

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1146

In the Matter of)	TESTIMONY OF
Application of Duke Energy Carolinas,)	MICHELLE M. BOSWELL
LLC, for Adjustment of Rates and)	PUBLIC STAFF – NORTH
Charges Applicable to Electric Utility)	CAROLINA UTILITIES
Service in North Carolina)	COMMISSION
)	

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**DOCKET NO. E-7, SUB 1146****TESTIMONY OF MICHELLE M. BOSWELL
ON BEHALF OF THE PUBLIC STAFF
NORTH CAROLINA UTILITIES COMMISSION****JANUARY 23, 2018**

1 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND**
2 **PRESENT POSITION.**

3 A. My name is Michelle M. Boswell. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a
5 Staff Accountant with the Accounting Division of the Public Staff –
6 North Carolina Utilities Commission.

7 **Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

8 A. My qualifications and duties are included in Appendix A.

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of my testimony is to present the accounting and
11 ratemaking adjustments I am recommending, as well as those
12 recommended by other Public Staff witnesses, as a result of the
13 Public Staff's investigation of the revenue, expenses, and rate base
14 presented by Duke Energy Carolinas, LLC (DEC or the Company) in

1 support of its August 25, 2017, request for \$612,647,000 in additional
2 North Carolina retail revenue. On December 18, 2017, DEC filed
3 supplemental testimony and exhibits that detailed a \$13,928,000
4 reduction in its request for additional North Carolina retail revenue.
5 The impact of this supplemental filing reduced the Company
6 proposed increase to \$598,719,000.

7 **Q. WHAT REVENUE DECREASE IS THE PUBLIC STAFF**
8 **RECOMMENDING?**

9 A. Based on the level of rate base, revenue, and expenses annualized
10 at December 31, 2016, with certain updates, the Public Staff is
11 recommending a decrease in annual operating revenue of
12 (\$289,267,000).

13 **Q. MS. BOSWELL, PLEASE DESCRIBE THE SCOPE OF YOUR**
14 **INVESTIGATION INTO THE COMPANY'S FILING.**

15 A. My investigation included a review of the application, testimony,
16 exhibits, and other data filed by the Company, an examination of the
17 books and records for the test year, and a review of the Company's
18 accounting, end-of-period, and after-period adjustments to test year
19 revenue, expenses, and rate base. The Public Staff has also
20 conducted extensive discovery in this matter, including the review of
21 numerous data responses provided by the Company in response to
22 data requests, participation in conference calls with the Company,

1 on-site visits to review documents and interview personnel, and tours
2 of the Company's plants.

3 **Q. PLEASE BRIEFLY DESCRIBE THE PUBLIC STAFF'S**
4 **PRESENTATION OF THE ISSUES IN THIS CASE.**

5 A. Each Public Staff witness will present testimony and exhibits
6 supporting his or her position and recommend any appropriate
7 adjustments to the Company's proposed rate base and cost of
8 service. My exhibits reflect and summarize these adjustments, as
9 well as the adjustments I recommend.

10 **Q. PLEASE GIVE A MORE DETAILED DESCRIPTION OF THE**
11 **ORGANIZATION OF YOUR EXHIBITS.**

12 A. Schedule 1 of Boswell Exhibit 1 presents a reconciliation of the
13 difference between the Company's requested increase of
14 \$612,647,000 and the Public Staff's recommended decrease of
15 (\$289,267,000).

16 Schedule 2 presents the Public Staff's adjusted North Carolina retail
17 original cost rate base. The adjustments made to the Company's
18 proposed level of rate base are summarized on Schedule 2-1 and
19 are detailed on backup schedules.

20 Schedule 3 presents a statement of net operating income for return
21 under present rates as adjusted by the Public Staff. Schedule 3-1

1 summarizes the Public Staff's adjustments, which are detailed on
2 backup schedules.

3 Schedule 4 presents the calculation of required net operating
4 income, based on the rate base and cost of capital recommended by
5 the Public Staff.

6 Schedule 5 presents the calculation of the required decrease in
7 operating revenue necessary to achieve the required net operating
8 income. This revenue decrease is equal to the Public Staff's
9 recommended decrease shown at the bottom of Schedule 1.

