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March 28, 2018

### VIA ELECTRONIC FILING AND HAND DELIVERY

Ms. M. Lynn Jarvis, Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, North Carolina 27699-4300

### Re: Duke Energy Carolinas, LLC's REPS Cost Recovery Rider and 2017 Compliance Report – Supplemental Testimony and Exhibits Docket No. E-7, Sub 1162

Dear Ms. Jarvis:

Enclosed for filing with the North Carolina Utilities Commission please find Duke Energy Carolinas, LLC's ("DEC" or the "Company") Supplemental Testimony and Revised Exhibit Nos. 1 and 2 of Megan W. Jennings and Supplemental Testimony and Revised Exhibit Nos. 1, 2, 4, and 5 of Veronica I. Williams in connection with the referenced matter. As with the originally-filed versions of the exhibits, certain information contained in Revised Jennings Exhibit No. 2, Revised Williams Exhibit No. 1, Page 1, and Revised Williams Exhibit No. 2, Page 2, is confidential, proprietary, and commercially sensitive, and DEC respectfully requests that this information be treated confidentially pursuant to N.C. Gen. Stat. §132-1.2. Parties to the docket may contact the Company to obtain copies pursuant to an appropriate confidentiality agreement. Revised Page 5 and Revised Page 6 of Jennings Exhibit No. 1, and Revised Williams Exhibit No. 2, Pages 1 and 3, and Revised Williams Exhibit Nos. 4 and 5 do not contain confidential information.

Please do not hesitate to contact me if you have any questions.

Sincerely,

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Kendrick C. Fentress

Enclosures

cc: Parties of Record

### BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

### DOCKET NO. E-7, SUB 1162

In the Matter of	)	
Application of Duke Energy Carolinas, LLC for Approval of Renewable Energy and Energy Efficiency Portfolio Standard (REPS) Compliance Report and Cost Recovery Rider Pursuant to N.C. Gen. Stat. 62-133.8 and Commission Rule R8-67	) ) )	SUPPLEMENTAL TESTIMONY OF MEGAN W. JENNINGS

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# <u> Mar 28 2018</u>

### 1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Megan W. Jennings, and my business address is 400 South
Tryon Street, Charlotte, North Carolina.

# 4 Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS 5 MATTER BEFORE THE NORTH CAROLINA UTILITIES 6 COMMISSION?

7 A. Yes. I filed direct testimony on behalf of Duke Energy Carolinas, LLC
8 (the "Company") in this matter on March 7, 2018.

### 9 Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL 10 TESTIMONY?

A. The purpose of my supplemental testimony is to update the North Carolina
Utilities Commission on information presented in the exhibits filed with
my direct testimony.

### 14 Q. WHAT UPDATES NEED TO BE MADE TO THE EXHIBITS 15 FILED WITH YOUR DIRECT TESTIMONY?

16 Line No. 3 on Confidential Jennings Exhibit No. 2 filed with my direct A. 17 testimony contained a formula error resulting in an understatement in total 18 cost of \$810.659, comprising an avoided cost component of \$772,148 and 19 an incremental REPS recovery cost component of \$38,511. This error 20 affected the January 1, 2017 through December 31, 2017 test period 21 amounts only. Confidential Revised Jennings Exhibit No. 2 filed with this 22 supplemental testimony reflects corrections to amounts on Line No. 3, and 23 to the corresponding subtotals and totals shown on Line Nos. 105, 129,

171 and 177. Also filed with this supplemental testimony are Revised
 Page No. 5 and Revised Page No. 6 of Jennings Exhibit No. 1, the 2017
 Compliance Report. Tables in section Nos. IV and V are updated to
 incorporate the corrections noted above.

5 The adjustments noted above are also identified in the 6 supplemental testimony of Veronica I. Williams and reflected in Revised 7 Williams Exhibit Nos. 1, 2, 4, and 5, filed in this docket.

