

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1229

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 )

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**SUPPLEMENTAL  
TESTIMONY OF MEGAN  
W. JENNINGS**

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

2 A. My name is Megan W. Jennings, and my business address is 400 South  
3 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 (“DEC” or the “Company”) in this matter on February 25, 2020.

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 my  
13 direct testimony, as well as provide an update to the Company’s proposed  
14 animal waste REC sale price calculation resulting from recent discussions  
15 with the Public Staff.

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

18 A. The total cost and total cost per unit amounts reflected on Line No. 4 on  
19 Confidential Jennings Exhibit No. 2 for the January 1, 2019 through  
20 December 31, 2019 experience modification factor (“EMF”) test period  
21 were incorrect. The total number of units and renewable energy certificates  
22 (“REC”) were shown correctly and not affected by the error. The result was  
23 an overstatement of \$158,000 in incremental REPS recovery cost for the

1 January 1, 2019 through December 31, 2019 EMF test period. There is no  
2 effect on quantities or cost for the September 1, 2020 through August 31,  
3 2021 estimated billing period. Details of the error and the corrections  
4 required to amounts originally reported on Line No. 4 of Confidential  
5 Jennings Exhibit No. 2 for the EMF period are as follows: **[BEGIN**  
6 **CONFIDENTIAL]** [REDACTED]  
7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED] **[END**  
15 **CONFIDENTIAL]**. Confidential Revised Jennings Exhibit No. 2 filed  
16 with this supplemental testimony reflects corrections to amounts on Line  
17 No. 4, and to the corresponding subtotals and totals shown on Line Nos.  
18 118, 139, 185, and 191.

19 In addition, during the discovery process, the Company noticed  
20 some minor errors in a few individual input cost items recorded in the solar  
21 rebate program amortization schedule. Correcting these minor errors results  
22 in a change to Line No. 26 on Jennings Exhibit No. 3 for the EMF Period,  
23 “Annual Amortization of Program Administrative Contract Labor & Other

1 Administrative Costs, plus return on unamortized balance,” from [BEGIN  
2 CONFIDENTIAL] [REDACTED] [END CONFIDENTIAL]. This in  
3 turn changes the Total Solar Rebate Program Cost, shown on Line No. 27  
4 of Jennings Exhibit No. 3, for the EMF period from \$886,014 to \$886,071,  
5 a net cost increase of \$57. These corrections can be found on Confidential  
6 Revised Jennings Exhibit No. 3 and are reflected in amounts reported on  
7 Line Nos. 188, 190, and 191 of Confidential Revised Jennings Exhibit No.  
8 2.

9 Also filed with this supplemental testimony is Revised Page No. 6  
10 of Jennings Exhibit No. 1, the 2019 Compliance Report. Tables in section  
11 Nos. IV and V are updated to incorporate the corrections noted above. The  
12 cost adjustments noted above are also identified in the supplemental  
13 testimony of Veronica I. Williams and reflected in Revised Williams  
14 Exhibit Nos. 1, 2, and 4, filed in this docket.

15 **Q. PLEASE DESCRIBE THE UPDATES TO THE COMPANY’S**  
16 **PROPOSED ANIMAL WASTE REC SALE PRICE CALCULATION**  
17 **RESULTING FROM RECENT DISCUSSIONS WITH THE PUBLIC**  
18 **STAFF.**

19 A. Since the Company filed direct testimony in this docket, the Company and  
20 the Public Staff have continued to work together to evaluate the sales prices  
21 of set-aside RECs, as directed by the Commission in its August 15, 2019  
22 *Order Approving REPS and REPS EMF Riders and 2018 REPS*  
23 *Compliance Report* in Docket. No. E-7, Sub 1191. Through these

1 discussions, the Company and the Public Staff have come to an agreement  
2 on a proposed REC sale price calculation that will be used when the  
3 Company, or Duke Energy Progress, LLC, sell animal waste RECs to other  
4 electric suppliers to help those suppliers comply with N.C. Gen. Stat. §§ 62-  
5 133.8(e) and (f).

6 In my direct testimony, the Company proposed that the sale price of  
7 set-aside RECs sold to other electric suppliers should be determined by  
8 taking a weighted average price of all contracts in DEC's and DEP's  
9 combined portfolio that were executed for compliance with the respective  
10 set-aside for which RECs are being sold. In subsequent discussions, the  
11 Public Staff recommended calculating the weighted average price of RECs  
12 from only those contracted facilities that were operational in the combined  
13 portfolio, rather than all executed contracts. The Company agrees with this  
14 recommendation.

