



**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

September 9, 2020

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

Re: Docket No. E-7, Subs 1187, 1213, and 1214

Dear Ms. Campbell:

On September 8, 2020, the Public Staff filed a document with the Commission, which it described in the cover letter as the “second supplemental testimony and exhibits of Michael C. Maness, Director, Accounting Division.” Due to an inadvertent error, the testimony attached to that cover letter was in fact a copy of Mr. Maness’s second supplemental testimony originally filed on March 25, 2020 (though the exhibits were the correct exhibits). The Public Staff respectfully requests that the Commission allow that filing to be withdrawn. The Public Staff intended to file the Third Supplemental Testimony of Michael C. Maness. The Public Staff’s apologizes for this error and for any inconvenience it may have caused the Commission or the parties.

Please find attached the third supplemental and settlement testimony and exhibits of Michael C. Maness, Director, Accounting Division. The testimony has not been altered since it was finalized yesterday and the exhibits are the same as those filed yesterday. The Public Staff respectfully requests that the Commission accept this as an errata replacement for the original September 8 filing.

By copy of this letter, we are forwarding copies to all parties of record.

Sincerely yours,

/s/ Dianna W. Downey
Chief Counsel
dianna.downey@psncuc.nc.gov

Executive Director (919) 733-2435	Communications (919) 733-5610	Economic Research (919) 733-2267	Legal (919) 733-6110	Transportation (919) 733-7766
Accounting (919) 733-4279	Consumer Services (919) 733-9277	Electric (919) 733-2267	Natural Gas (919) 733-4326	Water (919) 733-5610

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1213)
)
In the Matter of)
Application of Duke Energy Carolinas,)
LLC for Approval of Proposed Prepaid)
Advantage Program)

DOCKET NO. E-7, SUB 1214)
)
In the Matter of)
Application of Duke Energy Carolinas,)
LLC, for Adjustment of Rates and)
Charges Applicable to Electric Utility)
Service in North Carolina)

DOCKET NO. E-7, SUB 1187)
)
In the Matter of)
Application of Duke Energy Carolinas,)
LLC for an Accounting Order to Defer)
Incremental Storm Damage Expenses)
Incurred as a Result of Hurricanes)
Florence and Michael and Winter Storm)
Diego)

THIRD
SUPPLEMENTAL AND
SETTLEMENT
TESTIMONY OF
MICHAEL C. MANESS
PUBLIC STAFF – NORTH
CAROLINA UTILITIES
COMMISSION

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUBS 1187, 1213, AND 1214

Third Supplemental and Settlement Testimony of Michael C. Maness

On Behalf of the Public Staff

North Carolina Utilities Commission

September 8, 2020

1 **Q. MR. MANESS, WHAT IS THE PURPOSE OF YOUR THIRD**
2 **SUPPLEMENTAL AND SETTLEMENT TESTIMONY?**

3 A. The primary purpose of my Third Supplemental and Settlement
4 Testimony is to present revisions to the accounting and ratemaking
5 adjustments I am recommending in this proceeding to the coal ash
6 clean-up, disposal, and remediation cost amounts proposed for
7 recovery by Duke Energy Carolinas, LLC (DEC). These revisions
8 affect my adjustments to the Company-proposed amortization
9 expenses and unamortized balances associated with both (a) DEC's
10 Asset Retirement Obligation (ARO) – related coal ash activities, and
11 (b) its non-ARO-related coal ash projects. I have provided my
12 revised adjustments to Public Staff witness Michelle M. Boswell for
13 inclusion in her Second Supplemental and Stipulation Exhibit 1, in
14 which she calculates the revised overall change recommended by

1 the Public Staff to the Company's updated proposed base rate
2 revenue increase.

3 Secondly, I am also making certain comments with regard to both
4 (a) the Joint Testimony of Jay W. Oliver and Jane L. McManeus in
5 Compliance with Commission Order Requesting GIP Information,
6 filed by DEC in this proceeding on August 5, 2020 (Additional GIP
7 Testimony), and (b) the Supplemental Testimony and Exhibit of
8 David L. Doss, Jr., filed by DEC in this proceeding on August 28,
9 2020 (Supplemental Doss CCR Testimony).

