Kendrick C. Fentress Associate General Counsel

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February 12, 2021

## VIA Electronic Filing

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

## RE: DEC and DEP's Supplemental Filing of Revised Energy Rate Calculations and Updated Avoided Energy Rates Docket No. E-100, Sub 167

Dear Ms. Campbell:

Pursuant to discussions with the Public Staff—North Carolina Utilities Commission ("Public Staff"), Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively, the "Companies") hereby submit updated Schedule PP avoided energy cost rate calculations and proposed rates for North Carolina Utilities Commission ("Commission") approval. The updated avoided cost calculations impact the energy rates originally presented in the Companies' Joint Initial Statement filed on November 2, 2020. Therefore, the Companies enclose for filing revised versions of the following Joint Initial Statement figure(s) and exhibits supporting the Company's rate calculations and avoided cost rates:

- Revised Joint Initial Statement Figure 3<sup>1</sup>
- Revised DEC Exhibit 2 (Redacted with Confidential Information filed under seal)
- Revised DEP Exhibit 2 (Redacted with Confidential Information filed under seal)
- Revised DEC Public Annualized Exhibit 5
- Revised DEP Public Annualized Exhibit 5

During the 2018 Sub 158 proceeding, DEC and DEP worked collaboratively with the Public Staff to develop a more granular rate design to provide Schedule PP customers more accurate avoided cost price signals. As a result, the Companies and the Public Staff

<sup>1</sup> The Revised Joint Initial Statement Figure 3 slightly differs from that contained in the Companies' Joint Initial Statement in that it also includes the particular rates calculated for each pricing period for each utility.



signed the Sub 158 Rate Design Stipulation,<sup>2</sup> which supported a more granular rate design as well as established guidelines and a methodology for updating the rate design to accommodate future system changes. The Sub 158 Rate Design Stipulation was subsequently approved by the Commission's Sub 158 Order.<sup>3</sup>

Consistent with the Sub 158 Order, the Companies originally proposed in their 2020 Joint Initial Statement avoided energy and capacity rates that adhered to the Sub 158 Rate Design Stipulation and were developed based upon the production cost modeling methodology utilized to develop the Companies' 2020 Integrated Resource Plans ("2020 IRP"). However, as identified in the Public Staff's<sup>4</sup> and Joint Commenter's<sup>5</sup> initial comments, the Companies' avoided energy costs resulted in counterintuitive energy pricing periods, including on-peak rates being lower than off-peak rates in certain periods. For example, as identified in the Public Staff's comments, DEP's 10-year avoided energy rate during the winter morning peak periods were lower than the avoided energy prices found in surrounding off-peak periods.<sup>6</sup>

As explained in the Public Staff's comments, this was due to a change in the Companies' production cost modeling's treatment of unit start costs as compared to the 2018 Sub 158 proceeding. In past proceedings, including the 2018 Sub 158 proceeding, the Companies' production cost model has averaged unit start costs over the unit's entire run period, and converted the cost to a \$ per MWh rate. However, in this proceeding, the Companies updated their production modeling to allocate unit start costs entirely to the hour in which they actually occurred, to more accurately reflect real-time costs. The result of this change in treatment of unit start costs caused avoided energy prices for certain peak periods to be lower than surrounding off-peak periods. The Public Staff raised concerns about this change in production cost modeling, questioning whether the Schedule PP rates were reflective of actual avoided costs, and whether it properly incentivized the appropriate operational behavior from dispatchable qualifying facilities ("QFs").<sup>7</sup>

For the avoidance of doubt, the Companies' production cost modeling of unit start costs to develop the avoided cost rates filed in the Companies' Joint Initial Statement in this proceeding was consistent with the production cost modeling used to develop the Companies' 2020 IRPs and presents a more accurate approach to modeling unit starts, but also resulted in the unintended consequence of causing the counterintuitive period energy pricing. However, after discussions with the Public Staff, the Companies have agreed to revert to modeling start costs in the same "average" run time manner previously utilized in the Sub 158 proceeding. The Companies have additionally agreed to continue to discuss this issue with the Public Staff, and commit to update the Commission on these discussions and any resulting rate design changes in the November 2021 filing.

<sup>&</sup>lt;sup>2</sup> Agreement and Stipulation of Partial Settlement, Docket No. E-100, Sub 158 (filed April 18, 2019).

<sup>&</sup>lt;sup>3</sup> Order Establishing Standard Rates and Contract Terms for Qualifying Facilities, Docket No. E-100, Sub 158 (Apr. 15, 2020).

<sup>&</sup>lt;sup>4</sup> Public Staff Initial Comments, at 46-47, Docket No. E-100, Sub 167 (Jan. 25, 2021).

<sup>&</sup>lt;sup>5</sup> Joint Initial Comments of the Southern Alliance for Clean Energy, North Carolina Clean Energy Business Alliance, and the North Carolina Sustainable Energy Association, at 9-10, Docket No. E-100, Sub 167 (Jan. 25, 2021).

<sup>&</sup>lt;sup>6</sup> Public Staff Initial Comments, at 47.

<sup>&</sup>lt;sup>7</sup> Public Staff Initial Comments, at 47.

Accordingly, the Companies hereby submit for Commission approval updated Exhibits 2 and 5 to the Joint Initial Statement providing the avoided energy and capacity rate calculations that result from production cost modeling described above. Certain information in Exhibit 2 continues to be confidential and is being filed under seal. As illustrated by Revised Joint Initial Statement Figure 3, the updated energy rates now provide higher peak prices than off-peak prices across all seasonal periods, resolving the Public Staff's concerns.

Sincerely,

Kenanik C. Jerdress

Kendrick C. Fentress

Enclosures

cc: Parties of Record

## **Duke Energy Carolinas, LLC and Duke Energy Progress, LLC** Docket No. E-100, Sub 167 Joint Initial Statement **Revised Joint Initial Statement Figure 3 (incorporating rates)**

ENERGY (1)																									
Independent Energy Price Blocks		1. Prei	Sumr mium (PM)	ner Peak )	2.	Summ Dn-Pea (PM)	ier ak	3.Su Off-	mmer Peak	4. Win	nter Pro Peak (AM)	emium	5 C	5.Winte On-Pea (AM)	er ak	e	6.Winte Dn-Pea (PM)	er Ik	7.Wi Off-F	nter 'eak	8.5 C	Should )n-Pea	ler Ik	9.Sho Off-F	ulder Peak
DEC Energy (2)	Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Summer (Jun-Sep)         2.83         3.11         3.34         3.11         2.83																									
Winter (Dec-Feb)				2.91         3.65         4.11         3.65         2.91         3.41         2.91																					
Shoulder (Remaining)			2.30 3.03 2.30 3.03 2.30																						
DEP Energy (2)	Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Summer (Jun-Sep)			·		-			2.78								2.96			3.2	23		2.96		2.78	
Winter (Dec-Feb)		3.01         3.30         4.39         3.30         3.01         3.69         3.01																							
Shoulder (Remaining)		2.34         2.93         2.34         2.93         2.34																							
<ol> <li>(1) Reflects 10 Year term distribution-connected rates for un</li> <li>(2) Note blocks reflect hour-ending.</li> </ol>	Reflects 10 Year term distribution-connected rates for uncontrolled solar facilities shown in NCPS DR 12 Note blocks reflect hour-ending.																								

CAPACITY (1)																									
Independent Price Blocks					1.Sum	mer O	n					2.\	Vinter	On (Al	M)					3.\	Winter	On (P	M)		
DEC Capacity (2)	Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
ummer (Jul - Aug)																									
Winter (Dec - Mar)	Vinter (Dec - Mar)         6.37         2.06																								
DEP Capacity (2)	Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Summer (Jul - Aug)																			0.	00					
Winter (Dec - Mar)	inter (Dec - Mar) 9.29 9.29 3.98 0 0																								
<ol> <li>Reflects 10 Year term distribution-connected rates for u</li> <li>Note blocks reflect hour-ending.</li> </ol>	ncontrolled solar fa	cilities sho	own in NG	CPS DR 12																					

**REVISED DEC EXHIBIT 2** 

### DUKE ENERGY CAROLINAS, LLC **Energy Credits** Uncontrolled Solar Generation

Distribution Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEC								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.33	2.80	2.72	3.66	3.00	2.90	2.61	2.98	2.36
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.040	1.037	1.020	1.034	1.028	1.028	1.022	1.021	1.016
4.	Unadjusted Energy Credits	3.52	2.95	2.82	3.85	3.13	3.02	2.71	3.09	2.43
-	(L1*L2*L3)	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.440
5.	(Note 4)	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110
6.	Energy Credits	3.41	2.84	2.71	3.74	3.02	2.91	2.60	2.98	2.32
	(L4 + L5)									

Distribution Based on 2021-2030 Costs (10 Year Fixed) Cents per KWH

		DEC								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost	3.27	3.06	2.84	4.02	3.60	3.38	2.91	3.03	2.34
2.	(Note 1) Working Capital Factor	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	(Note 2) Marginal Loss Factor	1.040	1.037	1.020	1.034	1.028	1.028	1.022	1.021	1.016
4.	Unadjusted Energy Credits	3.45	3.22	2.94	4.22	3.76	3.52	3.02	3.14	2.41
5.	(LT L2 <sup>~</sup> L3) Integration Services Charge (Note 4)	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110
6.	Energy Credits	3.34	3.11	2.83	4.11	3.65	3.41	2.91	3.03	2.30
	(L4 + L5)									

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)

## Transmission Losses

Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEC Summer Prem-Peal	x 3.881%	0.149%
DEC_Summer_PM-Peak	3.544%	0.136%
DEC Summer OffPeak	1.999%	0.077%
DEC_Winter_Prem-Peak	3.255%	0.125%
DEC Winter AM-Peak	2.744%	0.106%
DEC_Winter_PM-Peak	2.754%	0.106%
DEC Winter OffPeak	2.115%	0.081%
DEC_Shoulder_Peak	2.058%	0.079%
DEC Shoulder OffPeak	1.530%	0.059%

4. Solar Integration Services Charge of \$1.10/MWH for DEC per E-100 Sub 158.

## DUKE ENERGY CAROLINAS, LLC Energy Credits Uncontrolled Solar Generation

Transmission Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEC								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.33	2.80	2.72	3.66	3.00	2.90	2.61	2.98	2.36
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Unadjusted Energy Credits	3.39	2.84	2.76	3.72	3.05	2.94	2.65	3.03	2.40
	(L1*L2*L3)									
5.	Integration Services Charge (Note 4)	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110
6.	Energy Credits	3.28	2.73	2.65	3.61	2.94	2.83	2.54	2.92	2.29
	(L4 + L5)									

Transmission Based on 2021-2030 Costs (10 Year Fixed) Cents per KWH

					Cents per KWI					
		DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
		0.07			1.00					
1.	Avoided Energy Cost	3.27	3.06	2.84	4.02	3.60	3.38	2.91	3.03	2.34
	(Note 1)									
2.	Working Capital Factor	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
-	(Note 2)									
3.	Marginal Loss Factor	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
	(Note 3)									
4.	Unadjusted Energy Credits	3.33	3.11	2.88	4.09	3.66	3.43	2.96	3.08	2.38
	(L1*L2*L3)									
5.	Integration Services Charge	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110	-0.110
	(Note 4)									
6.	Energy Credits	3.22	3.00	2.77	3.98	3.55	3.32	2.85	2.97	2.27
	(L4 + L5)									

<u>Notes</u> 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)		
	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEC_Summer_Prem-Peal	x 3.881%	0.149%
DEC_Summer_PM-Peak	3.544%	0.136%
DEC_Summer_OffPeak	1.999%	0.077%
DEC_Winter_Prem-Peak	3.255%	0.125%
DEC Winter AM-Peak	2.744%	0.106%
DEC_Winter_PM-Peak	2.754%	0.106%
DEC Winter OffPeak	2.115%	0.081%
DEC_Shoulder_Peak	2.058%	0.079%
DEC Shoulder OffPeak	1.530%	0.059%

4. Solar Integration Services Charge of \$1.10/MWH for DEC per E-100 Sub 158.

## DUKE ENERGY CAROLINAS, LLC Energy Credits All but Uncontrolled Solar Generation

					Distribution					
			I	Based on 2021	-2022 Costs (V	ariable Rate)				
				С	ents per KWH					
		DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
1.	Avoided Energy Cost (Note 1)	3.33	2.80	2.72	3.66	3.00	2.90	2.61	2.98	2.36
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.040	1.037	1.020	1.034	1.028	1.028	1.022	1.021	1.016
4.	Energy Credits	3.52	2.95	2.82	3.85	3.13	3.02	2.71	3.09	2.43

(L1\*L2\*L3)

					Distribution					
				Based on 202	1-2030 Costs (	10 Year Fixed)				
					Cents per KWH	1				
		DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
1.	Avoided Energy Cost (Note 1)	3.27	3.06	2.84	4.02	3.60	3.38	2.91	3.03	2.34
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.040	1.037	1.020	1.034	1.028	1.028	1.022	1.021	1.016
4.	Energy Credits	3.45	3.22	2.94	4.22	3.76	3.52	3.02	3.14	2.41
	(L1*L2*L3)									

## Transmission Losses

	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	I ransmission level Interconnections
DEC_Summer_Prem-Peak	3.881%	0.149%
DEC_Summer_PM-Peak	3.544%	0.136%
DEC_Summer_OffPeak	1.999%	0.077%
DEC_Winter_Prem-Peak	3.255%	0.125%
DEC Winter AM-Peak	2.744%	0.106%
DEC_Winter_PM-Peak	2.754%	0.106%
DEC Winter OffPeak	2.115%	0.081%
DEC_Shoulder_Peak	2.058%	0.079%
DEC Shoulder OffPeak	1.530%	0.059%

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - %)