10 . Boswell Exhibit 2 sets forth the calculation of an annual excess
11 deferred income taxes (EDIT) Rider to be in effect for two years.

12 **Q. MS. BOSWELL, WHAT ADJUSTMENTS TO THE COMPANY'S**
13 **COST OF SERVICE DO YOU RECOMMEND?**

14 A. I am recommending adjustments in the following areas:

- 15 1) Adjust Test Year Revenues
- 16 2) Updated Net Plant and Depreciation Expense
- 17 3) Update for New Depreciation Rates
- 18 4) Updated Revenues and Non-Fuel Variable Operation
19 and Maintenance (O&M) Expenses
- 20 5) Lee Nuclear
- 21 6) Lee Combined Cycle (Lee CC) Plant Addition
- 22 7) Lee Combined Cycle (Lee CC) Deferral
- 23 8) Cash Working Capital Under Present Rates
- 24 9) Coal Inventory

- 1 10) Effect of Base Fuel Factor
- 2 11) Effect of Inflation on Non-Fuel O&M Expenses
- 3 12) Payroll
- 4 13) Executive Compensation and Benefits
- 5 14) Board of Directors Expenses
- 6 15) Incentive Plans
- 7 16) Aviation Expenses
- 8 17) Outside Services
- 9 18) Removal of Costs to Achieve the Duke-Piedmont
- 10 Merger
- 11 19) Allocations from DEBS
- 12 20) Lobbying Expenses
- 13 21) Distribution Vegetation Management
- 14 22) Customer Connect
- 15 23) Income Taxes
- 16 24) Sponsorships and Donations
- 17 25) Interest Synchronization
- 18 26) Cash Working Capital Effect of Increase
- 19 27) Excess Deferred Income Taxes (EDIT)
- 20 28) Establishment of a Grid Reliability and Resiliency
- 21 Rider (GRR)

22 **Q. WHAT ADJUSTMENTS RECOMMENDED BY OTHER PUBLIC**
23 **STAFF WITNESSES DO YOUR EXHIBITS INCORPORATE?**

24 A. My exhibits reflect the following adjustments recommended by other
25 Public Staff witnesses:

- 26 1) The recommendations of Public Staff witness Parcell of
- 27 Technical Associates, Inc. regarding the capital structure,
- 28 embedded cost of long-term debt, and return on common
- 29 equity.

- 1 2) The recommendations of Public Staff witness Floyd regarding
2 Customer Connect.
- 3 3) The recommendations of Public Staff witness Metz regarding
4 Coal Inventory, Lee Nuclear, and Lee CC.
- 5 4) The recommendations of Public Staff witness Lucas regarding
6 beneficial reuse of coal ash.
- 7 5) The recommendations of Public Staff witness McCullar of
8 William Dunkel and Associates regarding the Company's
9 depreciation study.
- 10 6) The recommendations of Public Staff witness Williamson
11 regarding Vegetation Management and the GRR.
- 12 7) The recommendations of Public Staff witness Maness
13 regarding deferred and ongoing environmental costs, legacy
14 meters that are to be replaced by Advanced Metering
15 Infrastructure (AMI) meters, allowance for funds used during
16 construction (AFUDC) at Lee Nuclear, nuclear
17 decommissioning, and GRR.
- 18 8) The recommendation of Public Staff witness Saillor regarding
19 customer growth.

20 **Q. PLEASE DESCRIBE YOUR RECOMMENDED ADJUSTMENTS.**

21 A. My adjustments are described below.

1 **ADJUST TEST YEAR REVENUES**

2 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO TEST YEAR**
3 **REVENUES.**

4 A. I have adjusted test year revenues to reflect usage and customer
5 growth adjustments recommended by Public Staff witness Saillor, as
6 well as a weather normalization adjustment recommended by Public
7 Staff witness Hinton. I have made a corresponding adjustment for
8 the increase in customer-related O&M expenses that result from the
9 additional customers from the Company's adjustment to revenues. I
10 have also made corresponding adjustments to fuel and energy-
11 related non-fuel O&M expenses for the change in kilowatt hours
12 resulting from the Company's and the Public Staff's adjustments to
13 revenues.

