
Brunswick 2	932	95.01%	24.64%
Harris 1	964	93.00%	24.95%
Robinson 1	759	92.40%	19.52%
	<u>3,593</u>		<u>93.92%</u>

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
North Carolina Generation in MWhs
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 3

Resource Type	MWh	
	Dec'23-Nov'24	
Nuclear		29,122,107
Coal		6,229,316
Gas CT and CC Total		24,747,254
Total Hydro		720,836
Utility Owned Solar Generation		270,472
Total Net Generation		<u>61,089,985</u>
Purchases for REPS Compliance	2,069,574	
Purchases from Qualifying Facilities	5,269,962	
Purchases from Dispatchable Units	3,506,560	
Emergency & DSM Purchases	1,503	
Allocated Economic Purchases	508,928	
Joint Dispatch Fuel Transfer Purchases	572,071	11,928,598
Total Net Generation and Purchases		<u>73,018,583</u>
Sales Totals (intersystem sales)	(120,510)	
Fuel Transfer Sales (JDA & economic sales)	(7,480,510)	(7,601,020)
Line Losses and Company Use		(2,185,868)
Total NC System Sales at Meter		63,231,695

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Fuel Costs (\$)
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 4

Resource Type	Costs \$	
	Dec'23-Nov'24	
Nuclear	\$	178,009,922
Coal		269,486,511
Reagent and By-Product Costs		43,993,340
Gas CT and CC Total		934,531,959
Total Hydro		-
Utility Owned Solar Generation		-
Total Generation Costs		<u>1,426,021,732</u>
Purchases for REPS Compliance Energy	\$	108,673,227
Purchases for REPS Compliance Capacity		21,846,114
Purchases from Qualifying Facilities Energy		228,895,936
Purchases from Qualifying Facilities Capacity		46,899,456
Purchases from Dispatchable Units Energy		122,200,054
Emergency & DSM Purchases		43,522
Allocated Economic Purchases		21,072,752
Joint Dispatch Fuel Transfer Purchases		14,148,045
Joint Dispatch Savings	(114,205,606)	\$ 449,573,499
Total Net Generation and Purchases		<u>1,875,595,231</u>
Sales Totals (intersystem sales)	\$	(4,257,413)
Fuel Transfer Sales (JDA & economic sales)		(204,822,948)
Total System Fuel and Related Expenses	\$	<u>1,670,772,283</u>

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Reagents (\$)
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 5

Month	Year	Ammonia/ Urea	Lime, Hydrated Lime & Limestone	Limestone Off-System Sales	Magnesium Hydroxide	Calcium Carbonate	Total NC System Reagent Cost	Gypsum (Gain)/Loss	Ash (Gain)/Loss	Total NC System Reagent Cost and ByProduct (Gain)/Loss
December	2023	\$ 525,144	\$ 987,773	\$ (183,074)	\$ 278,929	\$ 135,400	\$ 1,744,171	\$ (36,371)	\$ 1,807,571	\$ 3,515,371
January	2024	699,485	1,362,931	(233,037)	361,688	182,462	2,373,528	(93,197)	1,487,498	3,767,829
February	2024	521,430	1,002,013	(243,305)	266,710	136,422	1,683,269	8,345,859	2,255,040	12,284,168
March	2024	393,175	749,119	(52,755)	177,217	90,207	1,356,963	(44,019)	1,472,257	2,785,201
April	2024	109,961	211,025	(20,803)	79,253	28,185	407,622	(1,608)	2,266,830	2,672,844
May	2024	48,575	104,426	(13,614)	39,545	13,272	192,203	-	1,518,698	1,710,901
June	2024	383,617	703,940	(31,492)	226,104	98,279	1,380,448	(5,570)	2,324,732	3,699,609
July	2024	650,001	1,156,214	(66,836)	350,280	168,587	2,258,246	(40,835)	1,482,978	3,700,389
August	2024	568,876	987,020	(50,521)	314,773	145,364	1,965,512	(15,576)	1,789,181	3,739,117
September	2024	149,328	256,381	(10,261)	97,402	37,652	530,502	(167)	1,419,530	1,949,866
October	2024	9,409	10,763	-	5,117	2,430	27,719	-	1,750,943	1,778,661
November	2024	244,379	410,022	(1,044)	119,347	61,890	834,593	(1,827)	1,556,619	2,389,385
12ME Nov	2024	\$ 4,303,379	\$ 7,941,627	\$ (906,742)	\$ 2,316,364	\$ 1,100,149	\$ 14,754,777	\$ 8,106,689	\$ 21,131,874	\$ 43,993,340

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Fuel Impacts
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 6