10 **Q. WHAT COMPANY FILINGS OR COMMISSION ORDERS HAVE**
11 **LED TO THE FILING OF YOUR THIRD SUPPLEMENTAL AND**
12 **SETTLEMENT TESTIMONY?**

13 A. On July 31, 2020, the Company filed with the Commission the
14 Second Agreement and Stipulation of Partial Settlement (Second
15 Partial Stipulation) between it and the Public Staff (Stipulating
16 Parties) regarding certain issues related to this rate proceeding.
17 Among the issues settled were the following:

18 1. The period to be utilized to amortize the deferred costs
19 associated with non-asset retirement obligation-related (non-
20 ARO-related) deferred coal ash capital costs. The Stipulating
21 Parties agreed to an eight-year amortization period, different
22 than either party initially proposed in the proceeding.

1 Also on July 31, 2020, Public Staff witnesses J. Randall Woolridge,
2 James S. McLawhorn, and Michelle M. Boswell each filed Testimony
3 Supporting Second Partial Stipulation, stating that the Second Partial
4 Stipulation is in the public interest and should be approved. Ms.
5 Boswell further testified that once the Public Staff had completed the
6 audit of all revenue, rate base, and expense updates through May
7 31, 2020, the Public Staff would file schedules supporting the Public
8 Staff's recommended revenue requirement.

9 On September 4, 2020, the Commission issued an Order
10 (September 4 Order) granting the Public Staff leave to file testimony
11 and exhibits regarding the Company's Second Supplemental
12 Testimony.

13 **Q. WHY DOES THE SECOND PARTIAL STIPULATION AND THE**
14 **COMPANY'S SECOND SETTLEMENT TESTIMONY**
15 **NECESSITATE THE FILING OF YOUR THIRD SUPPLEMENTAL**
16 **AND SETTLEMENT TESTIMONY?**

17 A. Although the Second Partial Stipulation did not provide for an update
18 of system-level ARO-related or non-ARO-related costs for purposes
19 of this proceeding, each of the stipulated items I have listed herein
20 has a revenue requirement effect on one or the other of the
21 categories of coal ash disposal/remediation costs presented as part
22 of the proceeding.

1 **Q. PLEASE DESCRIBE THE EFFECT THAT THE SECOND PARTIAL**
2 **STIPULATION HAS ON THE AMORTIZATION OF NON-ARO-**
3 **RELATED DEFERRED CAPITAL COSTS RECOMMENDED BY**
4 **THE PUBLIC STAFF.**

5 A. First, the non-ARO-related deferred capital costs are allocated to
6 N.C. retail operations by the production plant-related allocation
7 factor. That factor is numerically different under the SCP
8 methodology than it is under the SWPA methodology. The
9 application of the SCP factor changes the N.C. retail amount of
10 deferred costs to be amortized from the amount initially
11 recommended by the Public Staff.

12 Second, the Public Staff initially recommended a five-year
13 amortization period for the deferred costs, while the Company
14 proposed a ten-year amortization period. Pursuant to the Second
15 Partial Stipulation, the Stipulating Parties have agreed to an eight-
16 year amortization period. Therefore, the Public Staff's
17 recommended amortization expense has been increased, and the
18 Company's proposed amortization period has been decreased.

19 The Public Staff's revised recommended amortization expense and
20 rate base impact are set forth on Maness Second Revised and
21 Second Stipulation Exhibit II, filed with this testimony. No difference
22 now exists between the amount recommended by the Public Staff
23 and that recommended by the Company.

1 **Q. PLEASE DESCRIBE THE EFFECT THAT THE SECOND PARTIAL**
2 **STIPULATION HAS ON THE AMORTIZATION OF ARO-RELATED**
3 **DEFERRED COSTS RECOMMENDED BY THE PUBLIC STAFF.**

4 A. Because of the changes in the Public Staff's recommended cost of
5 capital, as agreed to in the Second Partial Stipulation, I have
6 decreased the Public Staff's recommended amortization period for
7 the deferred costs from 27 to 25 years.