### 8 Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

9 A. Yes.

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	ANNUALIZED TOTAL CAPACITY AND ENERGY RATES											
	(CENTS PER KWH)											
Docket No.:	E-100 Sub 148 (Current)	E-100, Sub 140	E-100, Sub 136	E-100, Sub 127	E-100, Sub 117	E-100, Sub 106						
Year filed:	2016	2014	2012	2010	2008	2006						
Variable Rate	3.26	4.32	4.98	5.48	6.4	5.4						
5 Year	N/A	4.52	5.19	5.63	6.39	5.46						
10 Year	3.86	5.15	5.52	6.28	6.42	5.51						
15 Year	N/A	5.62	5.84	6.63	6.56	5.64						

### IV. ACTUAL TOTAL AND INCREMENTAL COSTS INCURRED IN 2017

Actual costs incurred in 2017 for REPS compliance were comprised of the following cost of energy purchases and the purchase of various types of RECs, solar distributed generation at Duke Energy Carolinas-owned facilities, and other reasonable and prudent costs incurred to meet the requirements of the statute.

Actual Costs Incurred	Energy and REC Costs	Other	Total Costs
Total costs incurred	\$83,205,440	\$1,363,452	\$84,568,892
Avoided costs	\$65,328,730	\$0	\$65,328,730
Incremental costs	\$17,876,710	\$1,363,452	\$19,240,162

### V. ACTUAL INCREMENTAL COSTS COMPARISON TO THE ANNUAL COST CAP AS OF THE PREVIOUS CALENDAR YEAR

Account TypeTotal 2016 Year- end number of Retail Accounts(1)Annual Per- Account Cost CapTotal Annual Co Cap	st
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<sup>&</sup>lt;sup>(1)</sup> Includes number of retail accounts for Duke Energy Carolinas and its Wholesale REPS customers

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Account Type	Total 2016 Year- end number of Retail Accounts <sup>(1)</sup>	Annual Per- Account Cost Cap	Total Annual Cost Cap			
Residential	1,843,033	\$27	\$49,761,891			
General	258,596	\$150	\$38,789,400			
Industrial	5,130	\$1,000	\$5,130,000			
	Total Annual	\$ 93,681,291				
	Actual Increm	\$ 19,240,162				

### VI. STATUS OF COMPLIANCE WITH REPS REQUIREMENTS

Pursuant to N.C. Gen. Stat. § 62-133.8(b) for Duke Energy Carolinas Retail and N.C. Gen. Stat. § 62-133.8(c) for the Companyls Wholesale REPS customers, the REPS requirement for calendar year 2017 is set at 6% of 2016 North Carolina retail sales. In order to comply with the combined REPS obligation for Duke Energy Carolinas Retail and its Wholesale REPS customers, the Company submitted 3,627,191 RECs, including 20,076 Senate Bill 886 (I SB886I) RECs each of which counts for two poultry waste and one general REC. Accordingly, the Company submitted the equivalent of 3,667,343 RECs for compliance, representing 6% of combined 2016 retail megawatt-hour sales of 61,122,331. Details of the composition of RECs retired to meet the total REPS compliance requirement are contained in Section I. of this report.

Pursuant to N.C. Gen. Stat. § 62-133.8(d), the REPS requirement for calendar year 2017 is at least 0.14% of the total electric power in kilowatt hours sold to retail electric customers in the prior calendar year in the State, or an equivalent amount of energy, shall be supplied by a combination of new solar electric facilities and new metered solar thermal energy facilities. As a result, 85,576 solar RECs were used to meet the Solar Set-Aside Requirement. 467,674 additional solar RECs were retired toward compliance with the General REPS Requirement (the total REPS requirement net of the solar, poultry, and swine set-aside obligations).

In its October 16, 2017 Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief (2017 Delay Order) in Docket No. E-100, Sub 113, the Commission further delayed for one year the Swine Waste Set-Aside Requirement, which will now commence in compliance year 2018. In addition, the 2017 Delay Order lowered the 2017 Poultry Waste Set-Aside Requirement to 170,000 MWh state-wide, maintaining the same level as the 2016 requirement, and delayed the subsequent increases by one year.