		Positive numbers represent expense, Negative numbers represent revenues							
Month	Year	Allocated Economic Purchase Cost		Economic Sales Cost		Fuel Transfer Payment		JDA Savings Payment	
		DEP	DEC	DEP	DEC	DEP	DEC	DEP	DEC
December	2023	\$ 1,234,637	\$ 1,823,317	\$ (6,565,637)	\$ (1,577,591)	\$ (17,362,556)	\$ 17,362,556	\$ (3,700,688)	\$ 3,700,688
January	2024	2,710,394	3,918,202	(8,902,259)	(9,199,451)	(13,075,319)	13,075,319	(12,308,043)	12,308,043
February	2024	461,528	678,216	(9,119,170)	(9,695,477)	(10,474,496)	10,474,496	(3,083,001)	3,083,001
March	2024	702,147	1,012,669	(1,229,751)	(615,762)	(3,371,359)	3,371,359	449,444	(449,444)
April	2024	3,424,152	3,700,357	(1,189,893)	(487,140)	(7,303,371)	7,303,371	(5,056,429)	5,056,429
May	2024	635,825	962,431	(1,571,140)	(465,036)	(11,184,244)	11,184,244	(3,536,847)	3,536,847
June	2024	2,825,707	4,022,008	(1,028,743)	(521,349)	(14,844,982)	14,844,982	(12,855,914)	12,855,914
July	2024	1,281,574	928,342	(3,381,926)	(2,371,343)	(16,781,326)	16,781,326	(35,473,683)	35,473,683
August	2024	829,726	1,194,776	(2,611,213)	(1,983,996)	(15,390,154)	15,390,154	(13,148,211)	13,148,211
September	2024	3,024,111	4,493,332	(613,751)	(130,572)	(21,475,832)	21,475,832	(18,659,035)	18,659,035
October	2024	1,524,921	2,227,353	(393,476)	(264,792)	(8,300,764)	8,300,764	(4,072,141)	4,072,141
November	2024	2,418,030	3,532,720	(415,016)	(266,866)	(9,831,113)	9,831,113	(2,761,058)	2,761,058
Total		\$ 21,072,752		\$ (37,021,974)		\$ (149,395,515)		\$ (114,205,606)	

Note: Totals may not sum due to rounding

		Fuel Transfer Payments	
		Purchases	Sales
December	2023	\$ 265,028	\$ 17,627,583
January	2024	350,028	13,425,347
February	2024	499,850	10,974,346
March	2024	5,627,246	8,998,605
April	2024	1,615,378	8,918,750
May	2024	1,106,424	12,290,668
June	2024	732,110	15,577,092
July	2024	608,571	17,389,897
August	2024	409,076	15,799,230
September	2024	250,678	21,726,510
October	2024	1,522,438	9,823,202
November	2024	1,161,217	10,992,330
		\$ 14,148,045	\$ 163,543,561
			\$ (149,395,515)

Jun 13 2023

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Merger Payments
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 7

Month	Year	MWh Transfer Projection		MWh Purchase Allocation Delta		Adjusted MWh Transfer		Fossil Gen Cost \$/MWh		Pre-Net Payments \$		Actual Payments \$	
		DEP to DEC	DEC to DEP	DEP	DEC	DEP to DEC	DEC to DEP	DEP	DEC	DEP to DEC	DEC to DEP	DEP to DEC	DEC to DEP
December	2023	668,931	8,104	(1,330)	1,330	668,931	9,435	\$ 26.35	\$ 28.09	\$ 265,028	\$ 17,627,583	\$ -	\$ 17,362,556
January	2024	440,541	10,654	7,184	(7,184)	447,724	10,654	\$ 29.99	\$ 32.85	350,028	13,425,347	-	13,075,319
February	2024	372,757	14,658	(2,015)	2,015	372,757	16,673	\$ 29.44	\$ 29.98	499,850	10,974,346	-	10,474,496
March	2024	320,748	229,436	(1,388)	1,388	320,748	230,824	\$ 28.06	\$ 24.38	5,627,246	8,998,605	-	3,371,359
April	2024	368,059	68,107	26,423	(26,423)	394,482	68,107	\$ 22.61	\$ 23.72	1,615,378	8,918,750	-	7,303,371
May	2024	599,170	44,714	3,506	(3,506)	602,676	44,714	\$ 20.39	\$ 24.74	1,106,424	12,290,668	-	11,184,244
June	2024	565,913	29,299	58,422	(58,422)	624,334	29,299	\$ 24.95	\$ 24.99	732,110	15,577,092	-	14,844,982
July	2024	613,464	22,701	16,901	(16,901)	630,366	22,701	\$ 27.59	\$ 26.81	608,571	17,389,897	-	16,781,326
August	2024	552,420	15,664	23,912	(23,912)	576,332	15,664	\$ 27.41	\$ 26.11	409,076	15,799,230	-	15,390,154
September	2024	921,011	11,044	76,147	(76,147)	997,158	11,044	\$ 21.79	\$ 22.70	250,678	21,726,510	-	21,475,832
October	2024	572,997	69,660	16,188	(16,188)	589,185	69,660	\$ 16.67	\$ 21.86	1,522,438	9,823,202	-	8,300,764
November	2024	460,604	43,295	3,477	(3,477)	464,081	43,295	\$ 23.69	\$ 26.82	1,161,217	10,992,330	-	9,831,113
Total		6,456,616	567,338	227,425	(227,425)	6,688,775	572,071			\$ 14,148,045	\$ 163,543,561	\$ -	\$ 149,395,515