## DUKE ENERGY CAROLINAS, LLC Energy Credits All but Uncontrolled Solar Generation

## **Transmission** Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEC								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
				0.70				0.04		
1.	Avoided Energy Cost (Note 1)	3.33	2.80	2.72	3.66	3.00	2.90	2.61	2.98	2.36
2.	Working Capital Factor	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	(Note 2) Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Energy Credits	3.39	2.84	2.76	3.72	3.05	2.94	2.65	3.03	2.40
	(L1*L2*L3)									

## Transmission Based on 2021-2030 Costs (10 Year Fixed)

Cents	per	KWH	
-------	-----	-----	--

		DEC								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.27	3.06	2.84	4.02	3.60	3.38	2.91	3.03	2.34
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Energy Credits	3.33	3.11	2.88	4.09	3.66	3.43	2.96	3.08	2.38
	(L1*L2*L3)									

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)

<ol><li>Marginal Loss Factor = 1 / (1 - % loss/100)</li></ol>		
	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEC Summer Prem-Peak	3.881%	0.149%
DEC_Summer_PM-Peak	3.544%	0.136%
DEC Summer OffPeak	1.999%	0.077%
DEC_Winter_Prem-Peak	3.255%	0.125%
DEC Winter AM-Peak	2.744%	0.106%
DEC_Winter_PM-Peak	2.754%	0.106%
DEC Winter OffPeak	2.115%	0.081%
DEC Shoulder Peak	2.058%	0.079%
DEC Shoulder OffPeak	1.530%	0.059%

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## REDACTED Exhibit 2 Rerun - (1-24-21) Page 5

## DUKE ENERGY CAROLINAS, LLC

			Avoid	led Energy Cos	sts				
	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
	Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
	Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
Year									
	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
2021 2022 2023 2024 2025 2026 2027 2028 2029 2030									
Fuel Hedge	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC	DEC
	Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
Adjusted for Fuel Hedge	Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
Year									
2024	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
2021 2022 2023 2024 2025 2026 2027 2028 2029 2030									
2 Year Present Value Levelized Value	6.05 3.33	5.08 2.80	4.93 2.72	6.65 3.66	5.44 3.00	5.26 2.90	4.74 2.61	5.41 2.98	4.29 2.36
10 Year Present Value Levelized Value	23.28 3.27	21.78 3.06	20.20 2.84	28.65 4.02	25.65 3.60	24.04 3.38	20.72 2.91	21.55 3.03	16.65 2.34

Notes: 1. Present values and levelized values are derived using a discount rate of 6.71%

## 2. Energy costs include emission costs and fuel hedge value

## 3. Energy Hour definition:

Stipulated Energy			DEC						DEP		
		AM Period		PMPeriod			AM	Period	PM Period		
	Months	Peak	Premium Peak	Peak	Premium Peak		Months	Peak	Premium Peak	Peak	Premium Peak
Summer Weekdays	Jun - Sept			13-16, 21-22	17-20		Jun - Sept			14-16, 21	17-20
Winter Weekdays	Dec - Feb	6, 10	7-9	18-22			Dec - Feb	5-6, 10-11	7-9	19-22	
	Mar - May,						Mar - May,				
Shoulder Weekdays	Oct - Nov	7-10		17-23			Oct - Nov	6-10		18-23	

## E-100, Sub 167

## DUKE ENERGY CAROLINAS, LLC All Generation but Hydroelectric Generation without Storage

Capacity Cost for Determination of Capacity Credits

## (2020 \$000s)

	Distribu	ution	Transm	ission
	CT Cost	FOM (6)	CT Cost	FOM (6)
1. Installed Combustion Turbine Cost (Note 1)				
2. Combustion Turbine Fixed Charge Rate (Note 2)	8.20%		8.20%	
3. Annual Combustion Turbine Carrying Cost (L1*L2)				
4. General Plant Factor (Note 4)	3.62%		3.62%	
5. Adjusted Annual Combustion Turbine Carrying Cost (L3 + (L3*L4	l)			
6. Combustion Turbine Fixed O&M Expenses				
7. Working Capital Factor (Note 4)		1.0361		1.0361
8. Subtotal (L5+(L6*L7))				
9. Performance Adjustment Factor (Note 5)	1.06	1.06	1.06	1.06
10. Marginal Loss Factor (Note 7)	1.0294	1.0294	1.0011	1.0011
<ol> <li>Annual Capacity Cost (L8*L9*L10)</li> </ol>				

Notes

- 1. Cost for new combustion turbine based on EIA data in EOY 2020\$
- 2. Real levelized carrying charge rates applicable to new combustion turbine installed cost
- 3. From Page 20
- 4. From Page 21
- 5. Applicable to all but hydroelectric generation without storage
- 6. FOM split out to apply O&M escalation rate

7.	Distribution: Based on marginal % loss of:		
	On Peak	2.859%	Loss factor = (1/(1 - On Peak loss%) )
	Transmission: Step-Up Transformer Loss:	0.110%	Loss factor = (1/(1 - Step up loss%) )

## DUKE ENERGY CAROLINAS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage Annual Avoided Capacity Costs

			Distrib	ution		Transmission			
		CT	Cost	F	OM	CT Cost	FC	MC	
		Ar	nual	An	nual	Annual	An	nual	
		Capad	ity (CT)	Capaci	ty (FOM)	Capacity (CT)	Capacit	y (FOM)	
		Co	st (1)	Co	st(1)	Cost (1)	Cos	st(1)	
Year		(2020 \$000s)	<u>(Nominal \$000s)</u>	(2020 \$000s)	(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)	(Nominal \$000s)	
2021	1								
2022	2								
2023	3								
2024	4								
2025	5								
2026	6								
2027	7								
2028	8								
2029	9								
2030	10								
				Distribution			Iransmission		
			Capacity (CT)	Capacity (FOM)	Capacity Cost	Capacity (CT)	Capacity (FOM)	Capacity Cost	
2 Year Present Valu	e (Note 2)		\$0	\$0	\$0	\$0	\$0	\$0	
10 Year Present Va	ue (Note 2)		\$52,686	\$3,433	\$56,119	\$51,237	\$3,339	\$54,575	

### Notes

1.	Annual Capacity Cost (Nominal \$) = Annual Capacity		
	Cost ('20 \$) escalated at an annual rate of		
	Annual CT cost portion of Capacity Cost from Page 6 escalated	at an annual rate of	0.86%
	Annual FOM portion of Capacity Cost from Page 6 escalated at	t an annual rate of	2.50%
	Annual escalation starts in 2021		
2.	Present values are derived using a discount rate of	6.71%	

3. Capacity value is included starting with the first year of capacity need

## DUKE ENERGY CAROLINAS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage

Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	Distribution (Note 6) \$0	Transmission (Note 6) \$0
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$0	\$0
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$0	\$0

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4)		10%	68%	22%	10%	68%	22%
5. Seasonal Allocation of annua L3 x L4	I capacity cost	\$0	\$0	\$0	\$0	\$0	\$0
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Credit (\$/K L5/L6	W)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Credits (co L7/L8 * 100	ents/KWH)	0.00	0.00	0.00	0.00	0.00	0.00

<u>Notes</u> 1. From Page 7

2. Ordinary annuity factor where i = 1.0671 ^(1/12)-1)\*100 = (

and n = 24 months 0.5423%

3. Capacity Hour Definition:

(Period definitions are stated in terms	(Period definitions are stated in terms of hour-ending)							
Stipulated Capacity		DEC						
		AM Period	PM Period			AM Period	PM Period	
	Months	On Peak	On Peak		Months	On Peak	On Peak	
Summer	Jul-Aug		17-20		Jul-Aug		17-20	
Winter	Dec - Mar	7-9	19-21		Dec - Mar	7-9	19-21	

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY CAROLINAS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage

Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$56,119	Transmission (Note 6) \$54,575
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$637	\$620
3. Annual Avoided Capacity Cost L2 x 12 months	\$7,649	\$7,439

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	10%	68%	22%	10%	68%	22%
5. Seasonal Allocation of anr L3 x L4	nual capacity cost	\$765	\$5,202	\$1,683	\$744	\$5,058	\$1,637
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$3.40	\$23.12	\$7.48	\$3.31	\$22.48	\$7.27
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	s (cents/KWH) 00	1.37	6.37	2.06	1.33	6.19	2.00

<u>Notes</u> 1. From Page 7

2. Ordinary annuity factor where i = 1.0671 ^(1/12)-1)\*100 = 0.5423% ( 120 months and n =

3. Capacity Hour Definition: (Period definitions are stated in terms of hour-ending) Stipulated Capacity Months DEC AM Period On Peak DEP AM Period On Peak PM Period On Peak 17-20 19-21 PM Period On Peak 17-20 19-21 Months Months Summer Winter Jul-Aug Dec - Ma Jul-Aug Dec - Mar 7-9 7-9

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY CAROLINAS, LLC

		Distrib	ution	Trans	mission
		CT Cost	FOM	CT Cost	FOM
		Annual	Annual	Annual	Annual
		Capacity (CT)	Capacity (FOM)	Capacity (CT)	Capacity (FOM)
		Cost (1)	Cost(1)	Cost (1)	Cost(1)
Year		(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)
2021	1				
2022	2				
2023	3				
2024	4				
2025	5				
2026	6				
2027	7				
2028	8				
2029	9				
2030	10				

## Swine or Poultry Waste Generation Annual Avoided Capacity Costs

2023	3						
2024	4						
2025	5						
2026	6						
2027	7						
2028	8						
2029	9						
2030	10						
			Distribution			Transmission	
		Capacity (CT)	Capacity (FOM)	Capacity Cost	Capacity (CT)	Capacity (FOM)	Capacity Cost
2 Year Present Value (I	Note 2)	\$30,311	\$1,781	\$32,092	\$29,477	\$1,732	\$31,209
10 Year Present Value	(Note 2)	\$122 516	\$7 631	\$130 1/7	\$110 1/5	\$7 /21	\$126 565
		ψ122,510	$\psi_{1},001$	ψ100,147	φ119,1 <del>4</del> 5	Ψ1,421	$\psi_1 \ge 0, 505$

## Notes

1.	Annual Capacity Cost (Nominal \$) = Annual Capacity		
	Cost ('20 \$) escalated at an annual rate of		
	Annual CT cost portion of Capacity Cost from Page 6 escalated	at an annual rate of	0.86%
	Annual FOM portion of Capacity Cost from Page 6 escalated at	an annual rate of	2.50%
	Annual escalation starts in 2021		
2.	Present values are derived using a discount rate of	6.71%	

2. Present values are derived using a discount rate of

3. Capacity value is included starting with the first year

## DUKE ENERGY CAROLINAS, LLC Swine or Poultry Waste Generation Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	Distribution (Note 6) \$32,092	Transmission (Note 6) \$31,209
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,430	\$1,390
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$17,156	\$16,684

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	_	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4	)	10%	68%	22%		10%	68%	22%
5. Seasonal Allocation of annu L3 x L4	al capacity cost	\$1,716	\$11,666	\$3,774		\$1,668	\$11,345	\$3,671
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit (\$ L5/L6	/KW)	\$7.62	\$51.85	\$16.77		\$7.42	\$50.42	\$16.31
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits ( L7/L8 * 100	(cents/KWH) )	3.07	14.28	4.62	=	2.99	13.89	4.49

<u>Notes</u> 1. From Page 7

2. Ordinary annuity	factor where i =	(	1.00 and	671 ^(1/ <sup>,</sup> dn= 24	l2)-1)*100 = months	0	.5423%
3. Capacity Hour De	efinition: (Period definitions are stated in terms o Stipulated Capacity	f hour-ending)	DEC		1 1	DEP	
	Summer	Months Jul-Aug	AM Period On Peak	PM Period On Peak 17-20	Months Jul-Aug	AM Period On Peak	PM Period On Peak 17-20
	Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY CAROLINAS, LLC Swine or Poultry Waste Generation Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$130,147	Transmission (Note 6) \$126,565
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,478	\$1,438
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$17,740	\$17,252

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	-	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4)		10%	68%	22%		10%	68%	22%
5. Seasonal Allocation of annual o L3 x L4	capacity cost	\$1,774	\$12,063	\$3,903		\$1,725	\$11,731	\$3,795
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit (\$/KV L5/L6	V)	\$7.88	\$53.61	\$17.35		\$7.67	\$52.14	\$16.87
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits (cer L7/L8 * 100	nts/KWH)	3.18	14.77	4.78	-	3.09	14.36	4.65

<u>Notes</u> 1. From Page 7

2. Ordinary annuity factor whe	ere i = (	1.( ar	0671 ^(1/12) nd n = 120 r	)-1)*100 = nonths	0	.5423%
3. Capacity Hour Definition: (Period definitio	ns are stated in terms of hour-ending) ated Capacity	DEC		1 1	DEP	
Summer	Months Jul-Aug	AM Period On Peak	PM Period On Peak 17-20	Months Jul-Aug	AM Period On Peak	PM Period On Pcak 17-20
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY CAROLINAS, LLC Hydroelectric Generation without Storage

Capacity Cost for Determination of Capacity Credits

## (2020 \$000s)

### Distribution Tran<u>smission</u> CT Cost FOM (6) CT Cost FOM (6) 1. Installed Combustion Turbine Cost (Note 1) 8.20% 8.20% 2. Combustion Turbine Fixed Charge Rate (Note 2) 3. Annual Combustion Turbine Carrying Cost (L1\*L2) 4. General Plant Factor (Note 4) 3.62% 3.62% 5. Adjusted Annual Combustion Turbine Carrying Cost (L3 + (L3\*L4) 6. Combustion Turbine Fixed O&M Expenses 7. Working Capital Factor (Note 4) 1.0361 1.0361 8. Subtotal (L5+(L6\*L7)) 9. Performance Adjustment Factor (Note 5) 2.00 2.00 2.00 2.00 10. Marginal Loss Factor (Note 7) 1.0294 1.0294 1.0011 1.0011 11. Annual Capacity Cost

