

Duke Energy Progress, LLC
North Carolina Annual Fuel and Fuel-Related Expense
Calculation of Fuel and Fuel Related Cost Factors Using:
Proposed Nuclear Capacity Factor of 92.27% with Normalized Test Period MWh Sales
Billing Period December 1, 2023 - November 30, 2024
Docket No. E-2, Sub 1321

Harrington Exhibit 6A

Line No.	Unit	Reference	Generation (MWh)	Unit Cost (cents/kWh)	Total System Cost (\$)	Remove impact of SC DERP Net Metered Generation Impact on System Avg Fuel (\$)	System Capacity Cost (\$)	System Fuel (Non-Capacity) Cost (\$)
			A	C/A/10=B	C	D	E	F = C + D - E
1	Total Nuclear	Workpaper 3-4	29,122,107	0.6113	\$ 178,009,922			\$ 178,009,922
2	Coal	Workpaper 14	5,016,368	4.3261	217,013,154			217,013,154
3	Gas - CT and CC	Workpaper 3 - 4	24,747,254	3.7763	934,531,959			934,531,959
4	Reagents & Byproducts	Workpaper 5	-		43,993,340			43,993,340
5	SC DERP Net Metering Impact on System Avg Fuel	Workpaper 10				\$ 851,357		851,357
6	Total Fossil	Sum of Lines 2 - 5	29,763,622		1,195,538,453	851,357		1,196,389,810
7	Hydro	Workpaper 3	720,836		-			-
8	Net Pumped Storage		-		-			-
9	Total Hydro	Sum of Lines 7-8	720,836		-			-
10	Utility Owned Solar Generation	Workpaper 3	270,472		-			-
11	Total Generation	Line 1 + Line 6 + Line 9 + Line 10	59,877,037		1,373,548,375	851,357		1,374,399,732
12	Purchases	Workpaper 3 - 4	11,928,598		563,779,105		\$ 68,745,569	495,033,536
13	JDA Savings Shared	Workpaper 4	-		(114,205,606)			(114,205,606)
14	Total Purchases	Sum of Lines 12 - 13	11,928,598		449,573,499		68,745,569	380,827,930
15	Total Generation and Purchases	Line 11 + Line 14	71,805,635		1,823,121,874	851,357	68,745,569	1,755,227,662
16	Fuel expense recovered through intersystem sales	Workpaper 3 - 4	(7,601,020)		(204,822,948)			(204,822,948)
17	Line losses and Company use	Line 19 - Line 15 - Line 16	(2,143,966)		-			-
18	System Fuel Expense for Fuel Factor	Line 15 + Line 16			\$ 1,618,298,926	\$ 851,357	\$ 68,745,569	\$ 1,550,404,714
19	Projected System MWh Sales at Meter for Fuel Factor	Exhibit 4	62,060,648		62,060,648			
20	Fuel and Fuel-Related Costs cents/kWh	Line 18 /Line 19 / 10			2.608			

Note: Rounding differences may occur

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Harrington Exhibit 6B

Line No.	Description		Residential	General Service Small	General Service Medium	General Service Large	Lighting	Total
1	NC Retail Normalized Test Period MWh Sales at Meter	Workpaper 9	16,725,921	1,932,412	10,657,652	8,485,997	342,287	38,144,269
Calculation of Renewable and Qualifying Facilities Purchased Power Capacity Rate by Class								
2	Renewable Purchased Power Capacity	Workpaper 4						<u>Amount</u> \$ 21,846,114
3	Purchases from Qualifying Facilities Capacity	Workpaper 4						46,899,456
4	Total of Renewable and Qualifying Facilities Purchased Power Capacity	Line 2 + Line 3						<u>\$ 68,745,569</u>
5	NC Portion - Jurisdictional % based on Production Plant Allocator	Workpaper 13						<u>61.15%</u>
6	NC Renewable and Qualifying Facilities Purchased Power Capacity	Line 4 * Line 5						<u>\$ 42,039,686</u>
7	Production Plant Allocation Factors	Workpaper 13	54.15%	5.98%	25.19%	14.69%	0.00%	100.000%
8	Renewable and Qualifying Facilities Purchased Power Capacity allocated on Production Plant %	Line 6 * Line 7	<u>\$ 22,765,363</u>	<u>\$ 2,511,908</u>	<u>\$ 10,587,865</u>	<u>\$ 6,174,549</u>	<u>\$ -</u>	<u>\$ 42,039,686</u>
9	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh based on Projected Billing Period Sales at Meter	Line 8 / Line 1 / 10	0.136	0.130	0.099	0.073	-	0.110
Summary of Total Rate by Class								
			<u>cents/kWh</u>	<u>cents/kWh</u>	<u>cents/kWh</u>	<u>cents/kWh</u>	<u>cents/kWh</u>	
10	Fuel and Fuel-Related Costs excluding Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 15 - Line 11 - Line 13 - Line 14	2.717	3.052	2.424	2.043	4.090	
11	Renewable and Qualifying Facilities Purchased Power Capacity cents/kWh	Line 9	<u>0.136</u>	<u>0.130</u>	<u>0.099</u>	<u>0.073</u>	-	
12	Total adjusted Fuel and Fuel-Related Costs cents/kWh	Line 10 + Line 11	2.853	3.182	2.523	2.116	4.090	
13	EMF Increment/(Decrement) cents/kWh	Exh 3B, 3C, 3D, 3E, 3F	1.187	1.040	1.080	1.243	1.681	
14	EMF Interest Increment/(Decrement) cents/kWh	Exh 3B, 3C, 3D, 3E, 3F	-	-	-	-	-	
15	Net Fuel and Fuel-Related Costs Factors cents/kWh	Exh 6C	<u>4.040</u>	<u>4.222</u>	<u>3.603</u>	<u>3.359</u>	<u>5.771</u>	