Note: Totals may not sum due to rounding

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Projected Billing Period MWh Sales at Meter and at Generation
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 8

	Projected Sales MWhs at Meter	Remove impact of SC DERP Net Metered MWhs	Adjusted Projected Sales MWhs at Meter	2022 Cost of Service Line Loss Factors	Adjusted Projected Sales MWhs at Generation
NC Retail					
Residential	17,326,377		17,326,377	2.505%	17,771,554
Small General Service	1,816,847		1,816,847	2.503%	1,863,491
Medium General Service	10,471,370		10,471,370	2.437%	10,732,932
Large General Service	9,239,420		9,239,420	2.083%	9,435,971
Lighting	384,646		384,646	2.489%	394,465
NC Retail	39,238,661		39,238,661		40,198,412
SC Retail	6,284,478	33,600	6,318,078	2.299%	6,466,748
Total Wholesale	17,708,557		17,708,557	1.594%	17,995,404
Total Adjusted NC System Sales	63,231,695	33,600	63,265,295		64,660,564
NC as a percentage of total	62.06%		62.02%		62.17%
SC as a percentage of total	9.94%		9.99%		10.00%
Wholesale as a percentage of total	28.01%		27.99%		27.83%
SC Net Metering allocation adjustment					
Total Projected SC NEM MWhs	33,600				
Marginal Fuel rate per MWh for SC NEM	\$ 25.34				
Fuel Benefit to be directly assigned to SC	\$ 851,357				
System Fuel Expense	\$ 1,670,772,283	Exh 2A			
Fuel benefit to be directly assigned to SC Retail	851,357				
Total Adjusted System Fuel Expense	\$ 1,671,623,640	Exh 2C			

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Normalized MWh Sales at Meter and at Generation
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 9

	Test Period Sales MWhs	Weather Normalization	Customer Growth	Remove impact of SC DERP Net Metered MWhs	Normalized Test Period Sales MWhs at Meter	2022 Cost of Service Line Loss Factors	Normalized Test Period Sales MWhs at Generation
NC Retail							
Residential	16,034,936	522,669	168,316		16,725,921	2.505%	17,155,671
Small General Service	1,908,360	405	23,647		1,932,412	2.503%	1,982,022
Medium General Service	10,766,603	(5,219)	(103,732)		10,657,652	2.437%	10,923,866
Large General Service	8,519,137	(24,179)	(8,961)		8,485,997	2.083%	8,666,521
Lighting	341,557	0	730		342,287	2.489%	351,024
NC Retail	37,570,593	493,676	80,000		38,144,269		39,079,104
SC Retail	6,002,714	56,330	(16,806)	33,600	6,075,838	2.299%	6,218,809
Total Wholesale	17,322,560	348,661	169,320		17,840,541	1.594%	18,129,526
Total Adjusted NC System Sales	60,895,867	898,668	232,513	33,600	62,060,648		63,427,438
NC as a percentage of total	61.70%				61.46%		61.61%
SC as a percentage of total	9.86%				9.79%		9.80%
Wholesale as a percentage of total	28.45%				28.75%		28.58%

SC Net Metering allocation adjustment

Total Projected SC NEM MWhs	33,600	
Marginal Fuel rate per MWh for SC NEM	\$ 25.34	
Fuel Benefit to be directly assigned to SC	\$ 851,357	
System Fuel Expense	\$ 1,618,298,926	Exh 6A
Fuel benefit to be directly assigned to SC Retail	851,357	
Total Adjusted System Fuel Expense	\$ 1,619,150,283	Exh 6C

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Weather Adjustment - MWh
Twelve Months Ended March 31, 2023
Docket No. E-2, Sub 1321