 Annual Capacity Co (L8\*L9\*L10)

## Notes

- 1. Cost for new combustion turbine based on EIA data
- 2. Real levelized carrying charge rates applicable to new combustion turbine installed cost
- 3. From Page 20
- 4. From Page 21
- 5. Applicable to hydroelectric generation without storage
- 6. FOM split out to apply O&M escalation rate

7. Distribution:		
Based on marginal % loss of:		
On Peak	2.859%	Loss factor = (1/(1 - On Peak loss%) )
Transmission:		
Step-Up Transformer Loss:	0.110%	Loss factor = (1/(1 - Step up loss%) )

\$224,801

\$14,001

\$238,803

### DUKE ENERGY CAROLINAS, LLC <u>Certain Hydroelectric Generation without Storage</u> Annual Avoided Capacity Costs (Note 4)

		Distrib	ution	Transm	nission
		CT Cost	FOM	CT Cost	FOM
		Annual	Annual	Annual	Annual
		Capacity (CT)	Capacity (FOM)	Capacity (CT)	Capacity (FOM)
		Cost (1)	Cost(1)	Cost (1)	Cost(1)
Year		(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)
2021	1				
2022	2				
2023	3				
2024	4				
2025	5				
2026	6				
2027	7				
2028	8				
2029	9				
2030	10				
			Distribution		Transmission
		Capacity (CT)	Capacity Capacity Cost (FOM)	Capacity (CT)	Capacity Capacity Cost (FOM)
Year Present Va	alue (Note 2)	\$57,190	\$3,360 \$60,551	\$55,617	\$3,268 \$58,884

\$14,397

\$245,560

Notes

2

10 Year Present Value (Note 2)

 Annual Capacity Cost (Nominal \$) = Annual Capacity Cost ('20 \$) escalated at an annual rate of Annual CT cost portion of Capacity Cost from Page 13 escalated at an annual rate of Annual FOM portion of Capacity Cost from Page 13 escalated at an annual rate of Annual escalation starts in 2021
 Present values are derived using a discount rate of 6.71%

3. Capacity value is included starting with the first year

4. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

\$231,163

# DUKE ENERGY CAROLINAS, LLC Certain Hydroelectric Generation without Storage (Note 7) Capacity Credits Variable Rate Based on 2021-2022 Costs

<ol> <li>Avoided Capacity Cost Present Value of 2020-2021 (Note 1)</li> </ol>	-	Distribution (Note 6) \$60,551			-	Transmission (Note 6) \$58,884	
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)		\$2,698				\$2,623	
3. Annual Avoided Capacity Cost L2 x 12 months		\$32,370				\$31,479	
SEASONAL CREDITS (Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	-	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4)	10%	68%	22%		10%	68%	22%
5. Seasonal Allocation of annual capacity cost L3 x L4	\$3,237	\$22,012	\$7,121		\$3,148	\$21,406	\$6,925
6. Rating -MW (Note 5)	225	225	225		225	225	225
7. Seasonal Capacity Credit (\$/KW) L5/L6	\$14.39	\$97.83	\$31.65		\$13.99	\$95.14	\$30.78
8. Seasonal Peak Hours	248	363	363		248	363	363
9. Seasonal Capacity Credits (cents/KWH) L7/L8 * 100	5.80	26.95	8.72	-	5.64	26.21	8.48
<u>Notes</u> 1. From Page 14							
2. Ordinary annuity factor where i =	( 1.0671	^(1/12)-1)*100 =	=	0.5423%			
3. Capacity Hour Definition:	anu n –			_			

3. Capacity Hour Definition: (Period definitions are stated in terms of hour-ending)

Stipulated Capacity	city DEC				DEP	
Mont		AM Period On Peak	PM Period On Peak	Months	AM Period On Peak	PM Period On Peak
Summer	Jul-Aug		17-20	Jul-Aug		17-20
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LULH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

7. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

# DUKE ENERGY CAROLINAS, LLC <u>Certain Hydroelectric Generation without Storage (Note 7)</u> Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

<ol> <li>Avoided Capacity Cost Present Value of 2021-2030 (Note 1)</li> </ol>	Distribution (Note 6) \$245,560	Transmission (Note 6) \$238,803
<ol> <li>Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)</li> </ol>	\$2,789	\$2,713
3. Annual Avoided Capacity Cost L2 x 12 months	\$33,471	\$32,550
SEASONAL CREDITS (Note 3)	Summer Winter Winter	Summer Winter Winter

	Months	Months	Months	Months	Months	Months
	PM	AM	PM	PM	AM	PM
4. Seasonal Allocation (Note 4)	10%	68%	22%	10%	68%	22%
5. Seasonal Allocation of annual capacity cost						
L3 x L4	\$3,347	\$22,761	\$7,364	\$3,255	\$22,134	\$7,161
6. Rating -MW (Note 5)	225	225	225	225	225	225
7. Seasonal Capacity Credit (\$/KW) L5/L6	\$14.88	\$101.16	\$32.73	\$14.47	\$98.37	\$31.83
8. Seasonal Peak Hours	248	363	363	248	363	363
9. Seasonal Capacity Credits (cents/KWH) L7/L8 * 100	6.00	27.87	9.02	5.83	27.10	8.77

<u>Notes</u> 1. From Page 14

2. Ordinary a	nnuity factor where i =		(	1.0671 and n =	^(1/12)-1)*100 120 months	) =	0.5423%
3. Capacity H	OUT Definition: (Period definitions are stated in term	s of hour-endina)					-
	Stipulated Capacity		DEC			DEP	
		Months	AM Period On Peak	PM Period On Peak	Months	AM Period On Peak	PM Period On Peak
	Summer	Jul-Aug		17-20	Jul-Aug		17-20
	Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LULH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

7. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

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## REDACTED Exhibit 2 Rerun - (1-24-21) Page 17

## DUKE ENERGY CAROLINAS, LLC All Other Hydroelectric Generation without Storage Annual Avoided Capacity Costs

			Distribution			Transmission			
		CT Cost	F	OM	CT Cost	FC	MC		
		Annual	A	nnual	Annual	An	nual		
		Capacity (CT)	Capac	ity (FOM)	Capacity (CT)	Capacit	ty (FOM)		
		Cost (1)	Ċ	ost(1)	Cost (1)	Cos	st(1)		
Year		(2020 \$000s) (Nominal \$	000s) (2020 \$000s)	(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)	(Nominal \$000s)		
2021	1								
2022	2								
2023	3								
2024	4								
2025	5								
2026	6								
2027	7								
2028	8								
2029	9								
2030	10								
			Distribution			Transmission			
		Capacity	(CT) Capacity	Capacity Cost	Capacity (CT)	Capacity	Capacity Cost		
			(FOM)			(FOM)			
2 Year Present Value (N	Note 2)		\$0 \$0	\$0	\$0	\$0	\$0		
10 Year Present Value	(Note 2)	\$99,4	408 \$6,477	\$105,886	\$96,673	\$6,299	\$102,972		

## Notes

1.	Annual Capacity Cost (Nominal \$) = Annual Capacity	
	Cost ('20 \$) escalated at an annual rate of	
	Annual CT cost portion of Capacity Cost from Page 13 escalated at an annual rate of	0.86%
	Annual FOM portion of Capacity Cost from Page 13 escalated at an annual rate of	2.50%
	Annual escalation starts in 2021	
-		

2. Present values are derived using a discount rate of 6.71%

3. Capacity value is included starting with the first year of capacity need

# DUKE ENERGY CAROLINAS, LLC All Other Hydroelectric Generation without Storage Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	Distribution (Note 6) \$0	Transmission (Note 6) \$0
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$0	\$0
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$0	\$0

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM		Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	10%	68%	22%		10%	68%	22%
5. Seasonal Allocation of ann L3 x L4	ual capacity cost	\$0	\$0	\$0		\$0	\$0	\$0
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$0.00
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	(cents/KWH)	0.00	0.00	0.00	-	0.00	0.00	0.00

<u>Notes</u> 1. From Page 17

<ol><li>Ordinary annuity factor where i =</li></ol>	(	1.0671	^(1/12)-1)*100 =	0.5423%
		and n =	24 months	
<ol><li>Capacity Hour Definition:</li></ol>				
(Period definitions are stated in terms of hour	-ending)			

Stipulated Capacity		DEC		DEP			
	Months	AM Period On Peak	PM Period On Peak	Months	AM Period On Peak	PM Period On Peak	
Summer	Jul Aug		17 20	Jul Aug		17 20	
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21	

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

# DUKE ENERGY CAROLINAS, LLC All Other Hydroelectric Generation without Storage Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$105,886	Transmission (Note 6) \$102,972
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,203	\$1,170
3. Annual Avoided Capacity Cost	\$14,433	\$14,036

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	-	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4	)	10%	68%	22%		10%	68%	22%
5. Seasonal Allocation of annu L3 x L4	al capacity cost	\$1,443	\$9,814	\$3,175		\$1,404	\$9,544	\$3,088
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit (\$/ L5/L6	/KW)	\$6.41	\$43.62	\$14.11		\$6.24	\$42.42	\$13.72
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits ( L7/L8 * 100	cents/KWH)	2.59	12.02	3.89	-	2.52	11.69	3.78

<u>Notes</u> 1. From Page 17

2. Ordinary annuity factor when	rei= (	1.0671	^(1/12)-1)*100	= 0.5423%
		and n =	120 months	
<ol><li>Capacity Hour Definition:</li></ol>				
(Period definitions	s are stated in terms of hour-ending)	1		

Stipulated Capacity		DEC			DEP			
		AM Period	PM Period			AM Period	PM Period	
	Months	On Peak	On Peak		Months	On Peak	On Peak	
Summer	Jul Aug		17 20		Jul Aug		17 20	
Winter	Dec - Mar	7-9	19-21		Dec - Mar	7-9	19-21	

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY CAROLINAS, LLC

Allowance For Working Capital (\$ 000)

		<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	Source (Note 4)
1. 2.	Materials & Supplies (Production) Fuel Stock	\$622,149 \$491,480	\$597,521 \$290,784	\$555,915 \$229,301	\$212,345 \$220,761	\$150,684 \$230,172	P 227, L7 P 227, L1
2	Production OPM	¢0.020.000	¢2 800 842	¢0 000 550	¢0 000 064	¢0 726 661	D 200 200 1 00
3. 4.	Burned Fuel Cost And PP (Note 1)	\$2,970,332 \$1,886,485	\$2,890,843 \$1,795,273	\$2,882,558 \$1,821,593	\$2,001,979	\$2,736,561 \$1,823,692	P 320-323, L80 pg 320-323, L5,25,45, 63, 76
5.	Nonfuel Production O&M (L3-L4)	\$1,083,847	\$1,095,570	\$1,060,965	\$836,385	\$912,869	-
6.	Nonfuel Related Allowance For Working Capital L1 x 8.76% (Note 2)	\$54,492	\$52,335	\$48,691	\$18,599	\$13,198	
7.	Allowance For Working Capital As a % Of Nonfuel Production O&M L6/L5	5.03%	4.78%	4.59%	2.22%	1.45%	
8.	5 Year Average For Working Capital a	as a % of Nonfuel	Production O&I	N			3.61%
9.	Fuel Related Allowance for Working Capital L2x 8.76% (Note 2)	\$43,047	\$25,469	\$20,084	\$19,336	\$20,160	
10.	Allowance For Working Capital As a % Of Burned Fuel L9/L4	2.28%	1.42%	1.10%	0.97%	1.11%	
11.	5 Year Average For Working Capital	as a % of Burned	d Fuel			1.38%	
12.	Weighted Average For Working Cap	ital For Fuel and	O&M (Note 3)				1.54%

### Notes:

Steam Fuel + Nuclear Fuel + Other Fuel + Purchased Power
 Pre-Tax Rate of Return on Capital

3. Weights Based on Average Breakdown of Avoided Cost Between Fuel and Variable O&M Fuel: 93%

Variable O&M:

Weighted Average = (Average Line 8 \* Variable O&M Weight) + (Average Line 11 \* Fuel Weight) 4. Data From FERC Form 1, Annual Issues

7%

## DUKE ENERGY CAROLINAS, LLC

## General / Intangible Plant Loading Factor (\$ 000)

Description	<u>2015</u>	<u>2016</u>	<u>2017</u>	2018	<u>2019</u>	Source (Note 2)		
<ol> <li>Electric Plant in Service (Note 1)</li> <li>General Plant</li> <li>Intangible Plant</li> </ol>	34,918,053 884,359 730,607	36,784,265 902,961 817,550	38,254,507 1,121,529 943,491	41,087,210 1,212,054 986,751	45,464,149 1,335,933 1,042,384	P 206-7, L 104-ARO P 206-7, L 99 P 204-5, L 5		
4. Plant in Service Adj for Gen/ Int Plant	\$33,303,086	\$35,063,754	\$36,189,487	\$38,888,405	\$43,085,832	=		
Functionalized Plant Balances								
<ol> <li>5. Production Demand (Note 1)</li> <li>6. Transmission</li> <li>7. Distribution</li> </ol>	19,625,143 3,406,750 10,271,193	20,742,029 3,568,697 10,753,028	20,969,006 3,874,751 11,345,730	22,749,854 4,052,747 12,085,804	25,723,860 4,467,299 12,894,673	P 206-7, L 46 P 206-7, L 58 P 206-7, L 75		
2019 Unit Cost Functionaliz <u>General</u> Production Demand 26%	Intangible 56%		Unit Cost Analys	sis for 2019 COS				
Gen / Int Plant Adder (Note 3)	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	Average		
Production Demand	3.29%	3.37%	3.95%	3.85%	3.66%	3.62%		

Notes 1. Values are net of ARO-related balances FF1 pg 206-7 (Lines 15,24,34,44,57,74,98) 2. Data From FERC Form 1, Annual Issues