15 Also in my direct testimony, the Company proposed an adder to  
16 mitigate the interest DEC is required to pay customers on any REPS EMF  
17 overcollection that includes the proceeds from the sale of set-aside RECs.  
18 This adder would be retained by the Company to mitigate interest paid to  
19 customers in the event of an overcollection for the EMF period, and would  
20 be credited in full to customers in the REPS rider calculation if the Company  
21 is not over collected for the EMF period. The Company's proposed adder  
22 was 10% calculated at 20 months, the amount of time between the mid-  
23 point of the EMF period and the mid-point of the billing period, which is

1 consistent with the interest calculation on other overcollections. The Public  
2 Staff proposed a revision to reduce this over-collection interest mitigation  
3 factor by the Company's prior-year short-term borrowing rate. This revision  
4 would recognize the value that the Company receives from holding the sales  
5 proceeds during the period of time between the sales transaction and when  
6 the funds are credited back to customers during the prospective billing  
7 period. The Company agrees with the Public Staff's proposal.

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

9 A. Yes.

**IV. ACTUAL TOTAL AND INCREMENTAL COSTS INCURRED IN 2019**

REPS compliance costs incurred for calendar year 2019 comprise the cost of energy purchases and the cost of purchases of various types of RECs, the cost of solar distributed generation at Duke Energy Carolinas-owned facilities, and other reasonable and prudent costs incurred to meet the requirements of the REPS statute. In addition, annual Solar Rebate Program costs incurred pursuant to N.C. Gen. Stat. § 62-155 are recovered in the REPS rider as directed in N.C. Gen. Stat. § 62-133.8(h)(1)d.

<b>Actual Costs Incurred</b>	<b>Energy and REC Costs</b>	<b>Other</b>	<b>Total Costs</b>
<b>REPS compliance - avoided cost</b>	\$ 79,364,959	\$ 0	\$ 79,364,959
<b>REPS compliance – incremental cost</b>	\$ 29,350,739	\$ 2,229,681	\$ 31,580,420 (a)
<b>REPS compliance - total cost</b>	<b>\$ 108,715,698</b>	<b>\$ 2,229,681</b>	<b>\$ 110,945,379</b>
<b>Solar Rebate Program cost</b>	\$ 0	\$ 886,071	\$ 886,071 (b)
<b>Incremental REPS compliance costs and Solar Rebate Program costs for REPS rider recovery</b>		(a) + (b) above	<b>\$ 32,466,491</b>

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

<b>Account Type</b>	<b>Total 2018 Year-end number of Retail Accounts<sup>(1)</sup></b>	<b>Annual Per-Account Cost Cap</b>	<b>Total Annual Cost Cap</b>
<b>Residential</b>	1,866,080	\$27	\$ 50,384,167
<b>General</b>	262,147	\$150	\$ 39,322,037
<b>Industrial</b>	4,957	\$1000	\$ 4,957,270
Total annual REPS Compliance cost cap - 2019			<b>\$ 94,663,474</b>
Incremental REPS Compliance costs incurred - 2019			(a) <b>\$ 31,580,420</b>

<sup>(1)</sup> Includes number of retail accounts for Duke Energy Carolinas and its Wholesale REPS customers.

Compliance Costs

Line No.	Renewable Resource	EMF Period				September 1, 2020 - August 31, 2021				
		RECs only	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs
[REDACTED]										