Harrington Workpaper 9a

		Residential MWH Adjustment	Small Gen Service MWH Adjustment	Medium Gen Service MWH Adjustment	Large Gen Service MWH Adjustment	NC Retail MWH Adjustment	SC Retail MWH Adjustment	Wholesale MWH Adjustment	Total MWH Adjustment
April	2022	12,415	(633)	(3,377)	(1,975)	6,430	446	-	6,876
May	2022	(54,437)	(2,313)	(11,888)	(5,656)	(74,294)	(10,469)	(92,567)	(177,330)
June	2022	(129,601)	(6,225)	(31,788)	(14,864)	(182,478)	(24,713)	(78,356)	(285,548)
July	2022	(24,282)	(821)	(4,147)	(1,693)	(30,943)	(4,409)	(62,033)	(97,385)
August	2022	(59,063)	(2,349)	(12,366)	(6,675)	(80,453)	(10,845)	(35,456)	(126,754)
September	2022	(36,790)	(1,793)	(9,299)	(4,576)	(52,458)	(7,602)	(33,732)	(93,792)
October	2022	8,128	1,337	7,057	4,481	21,004	2,857	72,193	96,053
November	2022	31,359	(595)	(2,885)	(1,292)	26,586	3,095	61,891	91,572
December	2022	82,151	334	1,248	(1,026)	82,707	10,318	(37,420)	55,604
January	2023	48,335	978	4,474	536	54,324	7,049	271,926	333,299
February	2023	376,789	7,423	34,273	4,918	423,403	54,402	218,578	696,383
March	2023	267,665	5,061	23,480	3,643	299,849	36,203	63,638	399,690
12ME March	2023	522,669	405	(5,219)	(24,179)	493,676	56,330	348,661	898,668

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Customer Growth Adjustment - MWh
Twelve Months Ended March 31, 2023
Docket No. E-2, Sub 1321

Harrington Workpaper 9b

Rate Schedule	Estimation Method ¹	Reference	NC Proposed MWH Adjustment ¹	SC Proposed MWH Adjustment ¹	Wholesale Proposed MWH Adjustment
Residential	Regression	RES	168,316	8,111	
General:					
General Service Small	Regression	SGS	23,647	1,393	
General Service Medium	Customer	MGS	(103,732)	(5,360)	
Total General			<u>(80,085)</u>	<u>(3,966)</u>	
Lighting:					
Street Lighting	Regression	SLS/SLR	711	29	
Sports Field Lighting	Regression	SFLS	16	-	
Traffic Signal Service	Regression	TSS/TFS	3	(7)	
Total Street Lighting			<u>730</u>	<u>22</u>	
Industrial:					
I - Textile	Customer	LGS	-	-	
I - Nontextile		LGS	(8,961)	(20,973)	
Total Industrial			<u>(8,961)</u>	<u>(20,973)</u>	
Total			<u>80,000</u>	<u>(16,806)</u>	<u>169,320</u>

Note:

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

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

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

²Using the regression method (Residential, Lighting, SGS classes) and a customer by customer method for MGS and Industrial

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Projected MWh Sales at Meter and Generation - NERC 5 year Average
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 10

	Projected Sales MWhs at Meter	Remove impact of SC DERP Net Metered MWhs	Adjusted Projected Sales MWhs at Meter	2022 Cost of Service Line Loss Factors	Adjusted Projected Sales MWhs at Generation
NC Retail					
Residential	17,326,377		17,326,377	2.505%	17,771,554
Small General Service	1,816,847		1,816,847	2.503%	1,863,491
Medium General Service	10,471,370		10,471,370	2.437%	10,732,932
Large General Service	9,239,420		9,239,420	2.083%	9,435,971
Lighting	384,646		384,646	2.489%	394,465
NC Retail	39,238,661		39,238,661		40,198,412
SC Retail	6,284,478	33,600	6,318,078	2.299%	6,466,748
Total Wholesale	17,708,557		17,708,557	1.594%	17,995,404
Total Adjusted NC System Sales	63,231,695	33,600	63,265,295		64,660,564

NC as a percentage of total	62.06%		62.02%		62.17%
SC as a percentage of total	9.94%		9.99%		10.00%
Wholesale as a percentage of total	28.01%		27.99%		27.83%

SC Net Metering allocation adjustment

Total Projected SC NEM MWhs	33,600	
Marginal Fuel rate per MWh for SC NEM	\$ 25.34	
Fuel Benefit to be directly assigned to SC	\$ 851,357	
System Fuel Expense	\$ 1,651,466,105	Exh 7A
Fuel benefit to be directly assigned to SC Retail	851,357	
Total Adjusted System Fuel Expense	\$ 1,652,317,462	Exh 7C