3. Formula:

(General Plant x General Plant Unit Cost Functionalization %) -unctionalized Plant Balance + (Intangible Plant x Intangible Plant Unit Cost Functionalization %) /(Functionalized Plant Balance)

**REVISED DEP EXHIBIT 2** 

### DUKE ENERGY PROGRESS, LLC Energy Credits Uncontrolled Solar Generation

Distribution Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEP								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.43	2.97	2.73	4.07	3.07	3.43	2.86	2.95	2.45
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.032	1.030	1.017	1.029	1.022	1.023	1.016	1.015	1.012
4.	Unadjusted Energy Credits (I 1*I 2*I 3)	3.59	3.10	2.82	4.25	3.18	3.56	2.94	3.03	2.51
5.	Integration Services Charge (Note 4)	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239
6.	Energy Credits	3.35	2.86	2.58	4.01	2.94	3.32	2.70	2.79	2.27

(L4 + L5)

## Distribution Based on 2021-2030 Costs (10 Year Fixed) Cents per KWH

		DEP								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost	3.32	3.06	2.92	4.43	3.42	3.79	3.15	3.08	2.51
	(Note 1)									
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor	1.032	1.030	1.017	1.029	1.022	1.023	1.016	1.015	1.012
4.	(Note 3) Unadjusted Energy Credits	3.47	3.20	3.02	4.63	3.54	3.93	3.25	3.17	2.58
_	(L1*L2*L3)									
5.	Integration Services Charge (Note 4)	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239
6.	Energy Credits	3.23	2.96	2.78	4.39	3.30	3.69	3.01	2.93	2.34
	(L4 + L5)									

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)

	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEP Summer Prem-Peak	3.064%	0.140%
DEP_Summer_PM-Peak	2.955%	0.135%
DEP Summer OffPeak	1.694%	0.077%
DEP Winter Prem-Peak	2.838%	0.130%
DEP Winter AM-Peak	2.116%	0.097%
DEP Winter PM-Peak	2.264%	0.103%
DEP Winter OffPeak	1.617%	0.074%
DEP Shoulder Peak	1.488%	0.068%
DEP Shoulder OffPeak	1.154%	0.053%

4. Solar Integration Services Charge of \$2.39/MWH for DEP per E-100 Sub 158.

## DUKE ENERGY PROGRESS, LLC Energy Credits Uncontrolled Solar Generation

Transmission Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEP								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.43	2.97	2.73	4.07	3.07	3.43	2.86	2.95	2.45
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Unadjusted Energy Credits	3.49	3.02	2.78	4.14	3.12	3.48	2.90	2.99	2.48
5	(L1*L2*L3)	-0 239	-0 239	-0 239	-0 239	-0 239	-0 239	-0 239	-0 239	-0 239
0.	(Note 4)	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
6.	Energy Credits	3.25	2.78	2.54	3.90	2.88	3.24	2.66	2.75	2.24
	(L4 + L5)									

Transmission Based on 2021-2030 Costs (10 Year Fixed) Cents per KWH

				,	Cents per KWI					
		DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
						o 40	0.70	0.45		0.54
1.	Avoided Energy Cost	3.32	3.06	2.92	4.43	3.42	3.79	3.15	3.08	2.51
~	(Note 1)	4.045		4.045	4.045	4.045	4.045	4.045	4 9 4 5	4.045
2.	Working Capital Factor	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
	(Note 2)									
3.	Marginal Loss Factor	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
	(Note 3)									
4.	Unadjusted Energy Credits	3.37	3.11	2.97	4.50	3.47	3.85	3.20	3.12	2.55
	(L1*L2*L3)									
5.	Integration Services Charge	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239	-0.239
	(Note 4)									
6.	Energy Credits	3.13	2.87	2.73	4.26	3.23	3.61	2.96	2.88	2.31
	(L4 + L5)									

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)

	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEP_Summer_Prem-Peak	x 3.064%	0.140%
DEP_Summer_PM-Peak	2.955%	0.135%
DEP Summer OffPeak	1.694%	0.077%
DEP_Winter_Prem-Peak	2.838%	0.130%
DEP Winter AM-Peak	2.116%	0.097%
DEP Winter PM-Peak	2.264%	0.103%
DEP Winter OffPeak	1.617%	0.074%
DEP Shoulder Peak	1.488%	0.068%
DEP Shoulder OffPeak	1.154%	0.053%

4. Solar Integration Services Charge of \$2.39/MWH for DEP per E-100 Sub 158.

## DUKE ENERGY PROGRESS, LLC Energy Credits All but Uncontrolled Solar Generation

					Distribution					
				Based on 2021	-2022 Costs (V	ariable Rate)				
				С	ents per KWH					
		DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
1.	Avoided Energy Cost (Note 1)	3.43	2.97	2.73	4.07	3.07	3.43	2.86	2.95	2.45
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.032	1.030	1.017	1.029	1.022	1.023	1.016	1.015	1.012
4.	Energy Credits	3.59	3.10	2.82	4.25	3.18	3.56	2.94	3.03	2.51

(L1\*L2\*L3)

				Based on 202	Distribution 1-2030 Costs ( Cents per KWH	10 Year Fixed) I				
		DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
1.	Avoided Energy Cost (Note 1)	3.32	3.06	2.92	4.43	3.42	3.79	3.15	3.08	2.51
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.032	1.030	1.017	1.029	1.022	1.023	1.016	1.015	1.012
4.	Energy Credits	3.47	3.20	3.02	4.63	3.54	3.93	3.25	3.17	2.58
	(L1*L2*L3)									

## Transmission L

	I ransmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEP_Summer_Prem-Peak	3.064%	0.140%
DEP_Summer_PM-Peak	2.955%	0.135%
DEP_Summer_OffPeak	1.694%	0.077%
DEP_Winter_Prem-Peak	2.838%	0.130%
DEP Winter AM-Peak	2.116%	0.097%
DEP_Winter_PM-Peak	2.264%	0.103%
DEP Winter OffPeak	1.617%	0.074%
DEP_Shoulder_Peak	1.488%	0.068%
DEP Shoulder OffPeak	1.154%	0.053%
DEP_Winter_PM-Peak DEP_Winter_OffPeak DEP_Shoulder_Peak DEP_Shoulder_OffPeak	2.264% 1.617% 1.488% 1.154%	0.103% 0.074% 0.068% 0.053%

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - %)

## DUKE ENERGY PROGRESS, LLC Energy Credits All but Uncontrolled Solar Generation

## **Transmission** Based on 2021-2022 Costs (Variable Rate) Cents per KWH

		DEP								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.43	2.97	2.73	4.07	3.07	3.43	2.86	2.95	2.45
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Energy Credits	3.49	3.02	2.78	4.14	3.12	3.48	2.90	2.99	2.48
	(L1*L2*L3)									

## Transmission Based on 2021-2030 Costs (10 Year Fixed) Cents per KWH

		DEP								
		Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
		Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
		(Cents/KWH)								
1.	Avoided Energy Cost (Note 1)	3.32	3.06	2.92	4.43	3.42	3.79	3.15	3.08	2.51
2.	Working Capital Factor (Note 2)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015	1.015
3.	Marginal Loss Factor (Note 3)	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
4.	Energy Credits	3.37	3.11	2.97	4.50	3.47	3.85	3.20	3.12	2.55
	(L1*L2*L3)									

Notes 1. From Page 5 2. From Page 20 3. Marginal Loss Factor = 1 / (1 - % loss/100)

	Transmission Losses	
Based on marginal % losses of:	(Incl Step Up and Step down Transformer)	Step Up Transformer Losses
Applies to:	Distribution level Interconnections	Transmission level Interconnections
DEP_Summer_Prem-Peak	3.064%	0.140%
DEP_Summer_PM-Peak	2.955%	0.135%
DEP_Summer_OffPeak	1.694%	0.077%
DEP_Winter_Prem-Peak	2.838%	0.130%
DEP_Winter_AM-Peak	2.116%	0.097%
DEP_Winter_PM-Peak	2.264%	0.103%
DEP_Winter_OffPeak	1.617%	0.074%
DEP_Shoulder_Peak	1.488%	0.068%
DEP Shoulder OffPeak	1.154%	0.053%

## E-100, Sub 167

## REDACTED Exhibit 2 Rerun - (1-24-21) Page 5

## DUKE ENERGY PROGRESS, LLC

			Avoid	ded Energy Cos	sts				
	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP
	Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
-	Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
Year									
-	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
2021 2022 2023 2024 2025 2026 2027 2028 2029 2030									
Fuel Hedge	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
-	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP	DEP
	Summer	Summer	Summer	Winter	Winter	Winter	Winter	Shoulder	Shoulder
Adjusted for Fuel Hedge	Prem-Peak	PM-Peak	Off Peak	Prem-Peak	AM-Peak	PM-Peak	Off Peak	Peak	Off Peak
Year									
0001	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)	(Cents/KWH)
2021 2022 2023 2024 2025 2026 2027 2028 2029 2030									
2 Year Present Value Levelized Value	6.24 3.43	5.40 2.97	4.97 2.73	7.41 4.07	5.59 3.07	6.23 3.43	5.19 2.86	5.36 2.95	4.45 2.45
10 Year Present Value Levelized Value	23.76 3.32	21.94 3.06	20.92 2.92	31.72 4.43	24.46 3.42	27.13 3.79	22.57 3.15	22.03 3.08	17.98 2.51

Notes: 1. Present values and levelized values are derived using a discount rate of 6.59%

## 2. Energy costs include emission costs and fuel hedge value

## 3. Energy Hour definition:

Stipulated Energy			DEC					DEP		
		AM	Period	PMI	Period		AM	Period	PM	Period
	Months	Peak	Premium Peak	Peak	Premium Peak	Months	Peak	Premium Peak	Peak	Premium Peak
Summer Weekdays	Jun - Sept			13-16, 21-22	17-20	Jun - Sept			14-16, 21	17-20
Winter Weekdays	Dec - Feb	6, 10	7-9	18-22		Dec - Feb	5-6, 10-11	7-9	19-22	
	Mar - May,					Mar - May,				
Shoulder Weekdays	Oct - Nov	7-10		17-23		Oct - Nov	6-10		18-23	

## E-100, Sub 167

## DUKE ENERGY PROGRESS, LLC All Generation but Hydroelectric Generation without Storage

Capacity Cost for Determination of Capacity Credits

## (2020 \$000s)

		Distrib	ution	Transm	ission
		CT Cost	FOM (6)	CT Cost	FOM (6)
1.	Installed Combustion Turbine Cost (Note 1)				
2.	Combustion Turbine Fixed Charge Rate (Note 2)	7.97%		7.97%	
3.	Annual Combustion Turbine Carrying Cost (L1*L2)				
4.	General Plant Factor (Note 4)	2.11%		2.11%	
5.	Adjusted Annual Combustion Turbine Carrying Cost (L3 + (L3*L4)				
6.	Combustion Turbine Fixed O&M Expenses				
7.	Working Capital Factor (Note 4)		1.0516		1.0516
8.	Subtotal (L5+(L6*L7))				
9.	Performance Adjustment Factor (Note 5)	1.06	1.06	1.06	1.06
10	Marginal Loss Factor (Note 7)	1.0230	1.0230	1.0010	1.0010
11	Annual Capacity Cost (L8*L9*L10)				

Notes

- 1. Cost for new combustion turbine based on EIA data in EOY 2020\$
- 2. Real levelized carrying charge rates applicable to new combustion turbine installed cost
- 3. From Page 20
- 4. From Page 21
- 5. Applicable to all but hydroelectric generation without storage
- 6. FOM split out to apply O&M escalation rate

7.	Distribution: Based on marginal % loss of:		
	On Peak	2.249%	Loss factor = (1/(1 - On Peak loss%) )
	Transmission: Step-Up Transformer Loss:	0.103%	Loss factor = (1/(1 - Step up loss%) )

## DUKE ENERGY PROGRESS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage Annual Avoided Capacity Costs

	Distrib	ution		Trans	mission	
	CT Cost	F	MC	CT Cost	FC	M
	Annual	An	nual	Annual	Ann	ual
	Capacity (CT)	Capacit	ty (FOM)	Capacity (CT)	Capacity	/ (FOM)
	Cost (1)	Co	st(1)	Cost (1)	Cos	t(1)
<u>Year</u>	(2020 \$000s) (Nominal \$000s)	<u>(2020 \$000s)</u>	(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)	(Nominal \$000s)
2021 1						
2022 2						
2023 3						
2024 4						
2025 5						
2026 6						
2027 7						
2028 8						
2029 9						
2030 10						
		Distribution			Transmission	
	Capacity (CT)	Capacity (FOM)	Capacity Cost	Capacity (CT)	Capacity (FOM)	Capacity Cost
2 Year Present Value (Note 2)	\$0	\$0	\$0	\$0	\$0	\$0
10 Year Present Value (Note 2)	\$74,832	\$5,096	\$79,927	\$73,224	\$4,986	\$78,210

notes
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140			
1.	Annual Capacity Cost (Nominal \$) = Annual Capacity		
	Cost ('20 \$) escalated at an annual rate of		
	Annual CT cost portion of Capacity Cost from Page 6 escalated	at an annual rate of	0.86%
	Annual FOM portion of Capacity Cost from Page 6 escalated at	an annual rate of	2.50%
	Annual escalation starts in 2021		
2.	Present values are derived using a discount rate of	6.59%	

3. Capacity value is included starting with the first year of capacity need

## DUKE ENERGY PROGRESS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage

Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	Distribution (Note 6) \$0	Transmission (Note 6) \$0
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$0	\$0
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$0	\$0

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	0%	70%	30%	0%	70%	30%
5. Seasonal Allocation of anr L3 x L4	nual capacity cost	\$0	\$0	\$0	\$0	\$0	\$0
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	s (cents/KWH) 00	0.00	0.00	0.00	0.00	0.00	0.00