8 **Q. WHY HAVE YOU DECREASED THE RECOMMENDED**
9 **AMORTIZATION PERIOD FOR ARO-RELATED COAL ASH**
10 **DEFERRED COSTS TO 25 YEARS?**

11 A. As noted in the initial testimony of witness Junis, the Public Staff is
12 recommending that 50 percent of the costs for coal combustion
13 residual (CCR) remediation and closure should be paid by the
14 Company's shareholders and the remaining 50 percent be paid by
15 the Company's customers. In my second supplemental testimony
16 filed on March 25, 2020, I recommended an amortization period of
17 27 years, which I testified produced a ratepayer sharing ratio of
18 approximately 49.7% of the costs (based on a present value
19 analysis), which the Public Staff considered sufficiently close to 50%.
20 However, pursuant to the Second Partial Stipulation, the Public Staff
21 is agreeing to capital structure, debt cost and return on equity
22 changes that have the effect of increasing the Public Staff's proposed
23 weighted net-of-tax overall rate of return from 6.144% to 6.563%.

1 This increase, via its influence on the present value analysis,
2 decreases the ratepayer sharing ratio resulting from a 27-year
3 amortization period from approximately 49.7% to approximately
4 47.8%. If, on the other hand, the amortization period is decreased
5 to 25 years, the resulting ratepayer sharing ratio is approximately
6 50.1%. Therefore, the Public Staff believes that given its revised cost
7 of capital recommendation, a 25-year amortization period is more
8 appropriate than a 27-year period.¹

9 My revised recommended ARO-related coal ash cost amortization
10 expense and rate base impact is set forth on Maness Second
11 Revised and Second Stipulation Exhibit I, filed with this testimony.
12 As I have testified to previously, I continue to recommend that the
13 unamortized balance of these costs be excluded from rate base. I
14 also continue to recommend that any unamortized balance of ARO-
15 related coal ash costs that the Commission does decide to include in
16 rate base be presented separately as a regulatory asset outside of
17 working capital.

¹ If the Commission were to approve a rate of return different from that recommended by the Public Staff, the amortization period necessary to achieve a 50%-50% sharing would possibly change. A lower rate of return would tend to necessitate a longer amortization period; a higher rate of return, a shorter one.

1

SUPPLEMENTAL DOSS CCR TESTIMONY

2 **Q. DO YOU HAVE ANY COMMENTS TO MAKE REGARDING THE**
3 **SUPPLEMENTAL CCR TESTIMONY FILED BY COMPANY**
4 **WITNESS DAVID L. DOSS, JR. IN THIS PROCEEDING ON**
5 **AUGUST 28, 2020?**

6 A. Yes. On page 4 of his Supplemental CCR Testimony, Company
7 witness Doss, states:

8 Witness Bednarcik’s Supplemental Testimony notes
9 that the activities identified in Supplemental Exhibit 1
10 were charged to “ARO,” meaning that under the
11 charging guidelines they were classified as Asset 10
12 Retirement Obligations (“ARO”). As such, the costs
13 incurred in connection with the activities I reviewed
14 would properly be capitalized costs. As I explained in
15 my Rebuttal Testimony, under Financial Accounting
16 Standards Board (“FASB”) and Federal Energy
17 Regulatory Commission (“FERC”) guidance, ARO
18 costs are an integral part of the plant asset that gives
19 rise to the ARO, and therefore must be capitalized as
20 part of such asset when the ARO liability is recognized.

21 Although Mr. Doss is correct with regard to the requirements of the
22 FASB’s standards (commonly referred to as GAAP) for financial
23 accounting purposes and the guidance set forth in the FERC Uniform
24 System of Accounts (FERC USOA), in the absence of regulatory
25 assets and liabilities recorded due to regulatory commission rate-
26 setting actions, he fails to acknowledge that this Commission has
27 chosen not to set rates on the basis of expenses calculated and
28 recorded pursuant to GAAP and the FERC USOA (which in their

1 default mode are determined on the basis of a complex process of
2 estimating future costs, determining their present value, and
3 depreciating that present value over time, all the while re-estimating
4 and truing up the costs), but instead on the basis of deferring actual
5 costs for ratemaking purposes as they are incurred, and amortizing
6 those actual costs over time. He also fails to acknowledge that this
7 Commission's use of a different ratemaking methodology itself
8 justifies the recording of regulatory expense on the books in a
9 manner that synchronizes the recognition of expenses for GAAP and
10 FERC USOA purposes with this Commission's ratemaking actions.
11 Therefore, for N.C. retail jurisdictional accounting and ratemaking
12 purposes, the fact that the default GAAP and FERC USOA practices
13 require capitalization of an ARO asset is essentially rendered moot.
14 The GAAP/FERC ARO asset recorded on the books of the Company
15 is not included in rate base, and the depreciation and accretion
16 expenses related to the ARO are reversed for regulatory purposes
17 and deferred to a regulatory asset that is only proposed by the
18 Company for rate base inclusion as cash is actually spent.² In fact,
19 the Company's own workpapers submitted in the general rate case
20 to calculate its proposed deferral and amortization amounts pay no

² It is interesting, and perhaps important for the Commission's analysis, to note that the deferred costs being proposed for rate base treatment by the Company are not a portion of the ARO asset itself at the time of proposed rate base inclusion, but instead represent a portion of the costs that would have otherwise already been written off to expense absent the Commission's approval of deferral.