Jennings Exhibit No. 2 Page 1 of 7 March 28, 2018

**Compliance Costs EMF Period Billing Period** September 1, 2018 - August 31, 2019 January 1, 2017 - December 31, 2017 **Total Units RECs** Total Units Total Cost Total Cost (A) (B) (A) (B) Line No. RECs RECs **Renewable Resource** only per Unit **Total Cost** per Unit **Total Cost** 

**REDACTED VERSION** 

DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162

Jennings Exhibit No. 2 Page 2 of 7 March 28, 2018 Mar 28 2018

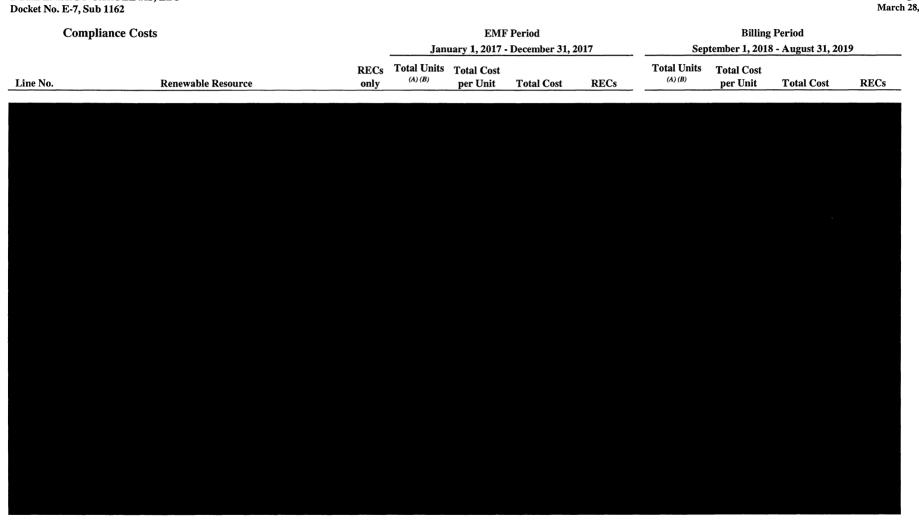
DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 **Compliance Costs** EMF Period **Billing Period** January 1, 2017 - December 31, 2017 September 1, 2018 - August 31, 2019 **RECs** Total Units Total Cost Total Units Total Cost (A) (B) (A) (B) **Renewable Resource** RECs RECs only per Unit **Total Cost** per Unit **Total Cost** 

Line No.

**REDACTED VERSION** 

Jennings Exhibit No. 2 Page 3 of 7 March 28, 2018

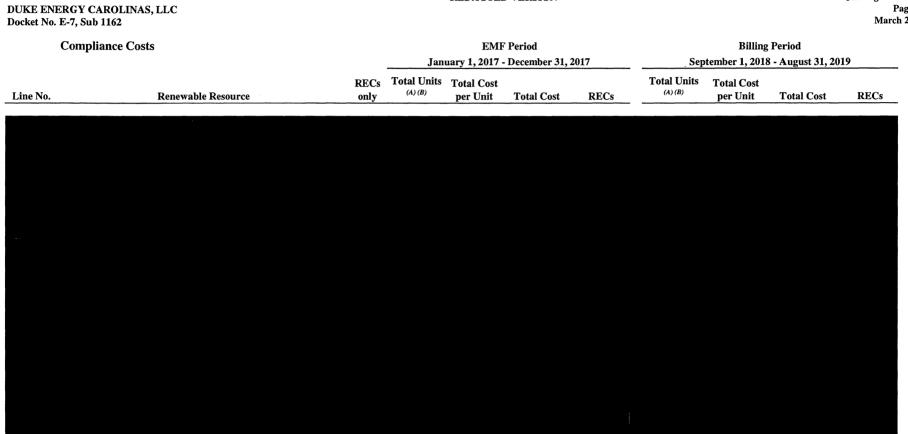
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DUKE ENERGY CAROLINAS, LLC

Jennings Exhibit No. 2 Page 4 of 7 March 28, 2018



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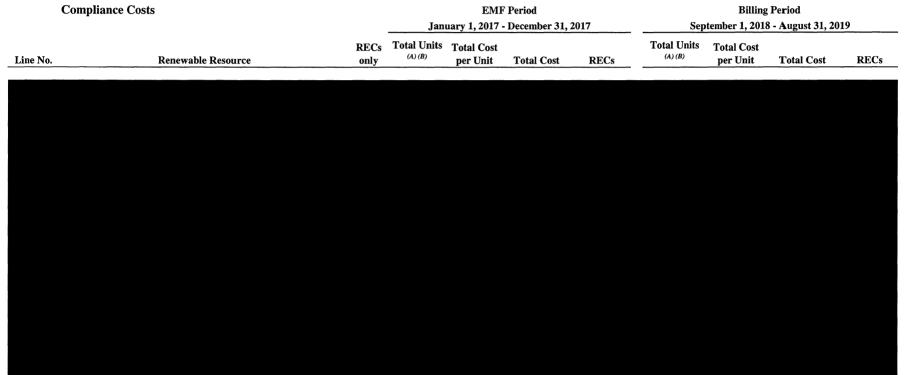
Jennings Exhibit No. 2 Page 5 of 7 March 28, 2018