<u>Notes</u> 1. From Page 7

2. Ordinary annuity	factor where i =	(	1.06 and	659 ^(1/12) in= 24 mo	-1)*100 = onths	0	.5332%
3. Capacity Hour De	Capacity Hour Definition: (Period definitions are stated in terms of hour-ending) Stimulated Capacity DEC DEC						
		Months	AM Period On Peak	PM Period On Peak	Months	AM Period On Peak	PM Period On Pcak
	Summer Winter	Jul-Aug Dec - Mar	7-9	17-20 19-21	Jul-Aug Dec - Mar	7-9	17-20 19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY PROGRESS, LLC All but Swine or Poultry Waste Generation and Hydroelectric Generation without Storage

Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$79,927	Transmission (Note 6) \$78,210
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$903	\$884
3. Annual Avoided Capacity Cost	\$10,841	\$10,608

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM		Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (N	lote 4)	0%	70%	30%	##	0%	70%	30%
5. Seasonal Allocation of L3 x L	annual capacity cost 4	\$0	\$7,589	\$3,252		\$0	\$7,426	\$3,182
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Crea L5/L6	dit (\$/KW)	\$0.00	\$33.73	\$14.45		\$0.00	\$33.00	\$14.14
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Cre L7/L8	edits (cents/KWH) * 100	0.00	9.29	3.98	- -	0.00	9.09	3.90

<u>Notes</u> 1. From Page 7

2. Ordinary annuity	factor where i =	(	1.06 and	59 ^(1/12)-2 I n = 120 mo	l)*100 = onths	0.	5332%
3. Capacity Hour Definition: (Period definitions are stated in terms of hour-ending)							
		Months	AM Period On Peak	PM Period On Peak	Months	AM Period On Peak	PM Period On Peak
	Summer	Jul-Aug		17-20	Jul-Aug		17-20
	Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY PROGRESS, LLC Swine or Poultry Waste Generation Annual Avoided Capacity Costs

		Distrib	ution	Trans	mission
		CT Cost	CT Cost FOM		FOM
		Annual	Annual	Annual	Annual
		Capacity (CT)	Capacity (FOM)	Capacity (CT)	Capacity (FOM)
		Cost (1)	Cost (1) Cost(1)		Cost(1)
<u>'ear</u>		(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s) (Nominal \$000s
2024	4				
2021	1				
2022	2				
2023	3				
2024	4				
2025	5				
2026	6				
2027	7				
2028	8				
2029	9				
	10				

		Distribution				Transmission	
	Capacity (CT)	Capacity (FOM)	Capacity Cost	Ca	pacity (CT)	Capacity (FOM)	Capacity Cost
2 Year Present Value (Note 2)	\$28,807	\$1,800	\$30,607		\$28,188	\$1,762	\$29,950
10 Year Present Value (Note 2)	\$116,892	\$7,745	\$124,636		\$114,381	\$7,578	\$121,959

## Notes

1.	Annual Capacity Cost (Nominal \$) = Annual Capacity		
	Cost ('20 \$) escalated at an annual rate of		
	Annual CT cost portion of Capacity Cost from Page 6 escalated	at an annual rate of	0.86%
	Annual FOM portion of Capacity Cost from Page 6 escalated at	an annual rate of	2.50%
	Annual escalation starts in 2021		
2.	Present values are derived using a discount rate of	6.59%	

2. Present values are derived using a discount rate of

3. Capacity value is included starting with the first year

## DUKE ENERGY PROGRESS, LLC Swine or Poultry Waste Generation Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	Distribution (Note 6) \$30,607	Transmission (Note 6) \$29,950
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,362	\$1,333
3. Annual Avoided Capacity Cost L2 x 12 months	\$16,344	\$15,993

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (No	ote 4)	0%	70%	30%	0%	70%	30%
5. Seasonal Allocation of a L3 x L4	annual capacity cost	\$0	\$11,441	\$4,903	\$0	\$11,195	\$4,798
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Cred L5/L6	it (\$/KW)	\$0.00	\$50.85	\$21.79	\$0.00	\$49.76	\$21.32
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Cred L7/L8 *	lits (cents/KWH) 100	0.00	14.01	6.00	0.00	13.71	5.87

<u>Notes</u> 1. From Page 7

^(1/12)-1)\*100 = 24 months 2. Ordinary annuity factor where i = 1.0659 0.5332% ( and n = 3. Capacity Hour Definition: (Period definitions are stated in terms of hour-ending) Stipulated Capacity DEC DEP 

oupulated capacity	DEC		DEI			
	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	AM Period	PM Period		AM Period	PM Period
	Months	On Peak	On Peak	Months	On Peak	On Peak
Summer	Jul-Aug		17-20	Jul-Aug		17-20
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY PROGRESS, LLC Swine or Poultry Waste Generation Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$124,636	Transmission (Note 6) \$121,959
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,409	\$1,379
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$16,905	\$16,542

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM		Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note 4)		0%	70%	30%	##	0%	70%	30%
5. Seasonal Allocation of annual o L3 x L4	capacity cost	\$0	\$11,834	\$5,072		\$0	\$11,579	\$4,963
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit (\$/KW L5/L6	/)	\$0.00	\$52.59	\$22.54		\$0.00	\$51.46	\$22.06
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits (cer L7/L8 * 100	nts/KWH)	0.00	14.49	6.21		0.00	14.18	6.08

Notes 1. From Page 7

^(1/12)-1)\*100 = 120 months 2. Ordinary annuity factor where i = 1.0659 0.5332% ( and n = 3. Capacity Hour Definition: (Period definitions are stated in terms of hour-ending) Stipulated Capacity DEC DEP 

			AM Period	PM Period		AM Period	PM Period	
		Months	On Peak	On Peak	Months	On Peak	On Peak	
	Summer	Jul-Aug		17-20	Jul-Aug		17-20	
	Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21	
Deserved and OUL								

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY PROGRESS, LLC Hydroelectric Generation without Storage

Capacity Cost for Determination of Capacity Credits

## (2020 \$000s)

		Distrib	ution	Transmission		
		CT Cost	FOM (6)	CT Cost	FOM (6)	
1.	Installed Combustion Turbine Cost (Note 1)					
2.	Combustion Turbine Fixed Charge Rate (Note 2)	7.97%		7.97%		
3.	Annual Combustion Turbine Carrying Cost (L1*L2)					
4.	General Plant Factor (Note 4)	2.11%		2.11%		
5.	Adjusted Annual Combustion Turbine Carrying Cost (L3 + (L3*L4)					
6.	Combustion Turbine Fixed O&M Expenses					
7.	Working Capital Factor (Note 4)		1.0516		1.0516	
8.	Subtotal (L5+(L6*L7))					
9.	Performance Adjustment Factor (Note 5)	2.00	2.00	2.00	2.00	
10	Marginal Loss Factor (Note 7)	1.0230	1.0230	1.0010	1.0010	
11	Annual Capacity Cost					

(L8\*L9\*L10)

<u>Notes</u> 1. Cost for new combustion turbine based on EIA data

2. Real levelized carrying charge rates applicable to new combustion turbine installed cost

- 3. From Page 20
- 4. From Page 21
- 5. Applicable to hydroelectric generation without storage
- 6. FOM split out to apply O&M escalation rate

7. Distribution: Based on marginal % loss of:		
On Peak	2 249%	l oss factor = (1/(1 - On Peak loss%))
Transmission <sup>.</sup>	2.21070	
Step-Up Transformer Loss:	0.103%	Loss factor = (1/(1 - Step up loss%))

### DUKE ENERGY PROGRESS, LLC Certain Hydroelectric Generation without Storage Annual Avoided Capacity Costs

(Note 4)

		Distribution				Trans	Transmission		
		CT Cost		FOM		CT Cost	FOM		
		Annual		Annual		Annual	Annual		
		Capacity (C	CT)	Capacit	ty (FOM)	Capacity (CT)	Capacity (FOM)		
		Cost (1)		Co	st(1)	Cost (1)	Cos	t(1)	
Year		(2020 \$000s) (Nor	minal \$000s)	(2020 \$000s)	(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)	(Nominal \$000s)	
2021	1								
2022	2								
2023	3								
2024	4								
2025	5								
2026	6								
2027	7								
2028	8								
2029	9								
2030	10								
				Distribution			Transmission		
		Ca	pacity (CT)	Capacity (FOM)	Capacity Cost	Capacity (CT)	Capacity (FOM)	Capacity Cost	
2 Year Present Value	e (Note 2)		\$54,353	\$3,397	\$57,750	\$53,186	\$3,324	\$56,509	
10 Year Present Valu	ue (Note 2)	5	\$220,551	\$14,613	\$235,163	\$215,813	\$14,299	\$230,111	

Notes

 Annual Capacity Cost (Nominal \$) = Annual Capacity Cost ('20 \$) escalated at an annual rate of Annual CT cost portion of Capacity Cost from Page 13 escalated at an annual rate of Annual FOM portion of Capacity Cost from Page 13 escalated at an annual rate of Annual escalation starts in 2021
 Present values are derived using a discount rate of 6.59%

3. Capacity value is included starting with the first year

4. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

# DUKE ENERGY PROGRESS, LLC Certain Hydroelectric Generation without Storage (Note 7) Capacity Credits Variable Rate Based on 2021-2022 Costs

<ol> <li>Avoided Capacity Cost Present Value of 2020-2021 (Note 1)</li> </ol>	Distribution (Note 6) \$57,750	Transmission (Note 6) \$56,509
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$2,570	\$2,515
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$30,839	\$30,176

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM		Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	0%	70%	30%		0%	70%	30%
5. Seasonal Allocation of annu L3 x L4	ual capacity cost	\$0	\$21,587	\$9,252		\$0	\$21,123	\$9,053
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit (\$ L5/L6	/KW)	\$0.00	\$95.94	\$41.12		\$0.00	\$93.88	\$40.23
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	(cents/KWH) 0	0.00	26.43	11.33	-	0.00	25.86	11.08

Dec - Mar

7-9

19-2

<u>Notes</u> 1. From Page 14

<ol> <li>Ordinary annuity</li> <li>Capacity Hour De</li> </ol>	factor where i = finition:	(	1.0 an	659 d n =	^(1/12)-1 24 mor	l)*100 = nths		0.5332%
	(Period definitions are stated in terms o	hour-ending)						
Ì	Stipulated Capacity		DEC				DEP	
			AM Period	PMF	Period		AM Period	PM Period
		Months	On Peak	On	Peak	Months	On Peak	On Peak
	Summer	Jul Aug		47	20	had A sum		47.00

Dec - Ma

4. Based on LOLH

5. Rating for new combustion turbine

Winter

6. \$ in 000s except as noted

7. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

19-21

# DUKE ENERGY PROGRESS, LLC Certain Hydroelectric Generation without Storage (Note 7) Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$235,163	Transmission (Note 6) \$230,111
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$2,658	\$2,601
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$31,897	\$31,211

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	0%	70%	30%	0%	70%	30%
5. Seasonal Allocation of ann L3 x L4	ual capacity cost	\$0	\$22,328	\$9,569	\$0	\$21,848	\$9,363
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$0.00	\$99.23	\$42.53	\$0.00	\$97.10	\$41.62
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Credits	(cents/KWH)	0.00	27.34	11.72	0.00	26.75	11.46

<u>Notes</u> 1. From Page 14

2. Ordinary annuity	factor where i =	(	1.0 ar	)659 ^( nd n =	1/12)-1)*100 120 months	=		0.5332%	
3. Capacity Hour De	efinition: (Period definitions are stated in terms)	of hour-ending)							
	Stipulated Capacity		DEC			DEP			
		Months	AM Period On Peak	PM Peri On Pea	od k Mon	ths	AM Period On Peak	PM Period On Peak	
	Summer	Jul Aug		17 20	Jul /	\ug		17 20	
	Winter	Dec - Mar	7-9	19-21	Dec -	Mar	7-9	19-21	

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

7. For certain hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017.

## E-100, Sub 167

## REDACTED Exhibit 2 Rerun - (1-24-21) Page 17

## DUKE ENERGY PROGRESS, LLC All Other Hydroelectric Generation without Storage Annual Avoided Capacity Costs

		Distri	bution		Trans	nsmission	
		CT Cost	F	OM	CT Cost	F	MC
		Annual	Ar	inual	Annual	An	nual
		Capacity (CT)	Capaci	ity (FOM)	Capacity (CT)	Capacit	ty (FOM)
		Cost (1)	Co	st(1)	Cost (1)	Co	st(1)
Year		(2020 \$000s) (Nominal \$000s	) (2020 \$000s)	(Nominal \$000s)	(2020 \$000s) (Nominal \$000s)	(2020 \$000s)	(Nominal \$000s)
2021	1						
2022	2						
2023	3						
2024	4						
2025	5						
2026	6						
2027	7						
2028	8						
2029	9						
2030	10						
			Distribution			Transmission	
		Capacity (CT)	Capacity (FOM)	Capacity Cost	Capacity (CT)	Capacity (FOM)	Capacity Cost
2 Year Present Value (I	Note 2)	\$0	\$0	\$0	\$0	\$0	\$0
10 Year Present Value	(Note 2)	\$141,192	\$9,615	\$150,806	\$138,159	\$9,408	\$147,567

## Notes

1. Annual Capacity Cost (Nominal \$) = Annual Capacity Cost ('20 \$) escalated at an annual rate of 

 Annual CT cost portion of Capacity Cost from Page 13 escalated at an annual rate of
 0.86%

 Annual FOM portion of Capacity Cost from Page 13 escalated at an annual rate of
 0.86%

 Annual scalation starts in 2021
 2.50%

 2.
 Present values are derived using a discount rate of
 6.59%

3. Capacity value is included starting with the first year of capacity need

# DUKE ENERGY PROGRESS, LLC All Other Hydroelectric Generation without Storage Capacity Credits Variable Rate Based on 2021-2022 Costs