Generator Step Up Loss % **0.1863%**

	KWh at Meter	KWh at Meter Allocation	KWh at Generation (high side of GSU)	kWh at Generation Allocation	Losses
NC RES	15,976,054,799	26.11%	16,345,805,335	26.20%	369,750,536
NC RES-TOU	383,543,385	0.63%	392,420,131	0.63%	8,876,745
NC SGS	1,865,006,873	3.05%	1,908,129,501	3.06%	43,122,628
NC SGS-CLR	51,330,516	0.08%	52,518,198	0.08%	1,187,682
NC MGS-TOU	7,809,544,914	12.76%	7,984,230,957	12.80%	174,686,043
NC MGS	2,717,094,559	4.44%	2,778,922,760	4.45%	61,828,200
NC SI	41,024,628	0.07%	41,908,539	0.07%	883,911
NC LGS	978,971,351	1.60%	999,153,948	1.60%	20,182,597
NC LGS-TOU	1,844,412,705	3.01%	1,881,044,827	3.02%	36,632,122
NC LGS-RTP	5,438,202,332	8.89%	5,537,734,684	8.88%	99,532,352
NC TSS	4,331,008	0.01%	4,431,245	0.01%	100,237
NC ALS	243,830,543	0.40%	249,423,811	0.40%	5,593,268
NC SLS	84,397,795	0.14%	86,351,102	0.14%	1,953,306
NC SFLS	1,500,922	0.00%	1,531,208	0.00%	30,285
Total NCR	37,439,246,332	61.19%	38,263,606,246	61.33%	824,359,914
NCWHS incl.					
NCEMPA	17,771,262,650	29.04%	18,021,199,919	28.89%	249,937,269
Total NC	55,210,508,983	90.23%	56,284,806,165	90.22%	1,074,297,183
SC RES	2,011,492,983	3.29%	2,058,047,067	3.30%	46,554,085
SC RES-TOU	31,032,172	0.05%	31,750,382	0.05%	718,210
SC SGS	246,932,621	0.40%	252,635,251	0.40%	5,702,630
SC SGS-CLR	5,866,842	0.01%	6,002,593	0.01%	135,751
SC MGS-TOU	1,042,954,747	1.70%	1,066,207,787	1.71%	23,253,039
SC MGS	505,964,162	0.83%	517,358,233	0.83%	11,394,071
SC SI	17,957,542	0.03%	18,347,115	0.03%	389,573
SC LGS	459,678,226	0.75%	469,092,721	0.75%	9,414,495
SC LGS-TOU	261,197,320	0.43%	265,931,672	0.43%	4,734,352
SC LGS-CRTL-TOU	670,335,735	1.10%	681,350,985	1.09%	11,015,250
SC LGS-RTP	647,358,082	1.06%	658,348,451	1.06%	10,990,369
SC TSS	1,934,090	0.00%	1,978,852	0.00%	44,763
SC ALS	56,828,988	0.09%	58,126,692	0.09%	1,297,704
SC SLS	15,145,023	0.02%	15,495,541	0.02%	350,517
SC SFLS	181,583	0.00%	185,247	0.00%	3,664
Total SCR	5,974,860,116	9.77%	6,100,858,589	9.78%	125,998,473
SCWHS		0.00%		0.00%	0
Total SC	5,974,860,116	9.77%	6,100,858,589	9.78%	125,998,473
Total System	61,185,369,099	100.00%	62,385,664,754	100.00%	1,200,295,655

Cost of Service Data Summarized				
	kWh @ Meter	kWh @ Generator	Losses (kWh)	Loss Percent
Residential	16,359,598,185	16,769,474,812	409,876,627	2.5050%
SGS	1,920,668,398	1,968,747,639	48,079,241	2.5030%
MGS	10,567,664,101	10,825,234,713	257,570,612	2.4370%
LGS	8,261,586,387	8,433,649,277	172,062,890	2.0830%
Lighting	329,729,261	337,935,853	8,206,592	2.4890%
Total NC Retail	37,439,246,332	38,335,042,294	895,795,961	2.3930%
Total NC Retail	37,439,246,332	38,335,042,294	895,795,961	2.3930%
SC Retail	5,974,860,116	6,112,248,556	137,388,440	2.2990%
12ME NEM Generation	32,273,392	33,015,357	741,965	2.2990%
Total SC Retail	6,007,133,508	6,145,263,913	138,130,405	2.2990%
Wholesale	17,738,989,258	18,021,829,151	282,839,893	1.5940%
Total System	61,185,369,099	62,502,135,358	1,316,766,259	2.1520%

Line Loss Calculations for Projected

Fuel Costs	MWh @ Meter	MWh @ Generator
Residential	17,326,377	17,771,554
SGS	1,816,847	1,863,491
MGS	10,471,370	10,732,932
LGS	9,239,420	9,435,971
Lighting	384,646	394,465
Total NC Retail	39,238,661	40,198,412
Total SC Retail	6,318,078	6,466,748
Wholesale	17,708,557	17,995,404
Total System	63,265,295	64,660,564
Allocation percent - NC retail	62.02%	62.17% Scenario 1, Scenario 3, WP 15