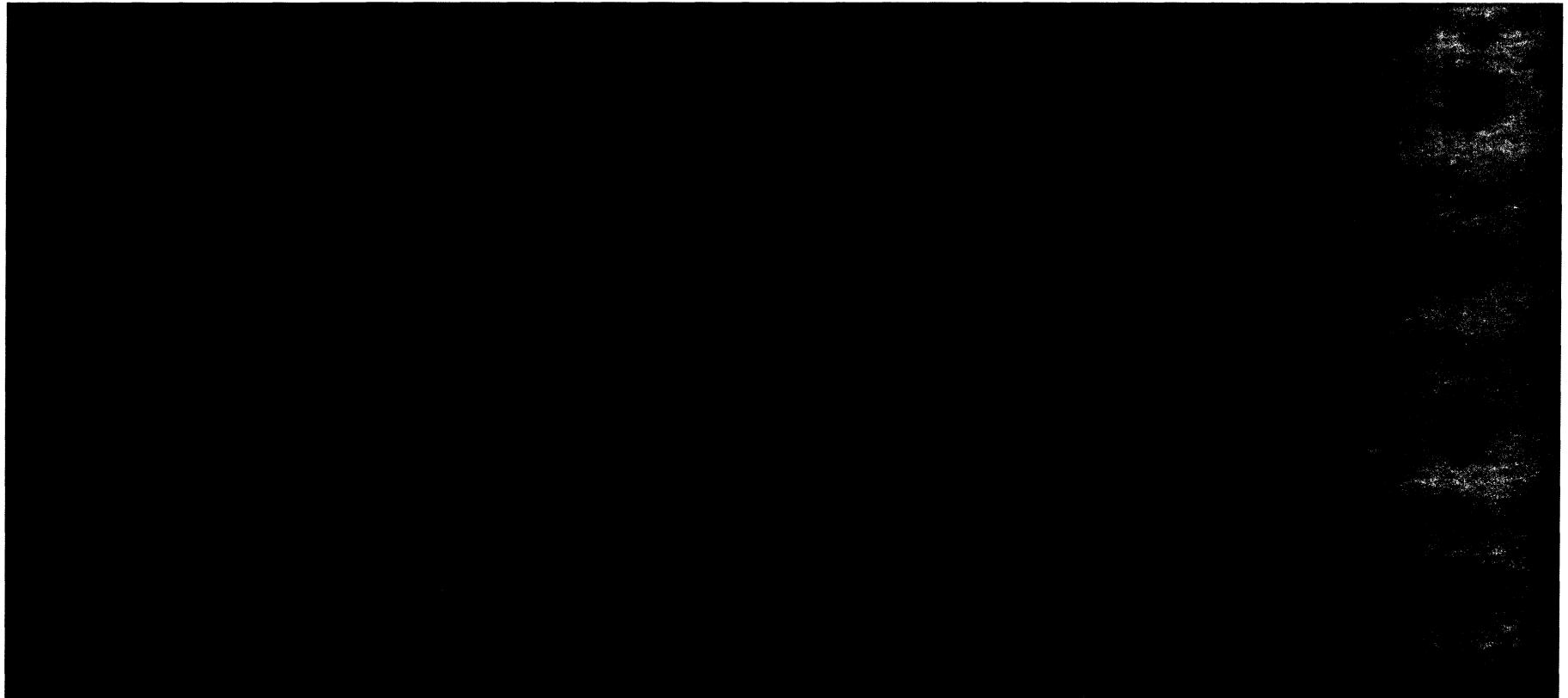
Compliance Costs

EMF Period

January 1, 2019 - December 31, 2019

September 1, 2020 - August 31, 2021

Line No.	Renewable Resource	RECs only	January 1, 2019 - December 31, 2019			September 1, 2020 - August 31, 2021			
			Total Units (A) (B)	Total Cost per Unit	Total Cost	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs



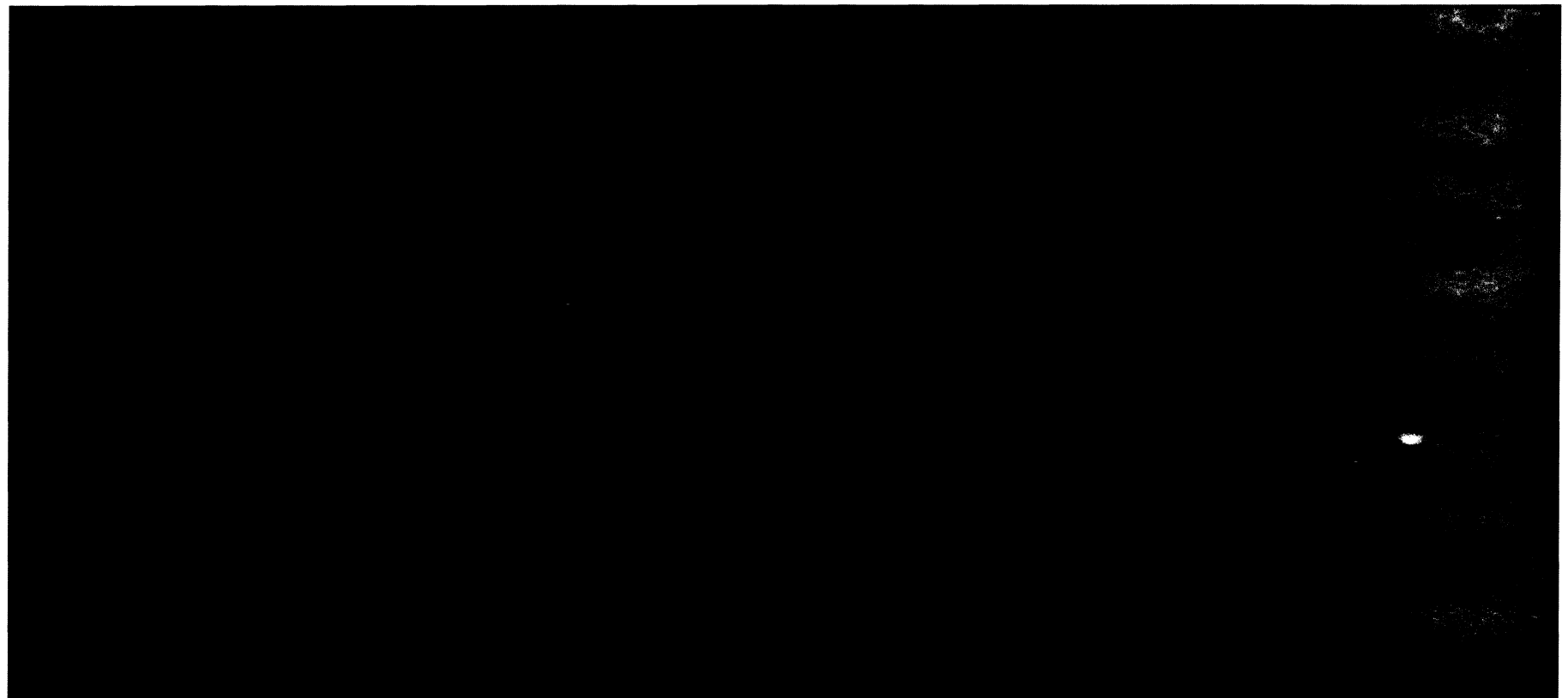
Compliance Costs

EMF Period

January 1, 2019 - December 31, 2019

September 1, 2020 - August 31, 2021

Line No.	Renewable Resource	RECs only	January 1, 2019 - December 31, 2019		September 1, 2020 - August 31, 2021			
			Total Units (A) (B)	Total Cost per Unit	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs



Compliance Costs

Line No.	Renewable Resource	EMF Period				September 1, 2020 - August 31, 2021			
		RECs only	Total Units (A) (B)	Total Cost per Unit	Total Cost	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs



Compliance Costs

Line No.	Renewable Resource	EMF Period				September 1, 2020 - August 31, 2021			
		RECs only	Total Units (A) (B)	Total Cost per Unit	Total Cost	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs



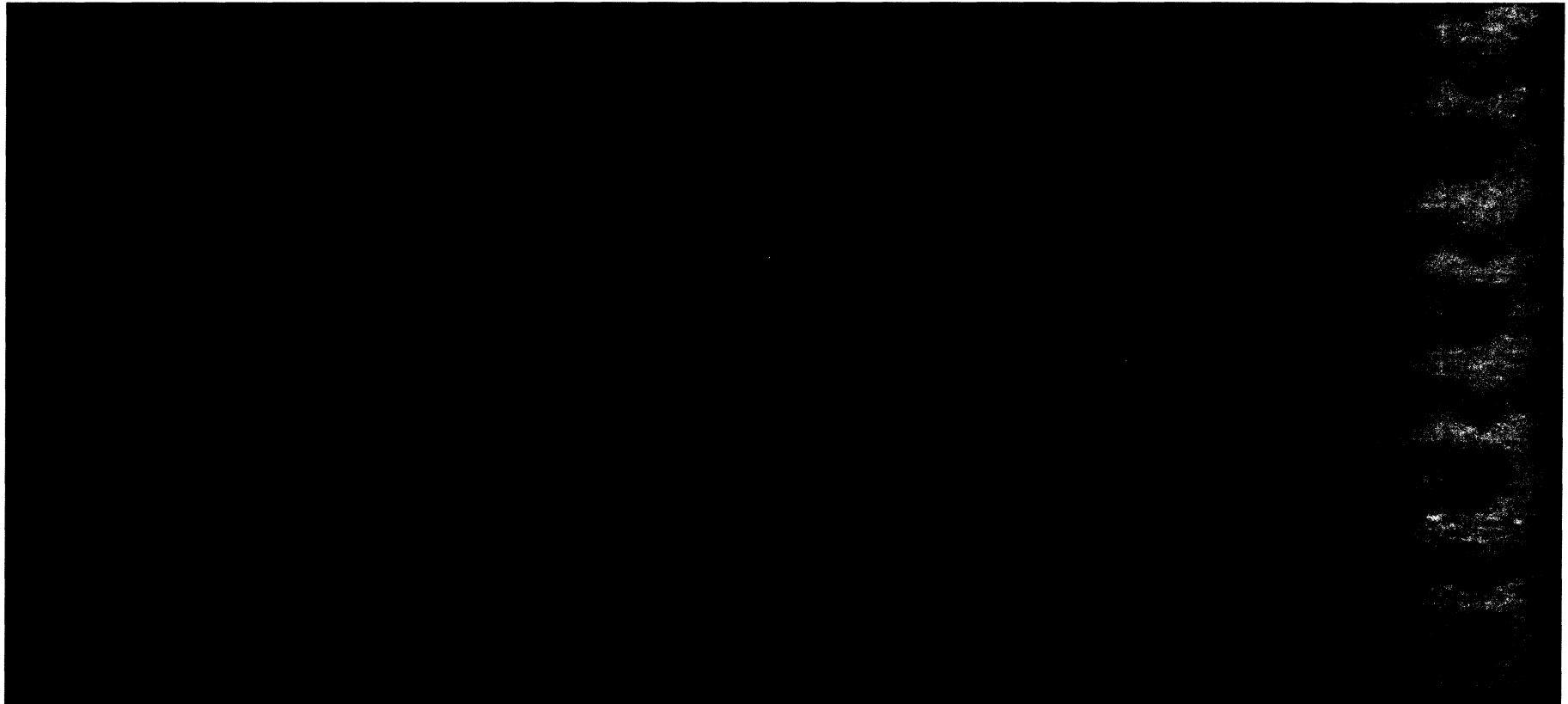
Compliance Costs

EMF Period

January 1, 2019 - December 31, 2019

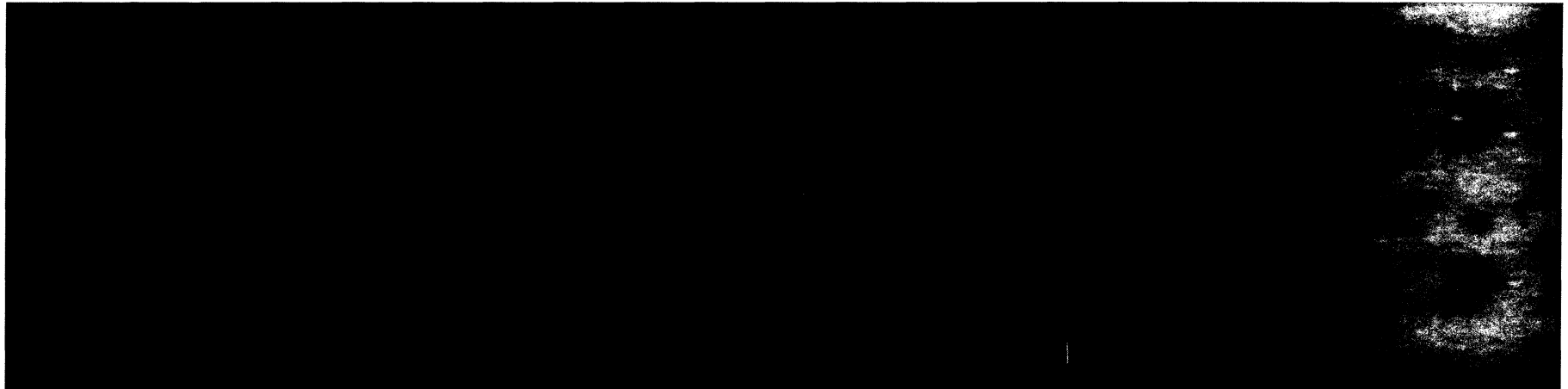
September 1, 2020 - August 31, 2021

Line No.	Renewable Resource	RECs only	January 1, 2019 - December 31, 2019		RECs	September 1, 2020 - August 31, 2021		
			Total Units (A) (B)	Total Cost per Unit		Total Cost	Total Units (A) (B)	Total Cost per Unit



Compliance Costs

Line No.	Renewable Resource	RECs only	EMF Period			September 1, 2020 - August 31, 2021			
			January 1, 2019 - December 31, 2019			Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs



Compliance Costs

Line No.	Renewable Resource	EMF Period				September 1, 2020 - August 31, 2021			
		January 1, 2019 - December 31, 2019							
		RECs only	Total Units (A) (B)	Total Cost per Unit	Total Cost	RECs	Total Units (A) (B)	Total Cost per Unit	Total Cost
186	Other Incremental (see Revised Conf. Jennings Exhibit No. 3 for Incremental Cost worksheet)			\$ 1,406,748			\$ 1,465,200		
187	Billing Period estimated receipts related to contract performance			\$ -	Note 1		\$ (1,000,000)	Note 1	
188	Solar Rebate Program (see Revised Conf. Jennings Exhibit No. 3 for cost detail)			\$ 886,071			\$ 1,744,750		
189	Research (see Revised Conf. Jennings Exhibit No. 3 for Research cost detail)			\$ 822,933			\$ 926,500		
190	<b>Total Other Incremental and Research Cost</b>			<u>\$ 3,115,752</u>			<u>\$ 3,136,450</u>		

192 EMF Period actual credits for receipts related to contracts - to Revised Williams Exhibit No.4 - footnote (3) \$ (1,118,900) Note 1

**Note 1:** EMF Period contract receipts are not included in the under/overcollection calculation on Revised 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:



REDACTED VERSION

EMF Period	Billing Period
January 1, 2019 - December 31, 2019	September 1, 2020 - August 31, 2021

Line No. Incremental Cost Worksheet:

Labor by activity:

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23	<b>Total Other Incremental Cost</b>	\$	1,406,748	\$	1,465,200
<b>Solar Rebate Program Cost Detail (recovery in REPS pursuant to G.S. 62-155(f)): (1)</b>					
24	Annual Amortization of Incentives Provided to Customers, plus return on unamortized balance	\$	841,750	\$	1,636,420
25	Annual Amortization of Program Administrative Labor Costs, plus return on unamortized balance				
26	Annual Amortization of Program Administrative Contract Labor & Other Administrative Costs, plus return on unamortized balance				
27	<b>Total Solar Rebate Program Cost</b>	\$	886,071	\$	1,744,750

(1) All annual Solar Rebate Program costs reflect amortization of incurred costs over 20 years, including a return on the unamortized balance.



REDACTED VERSION

Line No. **Incremental Cost Worksheet:**

EMF Period	Billing Period
January 1, 2019 - December 31, 2019	September 1, 2020 - August 31, 2021

**Research Cost Detail:**

28	CAPER PV Synchronous Generator - Clemson University		
29	Closed Loop Biomass - American Forest Management		
30	Coalition for Renewable Natural Gas Membership		
31	DER Risks to Transformers and Transmission		
32	Eos Energy Storage Technology Development - McAlpine		
33	EPRI - DER Interconnection Standards & Practices		
34	EPRI - PV monitoring project (1-106700)		
35	EPRI Membership		
36	ETO - Mitigation of Transformer High Inrush Current		
37	IEEE 1547 Conformity Assessment Test		
38	Loyd Ray Farms - Duke University		
39	NCSU - Adopting DVAR to Mitigate PV Impact on a Distribution System		
40	NCSU - ETO - Feeder Anti-islanding Detection Using HIL Modeling and Simulation		
41	NCSU - ETO - Grid-forming Battery Energy Storage System Characterization & Testing		
42	NCSU - Interactions of PV Installations with Distribution Systems		
43	NCSU - Membership fee Future Renewable Electric Energy Delivery & Mgmt Center (FREEDM Center)		
44	NREL - Carbon-free resource integration study		
45	PNNL - Dynamic Var Compensator ("DVC") Pilot		
46	Research Triangle Institute - Biogas Utilization in NC		
47	Rocky Mountain Institute - eLab		
48	<b>Total Research Cost</b>	\$ 822,933	\$ 926,500
49	<b>Total Other Incremental Cost</b>	\$ 1,406,748	\$ 1,465,200
50	Projected credits for receipts related to contract amendments/liquidated damages, etc	\$ (1,000,000)	\$ (1,000,000)
51	<b>Total Other Incremental Cost and other credits</b>	\$ 406,748	\$ 465,200
52	<b>Total Solar Rebate Program Cost</b>	\$ 886,071	\$ 1,744,750
53	<b>Total Research Cost</b>	\$ 822,933	\$ 926,500
54	<b>Grand Total - Other Incremental, Solar Rebate Program, and Research Cost, other credits</b>	\$ 3,115,753	\$ 3,136,450
55	EMF Period actual credits for receipts related to contracts - see Note 1	\$ (1,118,900)	
56	<b>Net Other Incremental, Solar Rebate Program and Research Cost</b>	\$ 1,996,853	\$ 3,136,450

**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 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.