1. Avoided Capacity Cost Present Value of 2020-2021 (Note 1)	 (Note 6) \$0	Transmission (Note 6) \$0
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$0	\$0
<ol> <li>Annual Avoided Capacity Cost L2 x 12 months</li> </ol>	\$0	\$0

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM	Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	0%	70%	30%	0%	70%	30%
5. Seasonal Allocation of ann L3 x L4	ual capacity cost	\$0	\$0	\$0	\$0	\$0	\$0
6. Rating -MW (Note 5)		225	225	225	225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8. Seasonal Peak Hours		248	363	363	248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	(cents/KWH)	0.00	0.00	0.00	0.00	0.00	0.00

<u>Notes</u> 1. From Page 17

2. Ordinary annuity	factor where i =	(	1.0659 and n =	^(1/12)- 24 mor	1)*100 = hths	0.5332%	
3. Capacity Hour De	finition: (Period definitions are stated in terms of	hour-ending)					
	Stinulated Canacity		DEC			DEP	

Stipulated Capacity	DEC		DEP			
		AM Period	PM Period		AM Period	PM Period
	Months	On Peak	On Peak	Months	On Peak	On Peak
Summer	Jul Aug		17 20	Jul Aug		17 20
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

# DUKE ENERGY PROGRESS, LLC All Other Hydroelectric Generation without Storage Capacity Credits 10 Year Fixed Based on 2021-2030 Costs

1. Avoided Capacity Cost Present Value of 2021-2030 (Note 1)	Distribution (Note 6) \$150,806	Transmission (Note 6) \$147,567
2. Monthly Avoided Capacity Cost L1 x (A/P) (Note 2)	\$1,705	\$1,668
3. Annual Avoided Capacity Cost L2 x 12 months	\$20,455	\$20,015

SEASONAL CREDITS	(Note 3)	Summer Months PM	Winter Months AM	Winter Months PM		Summer Months PM	Winter Months AM	Winter Months PM
4. Seasonal Allocation (Note	4)	0%	70%	30%		0%	70%	30%
5. Seasonal Allocation of ann L3 x L4	ual capacity cost	\$0	\$14,318	\$6,136		\$0	\$14,011	\$6,005
6. Rating -MW (Note 5)		225	225	225		225	225	225
7. Seasonal Capacity Credit ( L5/L6	\$/KW)	\$0.00	\$63.64	\$27.27		\$0.00	\$62.27	\$26.69
8. Seasonal Peak Hours		248	363	363		248	363	363
9. Seasonal Capacity Credits L7/L8 * 10	s (cents/KWH) 00	0.00	17.53	7.51	-	0.00	17.15	7.35

<u>Notes</u> 1. From Page 17

2. Ordinary annuity	factor where i =	(	1.0659 and n =	^(1/12)-1)*100 = 120 months	0.5332%				
3. Capacity Hour Definition:									
(	(Period definitions are stated in terms of	nour-enaing)	850						

Stipulated Capacity	DEC			DEP			
		AM Period	PM Period		AM Period	PM Period	
	Months	Un Peak	On Peak	Months	UN Peak	On Peak	
Summer	Jul Aug		17 20	Jul Aug		17 20	
Winter	Dec - Mar	7-9	19-21	Dec - Mar	7-9	19-21	

4. Based on LOLH

5. Rating for new combustion turbine

6. \$ in 000s except as noted

## DUKE ENERGY PROGRESS, LLC

Allowance For Working Capital (\$ 000)

		<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	Source (Note 4)
1.	Materials & Supplies (Production)	\$639,908	\$677,587	\$628,022	\$233,460	\$170,991	P 227, L7
2.	Fuel Stock	\$312,175	\$262,287	\$242,761	\$220,024	\$247,793	P 227, L1
3.	Production O&M	\$2,960,771	\$2,691,453	\$2,400,718	\$2,676,688	\$2,755,291	P 320-323, L80
4.	Burned Fuel Cost And PP (Note 1)	1,950,809	1,774,979	1,787,420	2,122,220	1,848,268	pg 320-323, L5,25,45, 63, 76
5.	Nonfuel Production O&M (L3-L4)	\$1,009,962	\$916,474	\$613,298	\$554,468	\$907,023	
6.	Nonfuel Related Allowance For Working Capital L1 x 8.57% (Note 2)	\$54,840	\$58,069	\$53,821	\$20,008	\$14,654	
7.	Allowance For Working Capital As a % Of Nonfuel Production O&M L6/L5	5.43%	6.34%	8.78%	3.61%	1.62%	
8.	5 Year Average For Working Capital	as a % of Nonfuel	Production O&N	Л			5.16%
9.	Fuel Related Allowance for Working Capital L2x 8.57% (Note 2)	\$26,753	\$22,478	\$20,805	\$18,856	\$21,236	
10.	Allowance For Working Capital As a % Of Burned Fuel L9/L4	1.37%	1.27%	1.16%	0.89%	1.15%	
11.	5 Year Average For Working Capita	l as a % of Burned	I Fuel			1.17%	
12.	Weighted Average For Working Cap	oital For Fuel and (	O&M (Note 3)				1.45%

### Notes:

Steam Fuel + Nuclear Fuel + Other Fuel + Purchased Power
 Pre-Tax Rate of Return on Capital

3. Weights Based on Average Breakdown of Avoided Cost Between Fuel and Variable O&M Fuel: 93%

Variable O&M:

Weighted Average = (Average Line 8 \* Variable O&M Weight) + (Average Line 11 \* Fuel Weight) 4. Data From FERC Form 1, Annual Issues

7%

## DUKE ENERGY PROGRESS, LLC

## General / Intangible Plant Loading Factor (\$ 000)

Description	<u>2015</u> <u>2016</u> <u>2017</u>		<u>2017</u>	2018	<u>2019</u>	Source (Note 2)				
<ol> <li>Electric Plant in Service (Note 1)</li> <li>General Plant</li> <li>Intangible Plant</li> </ol>	\$23,443,409 \$658,514 \$386,719	\$26,123,596 \$626,322 \$408,346	\$27,243,900 \$668,008 \$498,613	\$28,901,006 \$641,694 \$527,370	\$32,725,008 \$695,951 \$628,365	P 206-7, L 104-ARO P 206-7, L 99 P 204-5, L 5				
4. Plant in Service Adj for Gen/ Int Plant	\$22,398,176	\$25,088,928	\$26,077,279	\$27,731,942	\$31,400,692	-				
Functionalized Plant Balances										
<ol> <li>5. Production Demand (Note 1)</li> <li>6. Transmission</li> <li>7. Distribution</li> </ol>	\$14,484,302 \$2,352,701 \$5,561,173	\$16,719,992 \$2,482,661 \$5,886,275	\$17,221,495 \$2,619,582 \$6,236,202	\$18,022,454 \$2,764,724 \$6,944,764	\$20,912,899 \$2,990,450 \$7,497,343	P 206-7, L 46 P 206-7, L 58 P 206-7, L 75				
2019 Unit Cost Functionaliz <u>General</u> Production Demand 18%	<u>Intangible</u> 51%		Unit Cost Analys	sis for 2019 COS	3					
<u>Gen / Int Plant Adder (Note 3)</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Average</u>				
Production Demand	2.19%	1.93%	2.18%	2.14%	2.14%	2.11%				
<u>Notes</u> 1. Values are net of ARO-related balances FF1 pg 206-7 (Lines 15,24,34,44,57,74,98) 2. Data From FERC Form 1, Annual Issues 3. Formula:										

(General Plant x General Plant Unit Cost Functionalization %) -unctionalized Plant Balance + /(Functionalized Plant Balance)

## REVISED DEC PUBLIC ANNUALIZED EXHIBIT 5

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Page 1 of 5

### DUKE ENERGY CAROLINAS, LLC Proposed Rates (Annualized) Uncontrolled Solar Generation 1.06

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

Line No.	Description		Variable Rate	Long-Term Rates	_
			Cents per KWH	Cents per KWH	-
1	Energy Credit	Summer Premium Peak	3.41	3.34	(a)1
2	Energy Credit	Summer PM Peak	2.84	3.11	(a)2
3	Energy Credit	Summer Off Peak	2.71	2.83	(a)3
4	Energy Credit	Winter Premium Peak	3.74	4.11	(a)4
5	Energy Credit	Winter AM Peak	3.02	3.65	(a)5
6	Energy Credit	Winter PM Peak	2.91	3.41	(a)6
7	Energy Credit	Winter Off Peak	2.60	2.91	(a)7
8	Energy Credit	Shoulder Peak	2.98	3.03	(a)8
9	Energy Credit	Shoulder Off Peak	2.32	2.30	(a)9
10					
11	Capacity Credit	Summer PM	0.00	1.37	(b)1
12	Capacity Credit	Winter AM	0.00	6.37	(b)2
13	Capacity Credit	Winter PM	0.00	2.06	(b)3
14					
15	Annualized Energ	lý	2.68	2.81	
16	Annualized Capa	city	0.00	0.39	
17	Annualized Total		2.68	3.20	-

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.28	3.22	(a)1
19	Energy Credit	Summer PM Peak	2.73	3.00	(a)2
20	Energy Credit	Summer Off Peak	2.65	2.77	(a)3
21	Energy Credit	Winter Premium Peak	3.61	3.98	(a)4
22	Energy Credit	Winter AM Peak	2.94	3.55	(a)5
23	Energy Credit	Winter PM Peak	2.83	3.32	(a)6
24	Energy Credit	Winter Off Peak	2.54	2.85	(a)7
25	Energy Credit	Shoulder Peak	2.92	2.97	(a)8
26 27	Energy Credit	Shoulder Off Peak	2.29	2.27	(a)9
28	Capacity Credit	Summer PM	0.00	1.33	(b)1
29	Capacity Credit	Winter AM	0.00	6.19	(b)2
30 31	Capacity Credit	Winter PM	0.00	2.00	(b)3
32	Annualized Energ	lý	2.62	2.75	
33	Annualized Capac	city	0.00	0.38	
34	Annualized Total		2.62	3.13	

**NOTE:** Calculation of Annualized Numbers Annualized Energy

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / ( e ) Annualized Capacity ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / ( e )

Annualized Total (Annualized Energy + Annualized capacity	)
---	---

	Energy Hours	
Summer Premium Peak	341	(c )1
Summer PM Peak	511	(c)2
Summer Off Peak	2,077	(c)3
Winter Premium Peak	187	(c)4
Winter AM Peak	125	(c)5
Winter PM Peak	311	(c)6
Winter Off Peak	1,537	(c)7
Shoulder Peak	1,158	(c)8
Shoulder Off Peak	2,514	(c )9
	8,760	(e)

	Capacity	
	Hours	
Summer PM	248	(d)1
Winter AM	363	(d)2
Winter PM	363	(d)3
	974	

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### DUKE ENERGY CAROLINAS, LLC Proposed Rates (Annualized) Swine or Poultry Waste Generation 1.06

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

Line No.	Description		Variable Rate	Fixed Long-Term Rates 10 Years	•
			Cents per KWH	Cents per KWH	•
1	Energy Credit	Summer Premium Peak	3.52	3.45	(a)1
2	Energy Credit	Summer PM Peak	2.95	3.22	(a)2
3	Energy Credit	Summer Off Peak	2.82	2.94	(a)3
4	Energy Credit	Winter Premium Peak	3.85	4.22	(a)4
5	Energy Credit	Winter AM Peak	3.13	3.76	(a)5
6	Energy Credit	Winter PM Peak	3.02	3.52	(a)6
7	Energy Credit	Winter Off Peak	2.71	3.02	(a)7
8	Energy Credit	Shoulder Peak	3.09	3.14	(a)8
9	Energy Credit	Shoulder Off Peak	2.43	2.41	(a)9
10					
11	Capacity Credit	Summer PM	3.07	3.18	(b)1
12	Capacity Credit	Winter AM	14.28	14.77	(b)2
13	Capacity Credit	Winter PM	4.62	4.78	(b)3
14					
15	Annualized Energ	ly .	2.79	2.92	
16	Annualized Capa	city	0.87	0.90	
17	Annualized Total		3.66	3.82	

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	-
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	_
			Cents per KWH	Cents per KWH	-
18	Energy Credit	Summer Premium Peak	3.39	3.33	(a)1
19	Energy Credit	Summer PM Peak	2.84	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.76	2.88	(a)3
21	Energy Credit	Winter Premium Peak	3.72	4.09	(a)4
22	Energy Credit	Winter AM Peak	3.05	3.66	(a)5
23	Energy Credit	Winter PM Peak	2.94	3.43	(a)6
24	Energy Credit	Winter Off Peak	2.65	2.96	(a)7
25	Energy Credit	Shoulder Peak	3.03	3.08	(a)8
26	Energy Credit	Shoulder Off Peak	2.40	2.38	(a)9
27					
28	Capacity Credit	Summer PM	2.99	3.09	(b)1
29	Capacity Credit	Winter AM	13.89	14.36	(b)2
30	Capacity Credit	Winter PM	4.49	4.65	(b)3
31					
32	Annualized Energ	lý	2.73	2.86	
33	Annualized Capa	city	0.85	0.88	
34	Annualized Total	÷	3.58	3.74	-

**NOTE:** Calculation of Annualized Numbers

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e)Annualized Energy 

 Annualized Capacity
 ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e)

 Annualized Total (Annualized Energy + Annualized capacity)

	Energy Hours	
Summer Premium Peak	341	(c )1
Summer PM Peak	511	(c)2
Summer Off Peak	2,077	(c )3
Winter Premium Peak	187	(c )4
Winter AM Peak	125	(c )5
Winter PM Peak	311	(c)6
Winter Off Peak	1,537	(c)7
Shoulder Peak	1,158	(c )8
Shoulder Off Peak	2,514	(c )9
	8,760	(e)