Note: Rounding differences may occur

Calculation of Uniform Percentage Average Bill Adjustment by Customer Class

Line No.	Rate Class	NC Retail Normalized Test Period MWh Sales at Meter	Annual Revenue at Current rates	Allocate Fuel Costs Increase/(Decrease) to Customer Class	Increase/Decrease as % of Annual Revenue at Current Rates	Total Fuel Rate Increase/(Decrease) cents/kWh	Current Total Fuel Rate (including renewables and EMF) E-2, Sub 1292 cents/kWh	Proposed Total Fuel Rate (including renewables and EMF) cents/kWh
		A	B	C	D	E	F	G
		Workpaper 9	Workpaper 12	Line 27 as a % of Column B	C / B	If D=0 then 0 if not then (C*100)/(A*1000)	Exhibit 1, Line 4	E + F = G
1	Residential	16,725,921	\$ 2,086,401,509	\$ 97,495,414	4.7%	0.583	3.457	4.040
2	Small General Service	1,932,412	279,731,721	13,071,578	4.7%	0.676	3.546	4.222
3	Medium General Service	10,657,652	997,768,827	46,624,719	4.7%	0.437	3.166	3.603
4	Large General Service	8,485,997	586,849,332	27,422,871	4.7%	0.323	3.036	3.359
5	Lighting	342,287	114,358,945	5,343,877	4.7%	1.561	4.210	5.771
6	NC Retail	38,144,269	\$ 4,065,110,334	\$ 189,958,459				
Total Proposed Composite Fuel Rate:								
7	Adjusted System Total Fuel Costs	Workpaper 9	\$ 1,619,150,283					
8	System Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 6B	68,745,569					
9	System Other Fuel Costs	Line 7 - Line 8	\$ 1,550,404,714					
10	NC Retail Allocation % - sales at generation	Workpaper 9	61.61%					
11	NC Retail Other Fuel Costs	Line 9 * Line 10	\$ 955,240,006					
12	NC Renewable and Qualifying Facilities Purchased Power Capacity	Exhibit 6B	42,039,686					
13	NC Retail Total Fuel Costs	Line 11 + Line 12	\$ 997,279,692					
14	NC Retail Reduction due to 2.5% Purchased Power Test	Workpaper 16	\$ -					
15	NC Retail Total Fuel Costs	Line 13 + Line 14	\$ 997,279,692					
16	Adjusted NC Normalized Test Period MWh Sales - at meter	Line 6, col A	38,144,269					
17	Calculated Fuel Rate cents/kWh	Line 15 / Line 16 /10	2.614					
18	Proposed Composite EMF Rate cents/kWh	Exhibit 3A	1.167					
19	Proposed Composite EMF Rate Interest cents/kWh	Exhibit 3A	0.000					
20	Total Proposed Composite Fuel Rate	Sum of Lines 17-19	3.781					
Total Current Composite Fuel Rate - Docket E-2 Sub 1292:								
21	Current composite Fuel Rate cents/kWh	2022 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 17	2.606					
22	Current composite EMF Rate cents/kWh	2022 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 18	0.677					
23	Current composite EMF Interest cents/kWh	2022 Revised Harrington Exh 2, Sch 1, Pg 3, Ln 19	0.000					
24	Total Current Composite Fuel Rate	Sum of Lines 21 - 23	3.283					
25	Increase/(Decrease) in Composite Fuel rate cents/kWh	Line 20 - Line 24	0.498					
26	Adjusted NC Normalized Test Period MWh Sales - at meter	Line 6, col A	38,144,269					
27	Increase/(Decrease) in Fuel Costs	Line 25 * Line 26 * 10	\$ 189,958,459					

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