Line Loss Calculations for

Normalized Test Period Sales	MWh @ Meter	MWh @ Generator
Residential	16,725,921	17,155,671
SGS	1,932,412	1,982,022
MGS	10,657,652	10,923,866
LGS	8,485,997	8,666,521
Lighting	342,287	351,024
Total NC Retail	38,144,269	39,079,104
Total SC Retail	6,075,838	6,218,809
Wholesale	17,840,541	18,129,526
Total System	62,060,648	63,427,438
Allocation percent - NC retail	61.46%	61.61% Scenario 2, WP 16

DUKE ENERGY PROGRESS, LLC
 North Carolina Annual Fuel and Fuel Related Expense
 Derivation of Equal Percent Increases for all Rate Classes
 Annualized Revenues at Current Rates
 Twelve Months Ended March 31, 2023
 Docket No. E-2, Sub 1321

Harrington Workpaper 12

North Carolina Retail Fuel Clause Customer Classes	February 2023		February 2023		12ME March 2023		Total Annualized Revenues	Cust Class Contribution
	Monthly Revenue	Monthly kWh Sales	Cents/ kWh	12ME Billed kWh Sales	(c) * (d) / 100			
	(a)	(b)	(a)/(b) *100 = (c)	(d)				
Residential	\$ 175,043,253	1,345,286,284	13.0116	16,034,935,864	\$ 2,086,401,509	51%		
Small General Service	21,334,569	145,546,716	14.6582	1,908,359,732	279,731,721	7%		
Medium General Service	70,147,644	756,940,707	9.2673	10,766,603,059	997,768,827	25%		
Large General Service	45,780,304	664,580,619	6.8886	8,519,137,298	586,849,332	14%		
Lighting	8,818,319	26,337,752	33.4817	341,556,885	114,358,945	3%		
Total	\$ 321,124,089	2,938,692,079		37,570,592,838	\$ 4,065,110,334	100%		

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2022 Production Plant Allocation Factors
Docket No. E-2, Sub 1321

Harrington Workpaper 13

2022 Total Production Plant	System	NC Retail	Residential	Small GS	Med GS	Lrg GS	Ltg
All - Production Plant	18,243,933	11,156,635	6,041,549	666,619	2,809,844	1,638,623	-
NC Retail % to Total System		61.15%	33.12%	3.65%	15.40%	8.98%	0.00%
Allocation of Classes to Total NC Retail		100.00%	54.15%	5.98%	25.19%	14.69%	0.00%

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
Scenario Differences
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 14

Line Loss

Line Losses & Company Use	Exh 2A	(2,185,868)
Generation	Exh 2A	61,089,985
	%	-3.578%
	Multiplier	1.035781

Proposed Nuclear Capacity Factor & Normalized Sales

Normalized Sales at Meter	Exh 4	62,060,648
Projected Billing Period Sales at Meter	Exh 2A	63,231,695
Difference		(1,171,047)
Gross up for losses	Difference x Multiplier	(1,212,948)
	MWh changes in Coal	(1,212,948)
	MWH changes in Losses	41,901

	Before Adj	Adj	Total
Total Coal MWh	6,229,316	(1,212,948)	5,016,368
Total Losses MWh	(2,185,868)	41,901	(2,143,966)
	4,043,448	(1,171,047)	2,872,402

	Before Adj	After Adj	Adjustment
Total Coal \$	\$ 269,486,511	\$ 217,013,154	\$ (52,473,357)

NERC 5 year average Capacity Factor & Projected Sales

		Nuclear-MWHs	Nuclear Costs
Nuclear	WP 1	29,122,107	\$ 178,009,922
Nuclear - NERC Average	WP 2	29,641,810	181,186,626
	Adjustment	519,703	\$ 3,176,704
		Coal-MWH	Coal Costs
Coal MWh	WP 3, WP4	6,229,316	\$ 269,486,511
Adjustment from Above	Adjustment above	(519,703)	(22,482,882) (Priced at the avg Coal \$/MWH)
		5,709,613	\$ 247,003,629

Jun 13 2023

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DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test - Projected Sales
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 15

Line No.	Description	EMF (Over)/Under		
		Forecast \$	Collection \$	Total \$
1	Amount in current docket	\$ 340,971,252	\$ 74,471,825	\$ 415,443,077
2	Amount in 2022 Filing: Docket E-2 Sub 1292	325,973,737	73,732,404	399,706,141
3	Reduction in prior year docket in excess of 2.5%	(11,048,138)		(11,048,138)
4	Increase/(Decrease)	\$ 26,045,652	\$ 739,421	\$ 26,785,073
5	2.5% of 2022 NC revenue of \$3,921,941,134			98,048,528
6	Amount over 2.5%			0