1 attention whatsoever to the recording or reversal of GAAP/FASB
2 ARO assets and expenses; they simply start in the most direct
3 manner possible for determining the expenses to be recognized for
4 ratemaking purposes: with the actual dollars spent.

5 This approach is thoroughly consistent with the Commission's
6 August 8, 2003 Order in Docket No. E-7, Sub 723, which the
7 Company used to justify its 2016 petition for deferral of coal ash costs
8 in Docket No. E-7, Sub 1110. In the Sub 723 Order, the Commission
9 directly stated, in ordering subparagraph 2.b:

10 That the adoption of SFAS 143 shall have no impact
11 on Duke's operating results or return on rate base for
12 North Carolina retail regulatory purposes and that the
13 net effect of the deferral accounting allowed shall be to
14 reset Duke's North Carolina retail rate base, net
15 operating income, and regulatory return on common
16 equity to the same levels as would have existed had
17 SFAS 143 not been implemented.

18 **ADDITIONAL GIP TESTIMONY**

19 **Q. MR. MANESS, HAVE YOU REVIEWED THE ADDITIONAL GIP**
20 **TESTIMONY AND EXHIBIT FILED BY DEC WITNESSES OLIVER**
21 **AND MCMANEUS ON AUGUST 5, 2020?**

22 **A.** I have read the testimony and performed a general overview of the
23 attached exhibits. I have not performed a detailed analysis of the
24 calculations and input amounts utilized in the exhibits.

1 **Q. DO YOU HAVE ANY COMMENTS REGARDING THE TESTIMONY**
2 **OR EXHIBITS?**

3 A. I have one comment regarding the exhibits, which is that they do not
4 appear to reflect the impact of any accumulated deferred income
5 taxes (ADIT) related to incremental Grid Improvement Plan (GIP)
6 investment. In my opinion, in order to present a complete picture of
7 the impacts of GIP investment on the revenue requirement, the
8 impacts of ADIT on rate base should be included.

9 Additionally, I would like to reiterate the recommendation made in my
10 previous testimony in this proceeding that no amortization period be
11 decided in this case. Given that (a) there is no “natural” amortization
12 period that suggests itself, as there is with the sale of hydro facilities,
13 for example, and (b) we do not at this time know what the complete
14 facts and circumstances of the Company’s situation will be at the
15 time of the first rate case proceeding in which deferred GIP costs are
16 presented for amortization, it makes better sense to wait to decide
17 on the reasonable period until the facts and circumstances are
18 clearer.

19 **Q. DOES THIS COMPLETE YOUR THIRD SUPPLEMENTAL AND**
20 **SETTLEMENT TESTIMONY?**

21 A. Yes, it does.

DUKE ENERGY CAROLINAS
Docket No. E-7, Subs 1187, 1213, and 1214
North Carolina Retail Operations
ADJUSTMENT TO DEFERRED ARO-RELATED
ENVIRONMENTAL COSTS
For the Test Year Ended December 31, 2018
(in Thousands)

Public Staff
Maness Second Revised and Second Stipulation Exhibit I
Schedule 1

Line No.	Item	NC Retail Amount
Income statement impact		
1	Balance for Amortization	\$ 261,242 1/
2	Years to Amortize	<u>25 2/</u>
3	Annual amortization per Public Staff (L1 / L2)	10,450
4	Annual amortization per Company	<u>75,693 3/</u>
5	Public Staff adjustment to amortization expense (L3 - L4)	<u>\$ (65,243)</u>
6	Statutory tax rate	<u>23.35025% 4/</u>
7	Public Staff adjustment to income taxes (-L5 x L6)	<u>\$ 15,234</u>
Rate base impact		
8	Coal Ash Balance at July 31, 2020 per Public Staff (L1)	\$ 261,242
9	Less annual amortization (-L3)	<u>(10,450)</u>
10	Annualized Coal Ash Deferral Balance per Public Staff (L8 + L9)	250,792
11	Coal Ash Deferral Balance per Company filings	<u>302,772 5/</u>
12	Public Staff annualization adjustment to coal ash deferral balance (L10 - L11)	(51,980)
13	Adjustment to remove remaining coal ash deferral balance from rate base (-L10)	<u>(250,792)</u>
14	Total Public Staff adjustment to regulatory assets and liabilities (L12 + L13)	<u>\$ (302,772)</u>
15	Adjustment to ADIT (-L14 x L6)	<u>\$ 70,698</u>