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**Compliance** Costs EMF Period **Billing Period** January 1, 2017 - December 31, 2017 September 1, 2018 - August 31, 2019 **RECs** Total Units Total Cost **Total Units Total Cost** (A) (B) (A) (B) Line No. **Renewable Resource** RECs only per Unit **Total Cost** RECs per Unit **Total Cost** 

DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 REDACTED VERSION

Jennings Exhibit No. 2 Page 6 of 7 March 28, 2018



DUKE ENERGY CAROLINAS, LLC

Docket No. E-7, Sub 1162

REDACTED VERSION

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Mar 28 2018

**Compliance Costs EMF** Period **Billing Period** January 1, 2017 - December 31, 2017 September 1, 2018 - August 31, 2019 **RECs** Total Units Total Cost **Total Units Total Cost** (A) (B) (A) (B) Line No. **Renewable Resource** only per Unit **Total Cost** RECs per Unit **Total Cost** RECs 172 Other Incremental (see Jennings Exhibit No. 3 for Incremental Cost worksheet) 797,661 \$ 1,155,500 \$ 173 Billing Period estimated receipts related to contract performance \$ (1,000,000) Note 1 Mote 1 174 Solar Rebate Program (see Jennings Exhibit No. 3 for cost detail) \$ \$ 844,000 -Research (see Jennings Exhibit No. 3 for Research cost detail) 175 565,791 755.000 \$ \$ 176 **Total Other Incremental and Research Cost** 1,363,452 1,754,500 177 178 EMF Period actual credits for receipts related to contracts - to Revised Williams Exhibit No.4 - footnote (3) \$ 1,090,096 Note 1 Note 1: EMF Period contract receipts are not included in the under/overcollection

calculation on Williams Exhibit No. 2, instead they are credited directly to customer class on Revised Williams Exhibit No. 4. Estimated contract receipts are included in Billing Period total other incremental cost as a reduction in REPS charges proposed for the Billing Period.

Footnotes:

**DUKE ENERGY CAROLINAS, LLC** 

Docket No. E-7, Sub 1162

### BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

### DOCKET NO. E-7, SUB 1162

In the Matter of	)	
Application of Duke Energy Carolinas, LLC	)	
for Approval of Renewable Energy and	)	SUPPLEMENTAL
Energy Efficiency Portfolio Standard (REPS)	)	TESTIMONY OF VERONICA I. WILLIAMS
Compliance Report and Cost Recovery Rider Pursuant to N.C. Gen. Stat. § 62-133.8 and	)	VERONICA I. WILLIAMS
Commission Rule R8-67	)	

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# <u> Mar 28 2018</u>

### 1 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Veronica I. Williams, and my business address is 550 South
Tryon Street, Charlotte, North Carolina.

## 4 Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN THIS 5 MATTER BEFORE THE NORTH CAROLINA UTILITIES 6 COMMISSION?

7 A. Yes. I filed direct testimony on behalf of Duke Energy Carolinas, LLC
8 (the "Company") in this matter on March 7, 2018.

### 9 Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL 10 TESTIMONY?

11 A. The purpose of my supplemental testimony is to update the North Carolina 12 Utilities Commission on information presented in the exhibits filed with 13 my direct testimony. The Company determined that Confidential Jennings 14 Exhibit No. 2, filed in this docket on March 7, 2018, contained a formula 15 error. The updated information presented in my supplemental testimony 16 and exhibits reflects the Company's correction of that error.

### 17 Q. WHAT UPDATES NEED TO BE MADE TO THE EXHIBITS 18 FILED WITH YOUR DIRECT TESTIMONY?

A. As described by Company witness Megan W. Jennings in her
supplemental testimony filed in this docket, an adjustment is required to
correct total cost for the January 1, 2017 through December 31, 2017 test
period (or "EMF Period").