14 **UPDATED NET PLANT AND DEPRECIATION EXPENSE**

15 **Q. PLEASE EXPLAIN HOW PLANT, ACCUMULATED**
16 **DEPRECIATION AND DEPRECIATION EXPENSE ARE**
17 **RELATED.**

18 A. As the Company places new plant into service, it increases its rate
19 base. Upon being placed in service, the plant begins to depreciate,
20 and depreciation expense is recorded each accounting period (and
21 recovered from ratepayers) as the plant is used in providing service.

1 The cumulative amount of depreciation expense is reflected on the
2 balance sheet as accumulated depreciation, which is deducted from
3 the original cost of the plant to determine net plant. Net plant (i.e.,
4 total plant, net of accumulated depreciation) is used to calculate the
5 rate base on which the Company is allowed to earn a return, while
6 depreciation expense is an input in the calculation of net operating
7 income.

8 **Q. PLEASE EXPLAIN THE COMPANY'S COMPUTATION OF NET**
9 **PLANT.**

10 A. The Company began its calculation of net plant with the plant and
11 accumulated depreciation amounts recorded at the end of December
12 31, 2016 (the test year in this case), and then updated for actual plant
13 additions through November 30, 2017, including the annual level of
14 depreciation on the plant additions as well as the matching amount
15 of accumulated depreciation. The Company excluded customer
16 growth-related additions.

17 **Q. PLEASE EXPLAIN HOW YOU HAVE COMPUTED NET PLANT.**

18 A. My calculation begins with plant, accumulated depreciation, and net
19 plant based on the Company's actual per books plant in service and
20 accumulated depreciation amounts as of November 30, 2017, which
21 include rate base customer growth-related actual plant additions.

1 **Q. PLEASE EXPLAIN THE DIFFERENCE BETWEEN YOUR**
2 **AMOUNT OF NET PLANT AND THE COMPANY'S AMOUNT.**

3 A. I have reflected \$35.571 million less net plant than the Company,
4 primarily because I have updated net plant for known and actual
5 changes to depreciation expense and non-generation plant
6 retirements that have been recorded between the end of the test year
7 (December 31, 2016) and the update period ending November 30,
8 2017. Because I have updated plant and accumulated depreciation
9 to reflect the Company's actual November 30, 2017, per books
10 amounts, I have also considered the effect of normal retirements on
11 the computation of depreciation expense. Pursuant to the FERC
12 Uniform System of Accounts, normal retirements of plant reduce
13 plant and accumulated depreciation by offsetting amounts, and thus,
14 do not affect the amount of net plant reflected as a component of rate
15 base. If retirements are not properly reflected in the amount of plant
16 used to compute depreciation expense, depreciation expense will be
17 overstated. Because the Company has not properly reflected the
18 effect of normal retirements, its computation of depreciation expense
19 includes depreciation expense on plant that was retired as of
20 November 30, 2017 and consequently is overstated.

21 **Q. BY MAKING THIS ADJUSTMENT TO UPDATE ACCUMULATED**
22 **DEPRECIATION FOR DEPRECIATION EXPENSE THAT HAS**
23 **BEEN RECOVERED FROM RATEPAYERS SINCE THE END OF**

1 **THE TEST PERIOD, IS THE PUBLIC STAFF CHANGING THE**
2 **TEST PERIOD?**

3 A. No. Consistent with G.S. 62-133, we have used the historic test year
4 to determine the cost of service for DEC. When justified, we have
5 updated expenses, revenues, and investment to reflect the
6 Company's most recent ongoing levels for these items, based on
7 actual known and measurable changes occurring after the test year,
8 just as DEC did in its initial and supplemental testimony. The costs
9 of the plant additions that the Company included are known and
10 measurable, as are the plant retirements that have occurred and the
11 depreciation that has been recovered from ratepayers since the end
12 of the test period. Including only plant additions and omitting
13 changes in accumulated depreciation, as the Company has done,
14 fails to properly take into account the relationships among plant,
15 depreciation expense and accumulated depreciation, as well as the
16 relationship between net plant and other cost of service items. The
17 Public Staff updated plant and accumulated depreciation to reflect
18 actual per books amounts as of November 30, 2017, because that
19 date represents the same point in time that the Public Staff used to
20 update customer growth.