- 1/ Maness Second Revised and Second Stipulation Exhibit I, Schedule 1-1, Line 32, Column (k).
2/ Amortization period recommended by Public Staff to achieve equitable sharing.
3/ McManeus Second Settlement Exhibit 1, NC-1101, Page 1 of 1, ARO column, Line 7.
4/ NCUC E-1, Item 10, NC-0104 - 2019 Calculation of Tax Rates - Statutory Tax Rate, Line 10 (unrounded).
5/ McManeus Second Settlement Exhibit 1, NC-1101, Page 1 of 1, ARO column, Line 18.

DUKE ENERGY CAROLINAS
Docket No. E-7, Subs 1187, 1213, and 1214
North Carolina Retail Operations

Public Staff
Maness Second Revised and Second Stipulation Exhibit I
Schedule 1-1

AMORTIZATION SCHEDULE FOR DEFERRED
ARO-RELATED ENVIRONMENTAL COSTS

For the Test Year Ended December 31, 2018
(in Thousands)

Line No.	Description	Duke Energy Carolinas Coal Ash Spend			Duke Energy Carolinas Coal Ash Deferral (North Carolina)							
		System Spend per Company 1/	Public Staff Adjustments 2/	System Spend per Public Staff 3/	% to NC for Spend 4/	Beginning Balance 5/	NC Spend 6/	Ending Balance 7/	Deferred Cost of Debt 8/	Deferred Cost of Equity 9/	Total Return 10/	Ending Balance 11/
		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1	Dec-17							\$ -				
2	Jan-18	\$ 17,379	\$ (5,161)	\$ 12,218	66.6244%	\$ -	\$ 8,140	\$ 8,140	\$ 6	\$ 18	\$ 25	\$ 8,165
3	Feb-18	14,580	(4,431)	10,149	66.6244%	8,140	6,762	14,902	18	52	70	14,997
4	Mar-18	22,410	(6,276)	16,134	66.6244%	14,902	10,749	25,651	32	91	123	25,869
5	Apr-18	19,654	(6,294)	13,360	66.6244%	25,651	8,901	34,552	47	136	183	34,953
6	May-18	15,699	(4,839)	10,860	66.6244%	34,552	7,235	41,787	60	172	232	42,420
7	Jun-18	23,765	(7,879)	15,886	65.9759%	41,787	10,481	52,268	74	212	286	53,187
8	Jul-18	15,741	(5,288)	10,453	65.9759%	52,268	6,897	59,165	88	251	339	60,422
9	Aug-18	20,091	(4,005)	16,086	65.9759%	59,165	10,613	69,777	90	277	367	71,402
10	Sep-18	23,461	(4,766)	18,696	65.9759%	69,777	12,335	82,112	107	326	432	84,169
11	Oct-18	22,328	(5,074)	17,254	65.9759%	82,112	11,384	93,496	123	377	500	96,052
12	Nov-18	22,193	(4,568)	17,625	65.9759%	93,496	11,628	105,124	139	426	565	108,246
13	Dec-18	11,608	(2,458)	9,150	65.9759%	105,124	6,037	111,160	152	464	616	114,898
14	Jan-19	16,290	(3,082)	13,208	65.9759%	114,898	8,714	123,612	168	512	679	124,291
15	Feb-19	24,409	(4,611)	19,797	65.9759%	123,612	13,062	136,674	183	558	741	138,094
16	Mar-19	24,062	(4,556)	19,506	65.9759%	136,674	12,869	149,543	201	614	815	151,779
17	Apr-19	20,018	(3,783)	16,235	65.9759%	149,543	10,711	160,254	218	665	883	163,373
18	May-19	27,202	(5,133)	22,068	65.9759%	160,254	14,560	174,814	236	719	954	178,887
19	Jun-19	18,738	(3,336)	15,403	65.8832%	174,814	10,148	184,962	253	772	1,025	190,060
20	Jul-19	16,267	(3,088)	13,179	65.8832%	184,962	8,683	193,644	266	812	1,079	199,821
21	Aug-19	58,647	(11,027)	47,620	65.8832%	193,644	31,374	225,018	295	898	1,193	232,387
22	Sep-19	28,293	(51,456)	(23,163)	65.8832%	225,018	(15,261)	209,757	306	933	1,239	218,365
23	Oct-19	15,789	(2,984)	12,805	65.8832%	209,757	8,436	218,193	301	918	1,219	228,020
24	Nov-19	12,379	(2,331)	10,048	65.8832%	218,193	6,620	224,813	312	950	1,262	235,902
25	Dec-19	15,830	(2,971)	12,860	65.8832%	224,813	8,472	233,286	322	983	1,305	245,679
26	Jan-20	10,386	(1,949)	8,437	65.8832%	245,679	5,559	251,238	350	1,066	1,416	252,654
27	Feb-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	254,085
28	Mar-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	255,516
29	Apr-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	256,948
30	May-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	258,379
31	Jun-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	259,811
32	Jul-20	-	-	-	65.8832%	251,238	-	251,238	354	1,078	1,431	261,242
33	Total	\$ 517,219	\$ (161,346)	\$ 355,873			\$ 235,107		\$ 6,469	\$ 19,666	\$ 26,135	