# 1Q.PLEASE IDENTIFY THE CORRECTIONS INCORPORATED IN2THE REVISED EXHIBITS FILED WITH THIS SUPPLEMENTAL3TESTIMONY AND THE RESULTING DIFFERENCES WHEN4COMPARED TO THE SAME EXHIBITS FILED PREVIOUSLY5WITH YOUR DIRECT TESTIMONY.

6 A. Confidential Revised Williams Exhibit No. 1, Page 1 reflects the increase 7 to total cost of \$810,659, with \$772,148 of this total reflected in the avoided cost component, and \$38,511 reflected in the incremental cost 8 9 component included for recovery in the REPS rider. Revised Williams 10 Exhibit No. 2, Page 1 shows the increase in incremental REPS cost for the 11 EMF period of \$38,511 (Line No. 4), with \$29,108 allocated to DEC retail 12 customers and included in the total shown on Line No. 8. The DEC retail 13 portion carries forward to, and is included in totals shown on, Revised 14 Confidential Williams Exhibit No. 2, Page 2, and Revised Williams 15 Exhibit No. 2, Page 3. The result is a final decrease in the overcollection 16 for the EMF Period of \$29,108 before interest, and \$33,960 including 17 interest, as reflected on Revised Williams Exhibit No. 2, Page 3. Revised 18 Williams Exhibit No. 4 includes the decrease in the overcollection by 19 customer class, and results in no changes to the monthly riders proposed 20 for the Residential and Industrial customer classes, and a \$0.01 increase in 21 the monthly rider proposed for the General service customer class. 22 Revised Williams Exhibit No. 5 is the proposed tariff sheet including the

update to the proposed General service customer class rider identified above.

- The following tables show the currently-proposed monthly REPS rider charges, and a comparison to the monthly REPS rider charges proposed and filed with my direct testimony on March 7, 2018 – with and without the regulatory fee applied.
- 7 Excluding regulatory fee:

Customer class	Current REVISED proposed REPS rider	Proposed REPS rider filed March 7, 2018	Difference - increase/ (decrease)
	(a)	(b)	(a) – (b)
Residential	\$ 0.21	\$ 0.21	
General	\$ 1.58	\$ 1.57	\$ 0.01
Industrial	\$(3.23)	\$(3.23)	

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9 Including regulatory fee:

Customer class	Current REVISED proposed REPS rider	Proposed REPS rider filed March 7, 2018	Difference - increase/ (decrease)
	(a)	(b)	(a) – (b)
Residential	\$ 0.21	\$ 0.21	
General	\$ 1.58	\$ 1.57	\$ 0.01
Industrial	\$(3.23)	\$(3.23)	

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### 11 Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?

12 A. Yes.

### **REDACTED VERSION**

DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 Compliance Costs for the EMF Period January 1, 2017 to December 31, 2017

19 20 21 Revised Williams Exhibit No. 1 Page 1 of 2 March 28, 2018 OFFICIAL COPY

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Line No.	Renewable Resource	RECs	MWh (Energy)	Total Cost	Avoided Cost	Incremental Cost	Avoided Cost Recovered in Fuel Cost Adjustment Rider	
						\$ 17,876,710		
9	Other Incremental			\$ 797,661		\$ 797,661		(g)
10	Solar Rebate Program			\$ -	Revised Jennings Exhibit No. 2	\$ -		(h)
11	Research			\$ 565,791	-	\$ 565,791	-	(i)
12	Total			\$ 84,568,892		\$ 19,240,162	(below) =	
				Jennings Exhibit No.	. 2	Incremental	Percent of Total	
	Incremental cost category					Cost	Incremental Cost	
					-			
15	Total					\$ 19,240,162	(above)	
	Allo anto in anomantal angle of gale				···· ··· · · · · · · · · · · · · · · ·	-1	-	
	Allocate incremental cost of sola	ir resources be	etween solar o	compnance requir	ement and gener	al compliance re	quirement:	
16								
17								
18								

### DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 For the Period January 1, 2017 to December 31, 2017

Revised Williams Exhibit No. 2 Page 1 of 3 March 28, 2018

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Allocate Incremental Cost per Customer Class - EMF Period