	Capacity		
	Hours		
Summer PM	248	(d)1	
Winter AM	363	(d)2	
Winter PM	363	(d)3	
	974		

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## DUKE ENERGY CAROLINAS, LLC Proposed Rates (Annualized)

All but Swine or Poultry Waste Generation, Uncontrolled Solar Generation and Hydroelectric Generation without Storage Performance Adjustment Factor: 1.06

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	-
1	Energy Credit	Summer Premium Peak	3.52	3.45	(a)1
2	Energy Credit	Summer PM Peak	2.95	3.22	(a)2
3	Energy Credit	Summer Off Peak	2.82	2.94	(a)3
4	Energy Credit	Winter Premium Peak	3.85	4.22	(a)4
5	Energy Credit	Winter AM Peak	3.13	3.76	(a)5
6	Energy Credit	Winter PM Peak	3.02	3.52	(a)6
7	Energy Credit	Winter Off Peak	2.71	3.02	(a)7
8	Energy Credit	Shoulder Peak	3.09	3.14	(a)8
9	Energy Credit	Shoulder Off Peak	2.43	2.41	(a)9
10					
11	Capacity Credit	Summer PM	0.00	1.37	(b)1
12	Capacity Credit	Winter AM	0.00	6.37	(b)2
13	Capacity Credit	Winter PM	0.00	2.06	(b)3
14					
15	Annualized Energ	lý	2.79	2.92	
16	Annualized Capa	city	0.00	0.39	
17	Annualized Total		2.79	3.31	-

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.39	3.33	(a)1
19	Energy Credit	Summer PM Peak	2.84	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.76	2.88	(a)3
21	Energy Credit	Winter Premium Peak	3.72	4.09	(a)4
22	Energy Credit	Winter AM Peak	3.05	3.66	(a)5
23	Energy Credit	Winter PM Peak	2.94	3.43	(a)6
24	Energy Credit	Winter Off Peak	2.65	2.96	(a)7
25	Energy Credit	Shoulder Peak	3.03	3.08	(a)8
26 27	Energy Credit	Shoulder Off Peak	2.40	2.38	(a)9
28	Capacity Credit	Summer PM	0.00	1.33	(b)1
29	Capacity Credit	Winter AM	0.00	6.19	(b)2
30 31	Capacity Credit	Winter PM	0.00	2.00	(b)3
32	Annualized Energ	lý	2.73	2.86	
33	Annualized Capac	city	0.00	0.38	
34	Annualized Total		2.73	3.24	

**NOTE:** Calculation of Annualized Numbers

Annualized Energy ((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e) 

 Annualized Capacity
 ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e)

 Annualized Total (Annualized Energy + Annualized capacity)

	Energy Hours	
Summer Premium Peak	341	(c )1
Summer PM Peak	511	(c)2
Summer Off Peak	2,077	(c)3
Winter Premium Peak	187	(c)4
Winter AM Peak	125	(c )5
Winter PM Peak	311	(c)6
Winter Off Peak	1,537	(c)7
Shoulder Peak	1,158	(c)8
Shoulder Off Peak	2,514	(c)9
	8,760	(e)

	Capacity	
	Hours	
Summer PM	248	(d)1
Winter AM	363	(d)2
Winter PM	363	(d)3
	974	

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DUKE ENERGY CAROLINAS, LLC Proposed Rates (Annualized) Certain Hydroelectric Generation without Storage 2.00

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

Line No.	<b>Description</b>		Variable Rate	Long-Term Rates 10 Years	i
			Cents per KWH	Cents per KWH	-
1	Energy Credit	Summer Premium Peak	3.52	3.45	(a)1
2	Energy Credit	Summer PM Peak	2.95	3.22	(a)2
3	Energy Credit	Summer Off Peak	2.82	2.94	(a)3
4	Energy Credit	Winter Premium Peak	3.85	4.22	(a)4
5	Energy Credit	Winter AM Peak	3.13	3.76	(a)5
6	Energy Credit	Winter PM Peak	3.02	3.52	(a)6
7	Energy Credit	Winter Off Peak	2.71	3.02	(a)7
8	Energy Credit	Shoulder Peak	3.09	3.14	(a)8
9	Energy Credit	Shoulder Off Peak	2.43	2.41	(a)9
10					
11	Capacity Credit	Summer PM	5.80	6.00	(b)1
12	Capacity Credit	Winter AM	26.95	27.87	(b)2
13	Capacity Credit	Winter PM	8.72	9.02	(b)3
14					
15	Annualized Energ	lý	2.79	2.92	
16	Annualized Capa	city	1.64	1.70	
17	Annualized Total		4.43	4.62	-

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	
Line No.	<b>Description</b>		Rate	Long-Term Rates 10 Years	
	-		Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.39	3.33	(a)1
19	Energy Credit	Summer PM Peak	2.84	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.76	2.88	(a)3
21	Energy Credit	Winter Premium Peak	3.72	4.09	(a)4
22	Energy Credit	Winter AM Peak	3.05	3.66	(a)5
23	Energy Credit	Winter PM Peak	2.94	3.43	(a)6
24	Energy Credit	Winter Off Peak	2.65	2.96	(a)7
25	Energy Credit	Shoulder Peak	3.03	3.08	(a)8
26	Energy Credit	Shoulder Off Peak	2.40	2.38	(a)9
27					
28	Capacity Credit	Summer PM	5.64	5.83	(b)1
29	Capacity Credit	Winter AM	26.21	27.10	(b)2
30	Capacity Credit	Winter PM	8.48	8.77	(b)3
31					
32	Annualized Energ	lý	2.73	2.86	
33	Annualized Capac	city	1.60	1.65	
34	Annualized Total		4.33	4.51	

Note: For hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017. Calculation of Annualized Numbers

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / ( e ) Annualized Energy Annualized Capacity ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e) Annualized Total (Annualized Energy + Annualized capacity)

	Energy			Capacity	
	Hours			Hours	
Summer Premium Peak	341	(c )1	Summer PM	248	(d)1
Summer PM Peak	511	(c)2	Winter AM	363	(d)2
Summer Off Peak	2,077	(c)3	Winter PM	363	(d)3
Winter Premium Peak	187	(c)4		974	
Winter AM Peak	125	(c )5			
Winter PM Peak	311	(c)6			
Winter Off Peak	1,537	(c)7			
Shoulder Peak	1,158	(c)8			
Shoulder Off Peak	2,514	(c)9			
	8,760	(e)			

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## DUKE ENERGY CAROLINAS, LLC Proposed Rates (Annualized) All Other Hydroelectric Generation without Storage 2.00

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

Line No.	Description		Variable Rate	Fixed Long-Term Rates 10 Years	•
			Cents per KWH	Cents per KWH	•
1	Energy Credit	Summer Premium Peak	3.52	3.45	(a)1
2	Energy Credit	Summer PM Peak	2.95	3.22	(a)2
3	Energy Credit	Summer Off Peak	2.82	2.94	(a)3
4	Energy Credit	Winter Premium Peak	3.85	4.22	(a)4
5	Energy Credit	Winter AM Peak	3.13	3.76	(a)5
6	Energy Credit	Winter PM Peak	3.02	3.52	(a)6
7	Energy Credit	Winter Off Peak	2.71	3.02	(a)7
8	Energy Credit	Shoulder Peak	3.09	3.14	(a)8
9	Energy Credit	Shoulder Off Peak	2.43	2.41	(a)9
10					
11	Capacity Credit	Summer PM	0.00	2.59	(b)1
12	Capacity Credit	Winter AM	0.00	12.02	(b)2
13	Capacity Credit	Winter PM	0.00	3.89	(b)3
14					
15	Annualized Energ	ly .	2.79	2.92	
16	Annualized Capa	city	0.00	0.73	
17	Annualized Total		2.79	3.65	

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	•
Line No.	<b>Description</b>		Variable Rate	Long-Term Rates 10 Years	_
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.39	3.33	(a)1
19	Energy Credit	Summer PM Peak	2.84	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.76	2.88	(a)3
21	Energy Credit	Winter Premium Peak	3.72	4.09	(a)4
22	Energy Credit	Winter AM Peak	3.05	3.66	(a)5
23	Energy Credit	Winter PM Peak	2.94	3.43	(a)6
24	Energy Credit	Winter Off Peak	2.65	2.96	(a)7
25	Energy Credit	Shoulder Peak	3.03	3.08	(a)8
26	Energy Credit	Shoulder Off Peak	2.40	2.38	(a)9
27		0 54	0.00	0.50	
28	Capacity Credit	Summer PM	0.00	2.52	(b)1
29	Capacity Credit	Winter AM	0.00	11.69	(b)2
30	Capacity Credit	Winter PM	0.00	3.78	(b)3
31					
32	Annualized Energ	ly .	2.73	2.86	
33	Annualized Capac	city	0.00	0.71	
34	Annualized Total		2.73	3.57	

**NOTE:** Calculation of Annualized Numbers

Annualized Energy ((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e)Annualized Capacity ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e) Annualized Total (Annualized Energy + Annualized capacity)

	Energy			Capacity	
	Hours			Hours	
Summer Premium Peak	341	(c )1	Summer PM	248	(d)1
Summer PM Peak	511	(c)2	Winter AM	363	(d)2
Summer Off Peak	2,077	(c)3	Winter PM	363	(d)3
Winter Premium Peak	187	(c)4		974	
Winter AM Peak	125	(c )5			
Winter PM Peak	311	(c)6			
Winter Off Peak	1,537	(c)7			
Shoulder Peak	1,158	(c)8			
Shoulder Off Peak	2,514	(c)9			
	8,760	(e)			

## REVISED DEP PUBLIC ANNUALIZED EXHIBIT 5

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### DUKE ENERGY PROGRESS, LLC Proposed Rates (Annualized) Uncontrolled Solar Generation 1.06

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

			Variable	Fixed Long-Term Rates	
Line No.	<b>Description</b>		Rate	10 Years	
			Cents per KWH	Cents per KWH	
1	Energy Credit	Summer Premium Peak	3.35	3.23	(a)1
2	Energy Credit	Summer PM Peak	2.86	2.96	(a)2
3	Energy Credit	Summer Off Peak	2.58	2.78	(a)3
4	Energy Credit	Winter Premium Peak	4.01	4.39	(a)4
5	Energy Credit	Winter AM Peak	2.94	3.30	(a)5
6	Energy Credit	Winter PM Peak	3.32	3.69	(a)6
7	Energy Credit	Winter Off Peak	2.70	3.01	(a)7
8	Energy Credit	Shoulder Peak	2.79	2.93	(a)8
9	Energy Credit	Shoulder Off Peak	2.27	2.34	(a)9
10					
11	Capacity Credit	Summer PM	0.00	0.00	(b)1
12	Capacity Credit	Winter AM	0.00	9.29	(b)2
13	Capacity Credit	Winter PM	0.00	3.98	(b)3
14					
15	Annualized Energ	ly .	2.64	2.81	
16	Annualized Capac	city	0.00	0.55	
17	Annualized Total		2.64	3.36	

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	-
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	_
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.25	3.13	(a)1
19	Energy Credit	Summer PM Peak	2.78	2.87	(a)2
20	Energy Credit	Summer Off Peak	2.54	2.73	(a)3
21	Energy Credit	Winter Premium Peak	3.90	4.26	(a)4
22	Energy Credit	Winter AM Peak	2.88	3.23	(a)5
23	Energy Credit	Winter PM Peak	3.24	3.61	(a)6
24	Energy Credit	Winter Off Peak	2.66	2.96	(a)7
25	Energy Credit	Shoulder Peak	2.75	2.88	(a)8
26	Energy Credit	Shoulder Off Peak	2.24	2.31	(a)9
27					
28	Capacity Credit	Summer PM	0.00	0.00	(b)1
29	Capacity Credit	Winter AM	0.00	9.09	(b)2
30	Capacity Credit	Winter PM	0.00	3.90	(b)3
31					
32	Annualized Energ	lý	2.60	2.76	
33	Annualized Capa	city	0.00	0.54	
34	Annualized Total	÷	2.60	3.30	-

**NOTE:** Calculation of Annualized Numbers

Annualized Energy ((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e)

 Annualized Capacity
 ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e)

 Annualized Total (Annualized Energy + Annualized capacity)

	Energy Hours	
Summer Premium Peak	341	(c )1
Summer PM Peak	341	(c)2
Summer Off Peak	2,247	(c)3
Winter Premium Peak	187	(c)4
Winter AM Peak	249	(c )5
Winter PM Peak	249	(c )6
Winter Off Peak	1,475	(c )7
Shoulder Peak	1,158	(c )8
Shoulder Off Peak	2,514	(c )9
	8,760	(e)

	Capacity	
	Hours	
Summer PM	248	(d)1
Winter AM	363	(d)2
Winter PM	363	(d)3
	974	

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### DUKE ENERGY PROGRESS, LLC Proposed Rates (Annualized) Swine or Poultry Waste Generation 1.06

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

Line No.	Description		Variable Rate	Fixed Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	
1	Energy Credit	Summer Premium Peak	3.59	3.47	(a)1
2	Energy Credit	Summer PM Peak	3.10	3.20	(a)2
3	Energy Credit	Summer Off Peak	2.82	3.02	(a)3
4	Energy Credit	Winter Premium Peak	4.25	4.63	(a)4
5	Energy Credit	Winter AM Peak	3.18	3.54	(a)5
6	Energy Credit	Winter PM Peak	3.56	3.93	(a)6
7	Energy Credit	Winter Off Peak	2.94	3.25	(a)7
8	Energy Credit	Shoulder Peak	3.03	3.17	(a)8
9	Energy Credit	Shoulder Off Peak	2.51	2.58	(a)9
10					
11	Capacity Credit	Summer PM	0.00	0.00	(b)1
12	Capacity Credit	Winter AM	14.01	14.49	(b)2
13	Capacity Credit	Winter PM	6.00	6.21	(b)3
14					
15	Annualized Energ	ly .	2.88	3.05	
16	Annualized Capac	city	0.83	0.86	
17	Annualized Total	· · · · · · · · · · · · · · · · · · ·	3.71	3.91	