21 While the Public Staff's adjustment to accumulated depreciation is
22 beyond the test year, it recognizes and maintains its relationship with
23 plant and other cost of service items and is permitted by G.S. 62-

1 133(c) and (d). G.S. 62-133(c) provides that the Commission shall
2 consider evidence of changes in costs, revenues, or rate base after
3 the test year, while G.S. 62-133(d) requires the Commission to
4 consider all material facts to allow it to set just and reasonable rates.
5 The changes in plant, depreciation expense, and accumulated
6 depreciation since the test year are exactly the type of changes and
7 material facts that the Commission must consider pursuant to G.S.
8 62-133(c) and (d).

9 The adjustment I recommend is consistent with the Commission's
10 past treatment of comprehensive plant updates beyond the end of
11 the test year. Adjustments like this have been consistently approved
12 by the Commission in rate cases for natural gas utilities since the
13 1990's and were used by Dominion Energy North Carolina in its most
14 recent general rate cases.¹

15 **UPDATE FOR NEW DEPRECIATION RATES**

16 **Q. PLEASE DESCRIBE YOUR ADJUSTMENT TO DEPRECIATION**
17 **EXPENSE TO REFLECT NEW DEPRECIATION RATES.**

¹ Per Commission Orders in Public Service Company of North Carolina, Inc., Docket No. G-5, Sub 565; Piedmont Natural Gas Company, Inc., Docket No. G-9, Sub 631; and Dominion North Carolina Power, Docket Nos. E-22, Sub 479 and Sub 532.

1 A. Based on the recommendations of Public Staff witness McCullar, I
2 have made an adjustment to depreciation expense to reflect her
3 recommended depreciation rates.

4 **UPDATED REVENUES AND NON-FUEL VARIABLE O&M**
5 **EXPENSES**

6 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO UPDATE**
7 **REVENUES AND VARIABLE NON-FUEL O&M EXPENSES.**

8 A. As part of my update to plant and related items, I have updated
9 revenues to reflect the effect of usage and customer growth
10 adjustments as of November 30, 2017, based on the
11 recommendation of Public Staff witness Saillor. I have made a
12 corresponding adjustment for the increase in customer-related O&M
13 expenses that result from the additional customers. I have also
14 made corresponding adjustments to fuel and energy-related non-fuel
15 O&M expenses for the additional kilowatt hours resulting from
16 increased sales.

17 **LEE NUCLEAR**

18 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO LEE NUCLEAR.**

19 A. I have adjusted the balance for amortization to reflect the following:
20 1) removal of the costs associated with design of a visitor's center as
21 recommended by Public Staff witness Metz; (2) removal of a portion

1 of AFUDC as recommended by Public Staff witness Maness; and (3)
2 removal of the unamortized balance and associated accumulated
3 deferred income taxes (ADIT) from rate base. The premise for
4 excluding the unamortized balance and associated ADIT from rate
5 base, as opposed to including the amount and calculating a rate of
6 return as the Company has done, is consistent with the
7 Commission's long-standing policy regarding abandonment losses
8 related to nuclear plants:² that it is neither fair nor reasonable to
9 include in rate base any portion of the unamortized balance of
10 prudently incurred abandonment losses associated with an
11 abandoned unit in rate base, and that no adjustment should be
12 allowed which would, effectively enable the Company to earn a
13 return on the unamortized balance. The Commission has concluded
14 that this treatment provides the most equitable allocation of the loss
15 between the utility and the consumer, as it places some of the risk of
16 abandonment on the utility rather than imposing the entire loss of
17 expenditures onto the ratepayers. The Public Staff believes it is
18 unreasonable to ask ratepayers to bear all the risk of the Company's
19 investment.

² Per Commission Orders in Docket Nos. E-22, Subs 224 and 273; E-2, Subs 461, 481, 526, and 537; and E-7, Subs 338, 358, 373, 391, 408, and 487.