	Combined North Carolina Retail and Wholesale												
-	Annual Rider												
		Total Unadjusted Number of	Adjustment for Self- supplied	Total Adjusted Number of		Cap per Customer	<b>A</b>	لم و معالم الم	Cost Cap Allocation	In	Actual cremental Costs for REPS		nnual Per unt Charge
Line No.	Customer Class	Accounts <sup>(1)</sup>	Requirements <sup>(1)</sup>	Accounts <sup>(1)</sup>	A	Class Account		nual Adjusted evenue Cap	Factor		Recovery	1100	(2)
1	Residential	1,855,382	457,381	1,398,001	\$	27	\$	37,746,027	53.13%	\$	10,222,299	\$	7.31
2	General	260,469	64,034	196,435	\$	150	\$	29,465,250	41.48%	\$	7,980,819	\$	40.63
3	Industrial	5,082	1,253	3,829	\$	1,000	\$	3,829,000	5.39%	\$	1,037,045	\$	270.84
4	Total	2,120,933	522,668	1,598,265	-		\$	71,040,277	100.00%	\$	19,240,162	(b)	

Revised Williams Exhibit No. 1, page 1 Line No. 12

### Calculate NC Retail-only annual REPS cost per Customer Class - EMF Period:

		Total Adjusted						-	
		Number of			Iı	icremental	Percent of	NC Retail Percent	
		Accounts - DEC	An	inual Per Account	Co	sts Allocated	Incremental	of Total	
Line No.	Customer Class	Retail <sup>(1)</sup>		Charge <sup>(2)</sup>	to	DEC Retail	Cost	<b>Incremental Cost</b>	
5	Residential	1,269,531	\$	7.31	\$	9,280,272			
6	General	180,791	\$	40.63	\$	7,345,538			
7	Industrial	3,610	\$	270.84	\$	977,732			
8	Total	1,453,932				17,603,542	(a)	91.49%	(a) / (b
9	Set-aside. Other Inc	remental, Solar Reb	ate. a	and Research	\$	8,377,526	47.59%	Revised Williams	
10	General RECs	)	,		\$	9,226,016	52.41%		
11	Total Incremental C	ost for Retail				17,603,542	·	Line Nos. 13,14	

Notes:

(1) Average number of accounts subject to REPS charge during EMF Period.

(2) Annual per account charges are the result of the allocation of REPS costs between Duke Energy Carolinas Retail customers and the Company's Wholesale REPS customers, and are used only for calculating the total cost obligations of Duke Energy Carolinas Retail customers and the wholesale REPS customers, respectively. Proposed REPS rider charges per account are instead calculated using unadjusted REPS account totals by class - see Williams Ex. No. 4.

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**REDACTED VERSION** 

#### DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 For the Period January 1, 2017 to December 31, 2017

Revised Williams Exhibit No. 2 Page 2 of 3 March 28, 2018

Calculate Set-aside and other incremental costs per customer class - EMF Period:

		North Carolina Retail Only													
Line No.	Customer Class	Total Unadjusted Number of Accounts <sup>(1)</sup>	C	nual Rider Cap per Customer Iss Account	Calculated Annual Revenue Cap	Cost Cap Allocation Factor	Allocated Annual Set-aside, Other Incremental, Solar Rebate Program, and Research Cos								
1	Residential	1,692,708	\$	27	45,703,116	52.73%	\$	4,417,443							
2	General	241,055	\$	150	36,158,250	41.72%	\$	3,494,882							
3	Industrial	4,813	\$	1,000	4,813,000	5.55%	\$	465,201							
4	Total	1,938,576	-		86,674,366		\$	8,377,526							
			=				Revi	sed Williams Ex.							

No. 2 Pg 1 Line No. 9

Calculate General costs per customer class - EMF Period:

				Nortl	h Carolina Reta	il Only			
Line No.	Customer Class	fo	ber of RECs r General pliance <sup>(3) (a)</sup>	% of EE REC supplied by Class <sup>(2)</sup>	REC Requirement supplied by EE by class <sup>(b)</sup>	Number of General RECs net of EE (c) = (a) - (b)	General Cost Allocation Factor (e) = (c) / (d)	(	ated Annual General mental Costs_
5	Residential			40.90%			59.94%	\$	5,530,074
6	General			44.10%			40.27%	\$	3,715,317
7	Industrial			15.00%			-0.21%	\$	(19,375)
8	Total			100.00%			100.00%	\$	9,226,016
Total cos	t allocation by custo	mer cla	ss - EMF Peri	iod: % Incremental					ed Williams Ex. 9g 1 Line No. 10
			Incremental cost by class	REPS cost by class					,
9	Residential	\$	9,947,517	56.51%					
10	General	\$	7,210,199	40.96%					
11	Industrial	\$	445,826	2.53%					
12	Total	\$ Revis	17,603,542 ed Williams Ex.	100.00%	•				
			ed Williams Ex. Pg 1 Line No. 11						

Average number of accounts subject to REPS charge during 2017. (1)

(2) (3) EE allocated to account type according to actual relative contribution by customer class of EE RECs. Total General RECs per note (5) \* "Cost Cap Allocation Factor" by class per line Nos. 1-3 above.



### DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162 For the Period January 1, 2017 to December 31, 2017

**Revised Williams Exhibit No. 2** Page 3 of 3 March 28, 2018

### Calculate Incremental Cost Under/(Over) Collection per Customer Class - EMF Period:

	North Carolina Retail Only															
		Allocated Annual Set- aside, Other Incremental, Solar Rebate Program, and		Allocated Annual General Incremental		Total Incremental		Actual NC Retail REPS Revenues Realized - EMF		Annual REPS EMF - Under/(Over)- Collection, before		Interest on Over-			nnual REPS EMF - 'nder/(Over)-	
Line No.	Account Type	Re	search Cost		Costs		Costs		Period		Interest		collection <sup>(1)</sup>		Collection	
1	Residential	\$	4,417,443	\$	5,530,074	\$	9,947,517	\$	18,864,141	\$	(8,916,624)	\$	(1,486,103)	\$	(10,402,727)	
2	General	\$	3,494,882	\$	3,715,317	\$	7,210,199	\$	12,476,569	\$	(5,266,370)	\$	(877,728)	\$	(6,144,098)	
3	Industrial	\$	465,201	\$	(19,375)	\$	445,826	\$	1,192,210	\$	(746,384)	\$	(124,397)	\$	(870,781)	
4	Total	\$	8,377,526	\$	9,226,016	\$	17,603,542	\$	32,532,920	\$	(14,929,378)	\$	(2,488,228)	\$	(17,417,606)	
		Revise	d Williams Exhibit	Re	vised Williams	Re	vised Williams									
		No. 2	, Pg 2, Line No. 4	Exh	ibit No. 2, Pg 2,		ibit No. 2, Pg 2,									
Notes:					Line No. 8		Line No. 12									

Interest calculated at annual rate of 10% for number months from mid-point of EMF period to mid-point of prospective rider billing period. (1)

#### DUKE ENERGY CAROLINAS, LLC Docket No. E-7, Sub 1162

Revised Williams Exhibit No. 4 Page 1 of 1 March 28, 2018

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Calculate Duke Energy NC Retail monthly REPS rider components:

	North Carolina Retail														
	Total Projected Number of Customer Accounts -Duke			EMF Under/(Over)-			Amendments, Venalties, Change-of-		Total EMF		Monthly EMF		rojected Total Incremental	I	Monthly REPS
Line No.	Class	Retail <sup>(1)</sup>			Collection		control, Etc. (3)	С	osts/(credits)		Rider <sup>(2)</sup>		Costs		Rider <sup>(2)</sup>
1	Residential	1,713,552		\$	(10,402,727)	\$	(563,577)	\$	(10,966,304)	\$	(0.53)	\$	15,315,696	\$	0.74
2	General	243,530		\$	(6,144,098)	\$	(408,494)	\$	(6,552,592)	\$	(2.24)	\$	11,167,611	\$	3.82
3	Industrial	4,715		\$	(870,781)	\$	(25,258)	\$	(896,039)	\$	(15.84)	\$	713,415	\$	12.61
4		1,961,797		\$	(17,417,606)	\$	(997,329)	\$	(18,414,935)			\$	27,196,722	_	
												W	Villiams Ex. No.	-	
	Revised Williams												3, Pg 3		

Revised Williams Ex. No. 2, Pg 3

Compare total annual REPS charges per account to per-account cost caps:

				North	n Carolina Retail						
Line No.	Customer Class	nthly EMF Rider <sup>(2)</sup>	Monthly REPS Rider <sup>(2)</sup>	Combined nthly Rider <sup>(2)</sup>	Regulatory Fee Multiplier	REI in	al Monthly PS Charge Icluding Ilatory Fee	R	Fotal Annual REPS Charge including egulatory Fee	I	Per-Account Cost Cap
5	Residential	\$ (0.53)	\$ 0.74	\$ 0.21	1.001402	\$	0.21	\$	2.52	\$	27.00
6	General	\$ (2.24)	\$ 3.82	\$ 1.58	1.001402	\$	1.58	\$	18.96	\$	150.00
7	Industrial	\$ (15.84)	\$ 12.61	\$ (3.23)	1.001402	\$	(3.23)	\$	(38.76)	\$	1,000.00

Notes:

(1) Projected number of accounts subject to REPS charge during the billing period.