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	
Line No.	<b>Description</b>		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.49	3.37	(a)1
19	Energy Credit	Summer PM Peak	3.02	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.78	2.97	(a)3
21	Energy Credit	Winter Premium Peak	4.14	4.50	(a)4
22	Energy Credit	Winter AM Peak	3.12	3.47	(a)5
23	Energy Credit	Winter PM Peak	3.48	3.85	(a)6
24	Energy Credit	Winter Off Peak	2.90	3.20	(a)7
25	Energy Credit	Shoulder Peak	2.99	3.12	(a)8
26	Energy Credit	Shoulder Off Peak	2.48	2.55	(a)9
27					
28	Capacity Credit	Summer PM	0.00	0.00	(b)1
29	Capacity Credit	Winter AM	13.71	14.18	(b)2
30	Capacity Credit	Winter PM	5.87	6.08	(b)3
31					
32	Annualized Energ	ly .	2.84	3.00	
33	Annualized Capac	city	0.81	0.84	
34	Annualized Total		3.65	3.84	

**NOTE:** Calculation of Annualized Numbers Annualized Energy

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e) 

 Annualized Capacity
 ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e)

 Annualized Total (Annualized Energy + Annualized capacity)

	Energy Hours		
Summer Premium Peak	341	(c )1	
Summer PM Peak	341	(c)2	
Summer Off Peak	2,247	(c)3	
Winter Premium Peak	187	(c)4	
Winter AM Peak	249	(c)5	
Winter PM Peak	249	(c)6	
Winter Off Peak	1,475	(c)7	
Shoulder Peak	1,158	(c)8	
Shoulder Off Peak	2,514	(c )9	
	8,760	(e)	

	Capacity	
	Hours	
Summer PM	248	(d)1
Winter AM	363	(d)2
Winter PM	363	(d)3
	974	

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## DUKE ENERGY PROGRESS, LLC Proposed Rates (Annualized)

All but Swine or Poultry Waste Generation, Uncontrolled Solar Generation and Hydroelectric Generation without Storage Performance Adjustment Factor: 1.06

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	_
			Cents per KWH	Cents per KWH	
1	Energy Credit	Summer Premium Peak	3.59	3.47	(a)1
2	Energy Credit	Summer PM Peak	3.10	3.20	(a)2
3	Energy Credit	Summer Off Peak	2.82	3.02	(a)3
4	Energy Credit	Winter Premium Peak	4.25	4.63	(a)4
5	Energy Credit	Winter AM Peak	3.18	3.54	(a)5
6	Energy Credit	Winter PM Peak	3.56	3.93	(a)6
7	Energy Credit	Winter Off Peak	2.94	3.25	(a)7
8	Energy Credit	Shoulder Peak	3.03	3.17	(a)8
9	Energy Credit	Shoulder Off Peak	2.51	2.58	(a)9
10					
11	Capacity Credit	Summer PM	0.00	0.00	(b)1
12	Capacity Credit	Winter AM	0.00	9.29	(b)2
13	Capacity Credit	Winter PM	0.00	3.98	(b)3
14					
15	Annualized Energ	lý	2.88	3.05	
16	Annualized Capa	city	0.00	0.55	
17	Annualized Total		2.88	3.60	•

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.49	3.37	(a)1
19	Energy Credit	Summer PM Peak	3.02	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.78	2.97	(a)3
21	Energy Credit	Winter Premium Peak	4.14	4.50	(a)4
22	Energy Credit	Winter AM Peak	3.12	3.47	(a)5
23	Energy Credit	Winter PM Peak	3.48	3.85	(a)6
24	Energy Credit	Winter Off Peak	2.90	3.20	(a)7
25	Energy Credit	Shoulder Peak	2.99	3.12	(a)8
26 27	Energy Credit	Shoulder Off Peak	2.48	2.55	(a)9
28	Capacity Credit	Summer PM	0.00	0.00	(b)1
29	Capacity Credit	Winter AM	0.00	9.09	(b)2
30 31	Capacity Credit	Winter PM	0.00	3.90	(b)3
32	Annualized Energ	у	2.84	3.00	
33	Annualized Capac	city	0.00	0.54	
34	Annualized Total		2.84	3.54	

**NOTE:** Calculation of Annualized Numbers

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / ( e ) Annualized Energy 

 Annualized Capacity
 ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e)

 Annualized Total (Annualized Energy + Annualized capacity)

	Energy Hours	
Summer Premium Peak	341	(c)1
Summer PM Peak	341	(c)2
Summer Off Peak	2,247	(c)3
Winter Premium Peak	187	(c)4
Winter AM Peak	249	(c)5
Winter PM Peak	249	(c)6
Winter Off Peak	1,475	(c)7
Shoulder Peak	1,158	(c)8
Shoulder Off Peak	2,514	(c)9
	8,760	(e)

	Capacity	
	Hours	
Summer PM	248	(d)1
Winter AM	363	(d)2
Winter PM	363	(d)3
	974	

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### DUKE ENERGY PROGRESS, LLC Proposed Rates (Annualized) Certain Hydroelectric Generation without Storage 2.00

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

				Fixed	
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	
			Cents per KWH	Cents per KWH	-
1	Energy Credit	Summer Premium Peak	3.59	3.47	(a)1
2	Energy Credit	Summer PM Peak	3.10	3.20	(a)2
3	Energy Credit	Summer Off Peak	2.82	3.02	(a)3
4	Energy Credit	Winter Premium Peak	4.25	4.63	(a)4
5	Energy Credit	Winter AM Peak	3.18	3.54	(a)5
6	Energy Credit	Winter PM Peak	3.56	3.93	(a)6
7	Energy Credit	Winter Off Peak	2.94	3.25	(a)7
8	Energy Credit	Shoulder Peak	3.03	3.17	(a)8
9	Energy Credit	Shoulder Off Peak	2.51	2.58	(a)9
10					
11	Capacity Credit	Summer PM	0.00	0.00	(b)1
12	Capacity Credit	Winter AM	26.43	27.34	(b)2
13	Capacity Credit	Winter PM	11.33	11.72	(b)3
14					. ,
15	Annualized Energ	у	2.88	3.05	
16	Annualized Capa	city	1.56	1.62	
17	Annualized Total	<u>.</u>	4.44	4.67	-

## INTERCONNECTED TO: TRANSMISSION SYSTEM

			Variablo	Fixed	-
Line No.	<b>Description</b>		Rate	10 Years	_
			Cents per KWH	Cents per KWH	-
18	Energy Credit	Summer Premium Peak	3.49	3.37	(a)1
19	Energy Credit	Summer PM Peak	3.02	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.78	2.97	(a)3
21	Energy Credit	Winter Premium Peak	4.14	4.50	(a)4
22	Energy Credit	Winter AM Peak	3.12	3.47	(a)5
23	Energy Credit	Winter PM Peak	3.48	3.85	(a)6
24	Energy Credit	Winter Off Peak	2.90	3.20	(a)7
25	Energy Credit	Shoulder Peak	2.99	3.12	(a)8
26	Energy Credit	Shoulder Off Peak	2.48	2.55	(a)9
27					
28	Capacity Credit	Summer PM	0.00	0.00	(b)1
29	Capacity Credit	Winter AM	25.86	26.75	(b)2
30	Capacity Credit	Winter PM	11.08	11.46	(b)3
31					
32	Annualized Energ	ly .	2.84	3.00	
33	Annualized Capa	city	1.53	1.58	_
34	Annualized Total		4.37	4.58	-

Note: For hydroelectric generation without storage where the Qualifying Facility renews a PPA that was in effect as of July 27, 2017. Calculation of Annualized Numbers

((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / ( e ) Annualized Energy Annualized Capacity ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e) Annualized Total (Annualized Energy + Annualized capacity)

	Energy			Capacity	
	Hours			Hours	
Summer Premium Peak	341	(c )1	Summer PM	248	(d)1
Summer PM Peak	341	(c)2	Winter AM	363	(d)2
Summer Off Peak	2,247	(c)3	Winter PM	363	(d)3
Winter Premium Peak	187	(c)4		974	
Winter AM Peak	249	(c)5			
Winter PM Peak	249	(c)6			
Winter Off Peak	1,475	(c)7			
Shoulder Peak	1,158	(c)8			
Shoulder Off Peak	2,514	(c)9			
	8,760	(e)			

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## DUKE ENERGY PROGRESS, LLC All Other Hydroelectric Generation without Storage 2.00

Performance Adjustment Factor:

## INTERCONNECTED TO: DISTRIBUTION SYSTEM

	<b>–</b> • •		Variable	Long-Term Rates	
Line No.	Description		Rate	10 Years	-
			Cents per KWH	Cents per KWH	
1	Energy Credit	Summer Premium Peak	3.59	3.47	(a)1
2	Energy Credit	Summer PM Peak	3.10	3.20	(a)2
3	Energy Credit	Summer Off Peak	2.82	3.02	(a)3
4	Energy Credit	Winter Premium Peak	4.25	4.63	(a)4
5	Energy Credit	Winter AM Peak	3.18	3.54	(a)5
6	Energy Credit	Winter PM Peak	3.56	3.93	(a)6
7	Energy Credit	Winter Off Peak	2.94	3.25	(a)7
8	Energy Credit	Shoulder Peak	3.03	3.17	(a)8
9	Energy Credit	Shoulder Off Peak	2.51	2.58	(a)9
10					
11	Capacity Credit	Summer PM	0.00	0.00	(b)1
12	Capacity Credit	Winter AM	0.00	17.53	(b)2
13	Capacity Credit	Winter PM	0.00	7.51	(b)3
14					
15	Annualized Energ	у	2.88	3.05	
16	Annualized Capac	sity	0.00	1.04	
17	Annualized Total		2.88	4.09	-

## INTERCONNECTED TO: TRANSMISSION SYSTEM

				Fixed	•
Line No.	Description		Variable Rate	Long-Term Rates 10 Years	_
			Cents per KWH	Cents per KWH	
18	Energy Credit	Summer Premium Peak	3.49	3.37	(a)1
19	Energy Credit	Summer PM Peak	3.02	3.11	(a)2
20	Energy Credit	Summer Off Peak	2.78	2.97	(a)3
21	Energy Credit	Winter Premium Peak	4.14	4.50	(a)4
22	Energy Credit	Winter AM Peak	3.12	3.47	(a)5
23	Energy Credit	Winter PM Peak	3.48	3.85	(a)6
24	Energy Credit	Winter Off Peak	2.90	3.20	(a)7
25	Energy Credit	Shoulder Peak	2.99	3.12	(a)8
26 27	Energy Credit	Shoulder Off Peak	2.48	2.55	(a)9
28	Capacity Credit	Summer PM	0.00	0.00	(b)1
29	Capacity Credit	Winter AM	0.00	17.15	(b)2
30 31	Capacity Credit	Winter PM	0.00	7.35	(b)3
32	Annualized Energ	V	2.84	3.00	
33	Annualized Capad	city	0.00	1.02	
34	Annualized Total	·	2.84	4.02	•

**NOTE:** Calculation of Annualized Numbers

Annualized Energy ((a1 \* c1) + (a2 \* c2) + (a3 \* c3) + (a4 \* c4) + (a5 \* c5) + (a6 \* c6) + (a7 \* c7) + (a8 \* c8) + (a9 \* c9)) / (e)Annualized Capacity ((b1 \* d1) + (b2 \* d2) + (b3 \* d3)) / (e) Annualized Total (Annualized Energy + Annualized capacity)

	Energy			Capacity	
	Hours			Hours	
Summer Premium Peak	341	(c )1	Summer PM	248	(d)1
Summer PM Peak	341	(c)2	Winter AM	363	(d)2
Summer Off Peak	2,247	(c)3	Winter PM	363	(d)3
Winter Premium Peak	187	(c)4		974	
Winter AM Peak	249	(c )5			
Winter PM Peak	249	(c)6			
Winter Off Peak	1,475	(c)7			
Shoulder Peak	1,158	(c)8			
Shoulder Off Peak	2,514	(c)9			
	8,760	(e)			

## VERIFICATION

STATE OF NORTH CAROLINA **COUNTY OF MECKLENBURG** 

DOCKET NO. E-100, SUB 167

The undersigned, Glea A. Snider, being first duly swom, deposes and says that he is Director. Integrated Resource Planning & Analytics: that he has read the foregoing Supplemental Filing of Revised Energy Rate Calculations and Updated Avoided Energy Rates of Duke Energy Carolinas, LLC and Duke Energy Progress. LLC and knows the contents thereof, that the same are true of his own knowledge, except as to those matters stated on information and belief, and as to those matters, he believes them to be true.

ken A. Snider

Signed and sworn to before me this day by

Date: 2-12-2021

Official Signature of Notary

reggy Ho 1 ton, Notary Public

Notary's printed

My commission expires: 12-22-2021

I signed this notarial certificate on 2-12-2021 according to the emergency video notarization requirements contained in G.S. 10B-25.

Notary Public location during video notarization: UAKC County

Stated physical location of principal during video notarization: Un i on County



## CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC's Supplemental Filing of Revised Energy Rate Calculations and Updated Avoided Energy Rates, in Docket No. E-100, Sub 167, has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1<sup>st</sup> Class Postage Prepaid, properly addressed to parties of record.

This, the 12<sup>th</sup> day of February, 2021.

Kendnik C. Jerstress

Kendrick C. Fentress Associate General Counsel Duke Energy Corporation P.O. Box 1551/NCRH 20 Raleigh, North Carolina 27602 Tel. 919.546.6733 Kendrick.Fentress@duke-energy.com