		System Cost	Alloc %	NC Alloc. Forecast
WP 4	Purchases from Dispatchable Units	\$ 122,200,054	62.17%	\$ 75,969,770
WP 4	Purchases for REPS Compliance Energy	108,673,227	62.17%	67,560,363
WP 4	Purchases for REPS Compliance Capacity	21,846,114	61.15%	13,359,461
WP 4	Purchases from Qualifying Facilities Energy	228,895,936	62.17%	142,300,849
WP 4	Purchases from Qualifying Facilities Capacity	46,899,456	61.15%	28,680,225
WP 4	Allocated Economic Purchases	21,072,752	62.17%	13,100,584
	Total	\$ 549,587,538		\$ 340,971,252

		System Cost	Alloc %	NC Alloc. Forecast
Prior Year	Dispatchable Purchased Energy	\$ 88,434,734	62.74%	\$ 55,483,952
Prior Year	Purchases for REPS Compliance Energy	116,315,118	62.74%	72,976,105
Prior Year	Purchases for REPS Compliance Capacity	23,896,105	61.54%	14,705,781
Prior Year	Purchases from Qualifying Facilities Energy	224,803,592	62.74%	141,041,773
Prior Year	Purchases from Qualifying Facilities Capacity	46,050,571	61.54%	28,339,750
Prior Year	Allocated Economic Purchases	21,400,024	62.74%	13,426,375
Prior Year	Total	\$ 520,900,144		\$ 325,973,737

DUKE ENERGY PROGRESS, LLC
North Carolina Annual Fuel and Fuel Related Expense
2.5% Calculation Test - Normalized Sales
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Workpaper 16

Line No.	Description	EMF (Over)/Under		
		Forecast \$	Collection \$	Total \$
1	Amount in current docket	\$ 338,297,483	\$ 74,471,825	\$ 412,769,308
2	Amount in 2022 Filing: Docket E-2 Sub 1292	319,747,373	73,732,404	393,479,777
3	Reduction in prior year docket in excess of 2.5%	(7,568,575)		(7,568,575)
4	Increase/(Decrease)	\$ 26,118,685	\$ 739,421	\$ 26,858,106
5	2.5% of 2022 NC revenue of \$3,921,941,134			98,048,528
6	Amount over 2.5%			0

		System Cost	Alloc %	NC Alloc. Forecast
WP 4	Purchases from Dispatchable Units	\$ 122,200,054	61.61%	\$ 75,290,264
WP 4	Purchases for REPS Compliance	108,673,227	61.61%	66,956,075
WP 4	Purchases for REPS Compliance Capacity	21,846,114	61.15%	13,359,461
WP 4	Purchases from Qualifying Facilities Energy	228,895,936	61.61%	141,028,051
WP 4	Purchases from Qualifying Facilities Capacity	46,899,456	61.15%	28,680,225
WP 4	Allocated Economic Purchases	21,072,752	61.61%	12,983,407
	Total	\$ 549,587,538		\$ 338,297,483

		System Cost	Alloc %	NC Alloc. Forecast
Prior Year	Dispatchable Purchased Energy	\$ 88,434,734	61.36%	\$ 54,262,924
Prior Year	Purchases for REPS Compliance Energy	116,315,118	61.36%	71,370,129
Prior Year	Purchases for REPS Compliance Capacity	23,896,105	61.54%	14,705,781
Prior Year	Purchases from Qualifying Facilities Energy	224,803,592	61.36%	137,937,886
Prior Year	Purchases from Qualifying Facilities Capacity	46,050,571	61.54%	28,339,750
Prior Year	Allocated Economic Purchases	21,400,024	61.36%	13,130,903
Prior Year	Total	\$ 520,900,144		\$ 319,747,373