LEE CC PLANT ADDITION

Q. PLEASE EXPLAIN YOUR ADJUSTMENTS TO LEE CC PLANT ADDITION.

A. I have incorporated three adjustments into my calculation of the Lee CC plant addition. First, pursuant to a data request response provided by the Company, I have reduced the estimated incremental inventory on a North Carolina retail basis from \$23,319,000 to \$5,330,000. The Public Staff reserves the right to update this amount to reflect actual material and supplies inventory as of the date the plant becomes operational.

Next, the Company updated its response to a data request that reduces the estimated incremental O&M expenses on a North Carolina retail basis from \$6,031,000 to \$1,982,000.

Additionally, I have removed the \$1,982,000 O&M expenses from the calculation, as it represents an estimate, not actual O&M expenses needed to operate the plant. Historically, an annualized O&M expense is calculated based on actual expenses incurred to run the plant for the months it was in service prior to setting rates in the rate case, and a corresponding displacement adjustment is made to reflect the fact that existing plant(s) in the Company's fleet will not run as frequently due to the availability of the new plant. However, since the plant is not in service, there is no period with actual O&M

1 expenses that can be used to calculate a reasonable annualized
2 O&M expense level. Since I have not included an annualized O&M
3 expense in the adjustment, I have not made a displacement
4 adjustment to reduce the costs associated with other plant(s) that will
5 run less due to the addition of Lee CC.

6 Finally, based on the recommendation of Public Staff witness
7 McCullar, I reduced the depreciation rate from the 2.83% proposed
8 by the Company to 2.75%.

9 **Q. DO YOU HAVE ANY ADDITIONAL CONCERNS ABOUT THE LEE**
10 **CC PLANT ADDITIONS?**

11 A. Yes. As of the date of my testimony in this proceeding, the Lee CC
12 plant is not in service. I have included the plant addition in the
13 calculation of revenue requirement as the Company is projecting the
14 plant to be in service by the beginning of February 2018. However,
15 if the plant is not in service as of the close of the hearing, I
16 recommend removing the plant and related deferral adjustments
17 from rates, and including the plant in CWIP to be included in rate
18 base. I have reflected the impact of these adjustments on Boswell
19 Exhibit 1, Schedule 1, Line 45.

1 LEE CC DEFERRAL

2 **Q. PLEASE EXPLAIN THE ADJUSTMENT TO LEE CC DEFERRAL.**

3 A. I have incorporated several adjustments into the calculation of the
4 Lee CC deferral. First, I have incorporated all of the adjustments
5 included in the Lee CC plant additions calculation discussed
6 previously. Second, I have included only three months of deferral
7 costs, the period of February through April 2018, in calculating the
8 deferral, as the plant will not be in operation until the end of January
9 2018 at the earliest. The deferral accounts are for the period from
10 when the plant is in service until new rates are effective.

11 Third, I have adjusted the Company's pre-tax rate of return used in
12 the calculation of the deferred balance to reflect the capital structure
13 and cost rates as approved in DEC's last rate case in Docket No. E-
14 7, Sub 1026 and the current income tax rates.

15 Finally, I recommend that the Lee CC deferral costs for North
16 Carolina retail be recovered through a levelized amortization over a
17 five-year period. I have calculated the levelized amortization amount
18 based upon my recommended five-year period and the after-tax rate
19 of return using the capital structure, cost rates, and combined income
20 tax rate recommended by the Public Staff in this proceeding. Both

1 the five-year amortization period and the levelized amortization
2 calculation have historically been proposed by the Public Staff as a
3 reasonable method for the Company to recover the deferral costs of
4 adding a baseload plant.

5 **CASH WORKING CAPITAL UNDER PRESENT RATES**

6 **Q. PLEASE EXPLAIN THE ADJUSTMENT TO CASH WORKING**
7 **CAPITAL UNDER PRESENT RATES.**

8 A. The Company computed cash working capital using the lead-lag
9 study method and then adjusted it to fully reflect all of the Company's
10 proposed adjustments, before the amount of the proposed rate
11 increase. I have likewise adjusted cash working capital under
12 present rates to reflect all of the Public Staff's adjustments, in
13 accordance with the Commission's Order in Docket No. M-100, Sub
14 137. This cash working capital adjustment is reflected on Schedule
15 2-1 and incorporates the effect of the Public Staff's adjustments,
16 before the rate increase, on lead-lag study cash working capital.