1/ McManeus Second Settlement Exhibit 1, NC-1102, Page 1 of 1, Column (a).
2/ Maness Second Revised and Second Stipulation Exhibit I, Schedule 1-2, Column (f).
3/ Column (a) plus Column (b).
4/ NCUC E-1, Item 10, NC-1102, Page 1 of 1, Column (b).
5/ Amount in Column (g) of previous line, plus return for prior 12 months at beginning of each year.
6/ Column (c) times Column (d).
7/ Column (e) plus Column (f).

8/ Column (e) plus Column (g), divided by 2, times after tax cost of debt for applicable time period per NC-1107, divided by 12.
9/ Column (e) plus Column (g), divided by 2, times after tax cost of equity for applicable time period per NC-1107, divided by 12.
10/ Column (h) plus Column (i).
11/ Column (g) plus total return for year to date from Column (j).

DUKE ENERGY CAROLINAS
Docket No. E-7, Subs 1187, 1213, and 1214
North Carolina Retail Operations
PUBLIC STAFF ADJUSTMENTS TO
TOTAL SYSTEM ARO-RELATED COAL ASH COSTS
For the Test Year Ended December 31, 2018
(in Thousands)

Public Staff
Maness Second Revised and Second Stipulation Exhibit I
Schedule 1-2

Line No.	Month	Charah Fulfillment Fee Adjustment (a)	1/ Dan River Excavation (b)	Buck Beneficiation Units (c)	3/ Remove Costs of Extraction and Treatment of Contaminated Groundwater (d)	4/ Permanent Alternative Water Supplies and Treatment Systems (e)	4/ Total Public Staff Adjustment (f)	5/
1	Jan-18	\$ -	\$ (983)	\$ (2,278)	\$ (174)	\$ (1,726)	\$ (5,161)	
2	Feb-18	-	(825)	(1,912)	(2)	(1,693)	(4,431)	
3	Mar-18	-	(1,267)	(2,938)	(3)	(2,068)	(6,276)	
4	Apr-18	-	(1,112)	(2,577)	(18)	(2,588)	(6,294)	
5	May-18	-	(888)	(2,058)	(19)	(1,874)	(4,839)	
6	Jun-18	-	(1,344)	(3,116)	-	(3,420)	(7,879)	
7	Jul-18	-	(890)	(2,064)	-	(2,334)	(5,288)	
8	Aug-18	-	(1,136)	(2,634)	-	(235)	(4,005)	
9	Sep-18	-	(1,327)	(3,076)	(4)	(359)	(4,766)	
10	Oct-18	-	(1,263)	(2,927)	-	(884)	(5,074)	
11	Nov-18	-	(1,255)	(2,910)	-	(403)	(4,568)	
12	Dec-18	-	(656)	(1,522)	(78)	(202)	(2,458)	
13	Jan-19	-	(921)	(2,136)	-	(25)	(3,082)	
14	Feb-19	-	(1,380)	(3,200)	-	(31)	(4,611)	
15	Mar-19	-	(1,361)	(3,155)	-	(41)	(4,556)	
16	Apr-19	-	(1,132)	(2,624)	-	(26)	(3,783)	
17	May-19	-	(1,538)	(3,566)	-	(29)	(5,133)	
18	Jun-19	-	(1,060)	(2,457)	-	180	(3,336)	
19	Jul-19	-	(920)	(2,133)	-	(35)	(3,088)	
20	Aug-19	-	(3,317)	(7,689)	-	(22)	(11,027)	
21	Sep-19	(46,143)	(1,600)	(3,709)	-	(4)	(51,456)	
22	Oct-19	-	(893)	(2,070)	-	(21)	(2,984)	
23	Nov-19	-	(700)	(1,623)	-	(8)	(2,331)	
24	Dec-19	-	(895)	(2,075)	-	-	(2,971)	
25	Jan-20	-	(587)	(1,362)	-	-	(1,949)	
26	Total	<u>\$ (46,143)</u>	<u>\$ (29,251)</u>	<u>\$ (67,809)</u>	<u>\$ (298)</u>	<u>\$ (17,845)</u>	<u>\$ (161,346)</u>	