Line No.	Reference	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	9ME
1	Adjusted System kWh Sales, at generation	6,280,264,977	6,885,022,540	5,485,737,444	4,853,247,090	4,445,813,545	5,583,584,023	5,907,460,616	4,893,563,300	4,809,481,141	49,144,174,676
2	NC Retail kWh Sales, at generation	3,677,536,175	4,399,901,465	3,421,936,676	3,259,964,097	2,685,105,983	3,386,522,236	3,785,873,438	3,156,605,781	3,084,976,791	30,858,422,642
3	NC Retail % of Sales	58.56%	63.91%	62.38%	67.17%	60.40%	60.65%	64.09%	64.51%	64.14%	62.79%
Applicable Purchase Power, Excl. JDA											
4	System Purchase Power, Excl. JDA	\$ 78,834,682	\$ 87,164,698	\$ 63,236,075	\$ 36,083,020	\$ 34,314,859	\$ 49,114,852	\$ 18,984,040	\$ 22,106,557	\$ 25,966,736	\$ 415,805,518
5	NC Purchase Power	\$ 46,163,242	\$ 55,702,953	\$ 39,445,899	\$ 24,237,247	\$ 20,724,898	\$ 29,788,848	\$ 12,166,170	\$ 14,259,892	\$ 16,656,012	\$ 259,145,162
6	NC Retail kWh Sales, at delivery	3,419,268,005	4,099,684,153	3,183,783,237	3,041,548,195	2,503,196,009	3,149,378,817	3,521,586,098	2,938,692,079	2,872,764,484	28,729,901,076
7	NC Incurred Rate	Line 5 / Line 6 * 100 1.350	1.359	1.239	0.797	0.828	0.946	0.345	0.485	0.580	0.902
Capacity											
8	System Capacity	\$ 8,818,256	\$ 12,745,196	\$ 12,590,731	\$ 4,708,308	\$ 3,502,690	\$ 3,976,438	\$ 3,240,043	\$ 4,248,351	\$ 5,437,824	\$ 59,267,837
9	NC Capacity (@ Production Plant %)	\$ 61.541%	\$ 5,426,798	\$ 7,843,457	\$ 7,748,398	\$ 2,897,516	\$ 2,155,573	\$ 2,447,120	\$ 1,993,939	\$ 2,614,456	\$ 3,346,464
10	NC Incurred Rate	Line 9/Line 6*100 0.159	0.191	0.243	0.095	0.086	0.078	0.057	0.089	0.116	0.127
11	Total NC Incurred Rate	Line 7 + Line 10 1.509	1.550	1.482	0.892	0.914	1.024	0.402	0.574	0.696	1.029
12	Billed Rate	Billed Rates Below 0.723	0.723	0.723	0.723	0.723	0.785	0.846	0.846	0.846	
13	(Over)/Under cents per kwh	Line 131- Line 12 0.786	0.827	0.759	0.169	0.191	0.239	(0.444)	(0.272)	(0.150)	
14	(Over)/Under \$	Line 6 * Line 13 / 100 \$ 26,873,638	\$ 33,911,574	\$ 24,180,111	\$ 5,148,732	\$ 4,785,955	\$ 7,526,974	\$ (15,642,989)	\$ (7,999,159)	\$ (4,313,011)	\$ 74,471,825

Flows to WP15
Flows to WP16

Billed Rate from Docket E-2, Sub 1272 - Jul'22-Nov'22

*** December billed rate is based on prorated billing factors**

Billed Rate from Docket E-2, Sub 1292 - Feb'23-Jun'23

15	Purchases from Dispatchable Units & Economic Purchases	54,629,510	2021 Revised Harrington WP4	Prior Bill Rate (Sub 1272)	New Bill Rate (Sub 1292)	December Blended Rate	Purchases from Dispatchable Units & Economic Purchases	109,834,758	2022 Harrington WP4
16	Total MWH Sales	61,963,546	2021 Revised Harrington WP3	Approved Rates	0.723	0.846	Total MWH Sales	61,541,989	2022 Harrington WP3
17	Billed Rate for Purchases	0.088		Ratios of Days to rate	50.06%	49.94%	Billed Rate for Purchases	0.178	
18	Renewables (energy)	114,179,542	2021 Revised Harrington WP4	Prorated Rate	0.362	0.423	Renewables (energy)	116,315,118	2022 Harrington WP4
19	Total MWH Sales	61,963,546	2021 Revised Harrington WP3			0.785	Total MWH Sales	61,541,989	2022 Harrington WP3
20	Billed Rate for Renewables	0.184		** January billed rate is based on prorated billing factors			Billed Rate for Renewables	0.189	
21	QF Purchases (energy)	212,217,851	2021 Revised Harrington WP4	Prior Bill Rate (Sub 1272)	New Bill Rate (Sub 1292)	January Blended Rate	QF Purchases (energy)	224,803,592	2022 Harrington WP4
22	Total MWH Sales	61,963,546	2021 Revised Harrington WP3	Approved Rates	0.723	0.846	Total MWH Sales	61,541,989	2022 Harrington WP3
23	Billed Rate for Renewables	0.342		Ratios of Days to rate	0.1%	99.9%	Billed Rate for Renewables	0.365	
24	Capacity (REPS and QF)	66,880,658	2021 Revised Harrington WP4	Prorated Rate	0.001	0.846	Capacity (REPS and QF)	69,946,676	2022 Harrington WP4
25	Total MWH Sales	61,963,546	2021 Revised Harrington WP3			0.846	Total MWH Sales	61,541,989	2022 Harrington WP3
26	Billed Rate for Capacity	0.108					Billed Rate for Capacity	0.114	
27	Total Billed Rate	0.723	To Line 12				Total Billed Rate	0.846	To Line 12