17 **COAL INVENTORY**

18 **Q. PLEASE EXPLAIN THE ADJUSTMENT TO COAL INVENTORY.**

19 A. I have adjusted coal inventory to reflect the recommendations of
20 Public Staff witness Metz.

1 EFFECT OF BASE FUEL FACTOR

2 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO THE BASE FUEL**
3 **FACTOR.**

4 A. I have incorporated the fuel factor approved by the Commission in
5 DEC's last fuel case in Docket No. E-2, Sub 1129 to calculate the
6 fuel expenses and revenues in this case. The Company utilized the
7 fuel factor it originally filed in the same docket, not the Commission-
8 approved factor. The net effect of the adjustment is zero, as the
9 adjustment to expenses is offset by the change to revenues.

10 The fuel revenue presented in the present rates column as filed by
11 the Company should reflect fuel under present Commission-
12 approved rates. It is inappropriate to state fuel revenues at present
13 rates at a level other than what the Commission has already
14 approved. The Public Staff inquired about the Company's rationale
15 for the fuel factors used by the Company; DEC responded: "Due to
16 the timing of the HB589 legislation, the fuel factors approved in E-7,
17 Sub 1129 do not include the PURPA purchased power costs. As a
18 result the approved factors are lower than what the Company
19 expects will be proposed in its next fuel proceeding. The Company
20 believes the higher fuel factors proposed in this general rate case
21 proceeding are more representative of the fuel costs the Company
22 expects to incur and recover in future fuel proceedings." The

1 Company did not provide any documentation to support the usage of
2 a fuel factor which was calculated to incorporate the effects of HB589
3 approval.

4 It appears that the Company is attempting to have the Commission
5 implement a base fuel factor that reflects a level of fuel expense that
6 the Company estimates will be found appropriate, or close to
7 appropriate, in a future fuel case. The Public Staff does not believe
8 that this type of rough estimate is appropriate for setting a base fuel
9 factor in a general rate case. The Public Staff believes that if DEC
10 wanted a base fuel factor higher than the most recently Commission-
11 approved factor, the Company should have presented the cost
12 support to fully justify the change in fuel expense and the resulting
13 proposed fuel factor, and increase fuel expense, not fuel revenue
14 under present rates, to justify the increase. The increased fuel
15 expense would have then be used to propose an increase in the base
16 fuel factor as part of the overall rate change.

17 **EFFECT OF INFLATION ON NON-FUEL O&M EXPENSES**

18 **Q. WHAT ADJUSTMENT HAVE YOU MADE TO THE COMPANY'S**
19 **INFLATION ADJUSTMENT?**

20 A. The Company made an adjustment to annual non-labor, non-fuel
21 O&M costs, to reflect the increase in costs during the test year that
22 occurred due to the effect of inflation as of October 2017. I have

1 adjusted the amount to reflect the inflation factor through November
2 30, 2017, so as to coordinate with other items updated through that
3 same point in time. I have also modified the Company's inflation
4 adjustment to reflect the Public Staff's adjustment to include variable
5 O&M expenses for changes in customer growth and the removal of
6 aviation expenses, Board of Directors (BOD) expenses, outside
7 services expenses, uncollectibles, and sponsorships and donations.

8 **PAYROLL**

9 **Q. PLEASE EXPLAIN THE PUBLIC STAFF'S ADJUSTMENT TO**
10 **PAYROLL.**

11 A. I have adjusted the Company's updated payroll provided in its
12 December 18, 2017 supplemental filing to include the updated
13 payroll allocation factors through November 2017 as provided by the
14 Company in response to a data request. For Duke Energy Business
15 Services, LLC (DEBS) payroll allocated to DEC, I have applied the
16 updated allocation factor only to the increase in payroll between
17 December 31, 2016 and November 30, 2017, as the test year
18 amount is included in the DEBS to DEC allocation adjustment
19 discussed later in my testimony.