- 1/ Based on recommendation of Public Staff witness Garrett.
- 2/ Based on recommendation of Public Staff witness Garrett, allocated to individual months proportionately to total NC Spend.
- 3/ Based on recommendation of Public Staff witness Moore, allocated to individual months proportionately to total NC Spend.
- 4/ Per Public Staff witness Junis..
- 5/ Sum of Columns (a) thru (e).

DUKE ENERGY CAROLINAS
Docket No. E-7, Subs 1187, 1213, and 1214
North Carolina Retail Operations
CALCULATION OF SHARING PERCENTAGE
AT SETTLED RATE OF RETURN
For the Test Year Ended December 31, 2018
(in Thousands)

Public Staff
Maness Second Revised and Second Stipulation Exhibit I
Schedule 1-3

NET-OF-TAX RATE OF RETURN

Line No.	Item	Capital Structure ^{1/}	Embedded Costs ^{1/}	Weighted Cost Rates ^{2/}	Income Tax Factors	Net-of-Tax Weighted Cost Rates ^{4/}
		(a)	(b)	(c)	(d)	(e)
1	Long-term debt	48.00%	4.270%	2.050%	0.7664975 ^{3/}	0.01571
2	Common equity	52.00%	9.600%	4.992%	1.00000	0.04992
3	Total (L1 + L2)	<u>100.00%</u>		<u>7.042%</u>		<u>0.06563</u>

NET-OF-TAX PRESENT VALUE OF COSTS TO BE AMORTIZED AND AMORTIZATION PERIOD

Line No.	Item	Amount
4	Present value of costs to be recovered at 11/01/19	\$ 261,242 ^{5/}
5	Present value of ADIT (L4 x Schedule 1, Line 6).	(61,001) ^{6/}
6	Net-of-tax Present value (L4 + L5)	<u>\$ 200,241</u>
7	Amortization period	<u>25.00</u> ^{7/}