(2) Per account rate calculations apply to Duke Energy Carolinas NC Retail customers only.

(3) Forward 2017 receipts for contract amendments, penalties, change-of-control, etc

Customer Class	G	ntract receipts credited by istomer class	NC retail portion of EMF Period costs - Williams Exhibit No. 2, Pg 1	Allocation to customer class - Williams Exhibit No. 2, Pg 2	amendments, nalties, change-of- control, etc.
Residential			, _ 8	56.51%	\$ (563,577)
General				40.96%	\$ (408,494)
Industrial				2.53%	\$ (25,258)
Total contract payments received - EMF Period	\$	(1,090,096)	\$ (997,330)		\$ (997,329)
			91.49%	-	

Mar 28 2018

Superseding North Carolina Ninth Revised Leaf No. 68

### REPS (NC)

### RENEWABLE ENERGY PORTFOLIO STANDARD RIDER

### APPLICABILITY (North Carolina Only)

Service supplied to the Company's retail customer agreements is subject to a REPS Monthly Charge. This charge is adjusted annually, pursuant to North Carolina General Statute 62-133.8 and North Carolina Utilities Commission Rule R8-67 as ordered by the North Carolina Utilities Commission. This Rider is not applicable to agreements for the Company's outdoor lighting rate schedules, OL, PL, FL, GL, NL, nor for sub metered rate Schedule WC, nor for services defined as auxiliary to another agreement. An auxiliary service is defined as a non-demand metered, nonresidential service, provided on Schedule SGS, at the same premises, with the same service address, and with the same account name as an agreement for which a monthly REPS charge has been applied.

#### APPROVED REPS MONTHLY CHARGE

The Commission has ordered that a REPS Monthly Charge, which includes an Experience Modification Factor (EMF), be included in the customers' bills as follows:

RESIDENTIAL SERVICE AGREEMENTS	
REPS Monthly Charge	\$ 0.74
Experience Modification Factor	(\$ 0.53)
Net REPS Monthly Charge	\$ 0.21
Regulatory Fee Multiplier	1.001402
Total REPS Monthly Charge per agreement per month	\$ 0.21
GENERAL SERVICE AGREEMENTS	
REPS Monthly Charge	\$ 3.82
Experience Modification Factor	(\$ 2.24)
Net REPS Monthly Charge	\$ 1.58
Regulatory Fee Multiplier	1.001402
Total REPS Monthly Charge per agreement per month	\$ 1.58
INDUSTRIAL SERVICE AGREEMENTS	¢ 10 (1
REPS Monthly Charge	\$ 12.61
Experience Modification Factor	(\$ 15.84)
Net REPS Monthly Charge	(\$ 3.23)
Regulatory Fee Multiplier	<u>1.001402</u>
Total REPS Monthly Charge per agreement per month	(\$ 3.23)

### USE OF RIDER

The REPS Billing Factor is not included in the Company's current rate schedules and will apply as a separate charge to each agreement for service covered under this Rider as described above, unless the service qualifies for a waiver of the REPS Billing Factor for an auxiliary service. An auxiliary service is a non-demand metered nonresidential service, on Schedule SGS for the same customer at the same service location.

To qualify for an auxiliary service, not subject to this Rider, the Customer must notify the Company and the Company must verify that such agreement is considered an auxiliary service, after which the REPS Billing Factor will not be applied to qualifying auxiliary service agreements. The Customer shall also be responsible for notifying the Company of any change in service that would no longer qualify the service as auxiliary.

### CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Carolinas, LLC's REPS Cost Recovery Rider and 2017 Compliance Report – Supplemental Testimony and Exhibits, in Docket No. E-7, Sub 1162, 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 28<sup>th</sup> day of March, 2018.

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