SHARING CALCULATION

	Amortization Year	Annual Amortization ^{8/}	Income Tax Expense ^{10/}	Net-of-Tax Expense ^{11/}	Discount factor ^{12/}	Discounted Net-of-Tax Expense ^{13/}
		(a)	(b)	(c)	(d)	(e)
8	1	\$ 10,450	\$ (2,440)	\$ 8,010	0.9692060	\$ 7,763
9	2	10,450	(2,440)	8,010	0.9095144	7,285
10	3	10,450	(2,440)	8,010	0.8534991	6,836
11	4	10,450	(2,440)	8,010	0.8009338	6,415
12	5	10,450	(2,440)	8,010	0.7516058	6,020
13	6	10,450	(2,440)	8,010	0.7053158	5,649
14	7	10,450	(2,440)	8,010	0.6618767	5,301
15	8	10,450	(2,440)	8,010	0.6211130	4,975
16	9	10,450	(2,440)	8,010	0.5828598	4,669
17	10	10,450	(2,440)	8,010	0.5469626	4,381
18	11	10,450	(2,440)	8,010	0.5132762	4,111
19	12	10,450	(2,440)	8,010	0.4816645	3,858
20	13	10,450	(2,440)	8,010	0.4519997	3,620
21	14	10,450	(2,440)	8,010	0.4241619	3,397
22	15	10,450	(2,440)	8,010	0.3980386	3,188
23	16	10,450	(2,440)	8,010	0.3735241	2,992
24	17	10,450	(2,440)	8,010	0.3505195	2,808
25	18	10,450	(2,440)	8,010	0.3289317	2,635
26	19	10,450	(2,440)	8,010	0.3086734	2,472
27	20	10,450	(2,440)	8,010	0.2896628	2,320
28	21	10,450	(2,440)	8,010	0.2718230	2,177
29	22	10,450	(2,440)	8,010	0.2550820	2,043
30	23	10,450	(2,440)	8,010	0.2393719	1,917
31	24	10,450	(2,440)	8,010	0.2246295	1,799
32	25	10,450	(2,440)	8,010	0.2107950	1,688
33	26	-	-	-	0.1978125	-
34	27	-	-	-	0.1856296	-
35	28	-	-	-	0.1741970	-
36	29	-	-	-	0.1634686	-
37	30	-	-	-	0.1534009	-
38	Total	<u>\$ 261,242</u>	<u>\$ (61,001)</u>	<u>\$ 200,241</u>		<u>\$ 100,321</u>

39 Ratepayer-borne percentage of net-of-tax present value cost 50.100% ^{14/}

40 Shareholder-borne percentage of net-of-tax present value cost (1 - L14) 49.900%

1/ Boswell Second Supplemental and Stipulation Exhibit 1, Schedule 4.

2/ Column (a) x Column (b).

3/ 1 - Schedule 1, Line 6.

4/ Column (c) x Column (d).

5/ Schedule 1, Line 1.

6/ Line 4 x Schedule 1, Line 6.

7/ Schedule 1, Line 2.

8/ Based on amortization period.

9/ Schedule 1, Line 3.

10/ Column (a) x Schedule 1, Line 6.

11/ Column (a) + Column (b).

12/ Based on net-of-tax overall rate of return and mid-year cash flow assumption.

13/ Column (c) x Column (d).

14/ Line 38, Column (e) divided by Line 6.

DUKE ENERGY CAROLINAS
Docket No. E-7, Subs 1187, 1213 AND 1214
North Carolina Retail Operations
ADJUSTMENT TO DEFERRED NON_ARO
ENVIRONMENTAL COST AMORTIZATION
For the Test Year Ended December 31, 2018
(in Thousands)

Public Staff
Maness Second Revised and Second Stipulation Exhibit II

Line No.	Item	NC Retail Amount
Income statement impact		
1	Balance for Amortization	\$ 91,254 ^{1/}
2	Years to Amortize	<u>8</u> ^{2/}
3	Annual amortization per Public Staff (L1 / L2)	11,407
4	Annual amortization per Company	<u>11,407</u> ^{3/}
5	Public Staff adjustment to non-ARO amortization expense (L3 - L4)	<u>-</u>
6	Statutory tax rate	<u>23.35025%</u> ^{4/}
7	Public Staff adjustment to income taxes (-L5 x L6)	<u>\$ -</u>
Rate base impact		
8	Deferred balance of non-ARO environmental costs (L1)	\$ 91,254
9	Annual amortization (-L3)	<u>(11,407)</u>
10	Annualized non-ARO regulatory asset balance per Public Staff (L8 + L9)	79,847
11	Deferred non-ARO regulatory asset per Company	<u>79,847</u> ^{5/}
12	Public Staff annualization adjustment to deferred balance (L10 - L11)	<u>\$ -</u>
13	Adjustment to ADIT (-L12 x L6)	<u>\$ -</u>

- 1/ McManeus Second Settlement Exhibit 1, NC-1101, Page 1 of 1, Non-ARO column, Line 2.
- 2/ Amortization period stipulated to by Public Staff and Company, in settlement.
- 3/ McManeus Second Settlement Exhibit 1, NC-1101, Page 1 of 1, Non-ARO column, Line 7.
- 4/ NCUC E-1, Item 10, NC-0104 - 2019 Calculation of Tax Rates - Statutory Tax Rate, Line 10 (unrounded).
- 5/ McManeus Second Settlement Exhibit 1, NC-1101, Page 1 of 1, Non-ARO column, Line 18.