1 **EXECUTIVE COMPENSATION AND BENEFITS**

2 **Q. WHAT ADJUSTMENT HAVE YOU MADE TO EXECUTIVE**
3 **COMPENSATION AND BENEFITS?**

4 A. The Company made an adjustment to remove 50 percent of the
5 compensation of the four Duke Energy executives with the highest
6 level of compensation allocated to DEC in the test period. My
7 adjustment includes the removal of 50 percent of the compensation
8 of an additional executive. The premise of including the
9 compensation of the top five Duke Energy executives, as opposed
10 to the top four executives as the Company has done, is to reflect the
11 fact that the additional executive's duties and compensation
12 encompass a substantial amount of activities that are closely linked
13 to shareholder interests, just as in the case of the other four
14 executives.

15 I have also made an adjustment to remove 50 percent of the benefits
16 associated with these top five Duke Energy executives. This
17 adjustment is consistent with the positions taken by the Public Staff
18 and approved by the Commission in past general rate cases
19 involving investor-owned electric utilities serving North Carolina retail
20 customers. The Public Staff believes that it would be inconsistent to
21 remove the compensation of these five executives without also
22 removing the benefits related to that compensation.

1 **Q. IS YOUR RECOMMENDATION BASED ON THE PREMISE THAT**
2 **THE COMPENSATION AND BENEFITS OF THE EXECUTIVE**
3 **OFFICERS YOU HAVE SELECTED ARE EXCESSIVE OR**
4 **SHOULD BE REDUCED?**

5 A. No. This recommendation is based on the Public Staff's belief that it
6 is appropriate and reasonable for the shareholders of the larger
7 electric utilities to bear some of the cost of compensating those
8 individuals who are most closely linked to furthering shareholder
9 interests, which are not always the same as those of ratepayers.
10 Officers have fiduciary duties of care and loyalty to shareholders, but
11 not to customers. Consequently, the Company's executive officers
12 are obligated to direct their efforts not only to minimizing the costs
13 and maximizing the reliability of DEC's service to customers, but also
14 to maximizing the Company's earnings and the value of its shares.
15 It is reasonable to expect that management will serve the
16 shareholders as well as the ratepayers; therefore, a portion of
17 management salary and benefits should be borne by the
18 shareholders.

1 **BOARD OF DIRECTORS (BOD) EXPENSES**

2 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO BOD EXPENSES.**

3 A. I have made an adjustment to remove 50 percent of the expenses
4 associated with the BOD of Duke Energy Corporation that have been
5 allocated to DEC. The expenses allocated to DEC encompass the
6 BOD's compensation, insurance, and other miscellaneous
7 expenses. The premise of this adjustment is closely linked to the
8 premise of the adjustment made by the Public Staff related to
9 executive compensation. We believe that it is appropriate and
10 reasonable for the shareholders of the larger electric utilities to bear
11 a reasonable share of the costs of compensating those individuals
12 who have a fiduciary duty to protect the interests of shareholders,
13 which may differ from the interests of ratepayers. Further, Directors'
14 and Officers' liability insurance, while a necessary expense for a
15 corporation, has been utilized to defend the Board in suits brought
16 by shareholders regarding issues such as coal ash. It is appropriate
17 for shareholders to share the cost of the insurance with ratepayers.

18 **INCENTIVE PLANS**

19 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT FOR THE COMPANY'S**
20 **LONG AND SHORT TERM INCENTIVE PLANS.**

1 A. DEC offers two incentive plans to its employees: the Short-Term
2 Incentive Plan (STIP) and the Long-Term Incentive Plan (LTIP). The
3 STIP is offered to all employees, including executives. The LTIP is
4 offered to employees at the Director level and above. Approximately
5 700 employees of Duke Energy Corporation qualify for the LTIP.

6 The STIP consists of goals set and approved by the BOD for a one-
7 year term. In 2016, the test year in this case, the goals consisted of
8 Earnings per Share (EPS), Operational Excellence, Customer
9 Satisfaction, and Safety, as well as team and individual goals. The
10 LTIP goals consist of Performance Shares, which are further
11 categorized between EPS and Total Shareholder Return (TSR), and
12 Restricted Stock Units (RSU). Both offerings are set and approved
13 by the BOD for a three-year period.

14 The Company's payout of STIP is based on the achievement of
15 targets at minimum, target and maximum levels. During the test
16 year, the Company included an adjustment to reduce the STIP from
17 the 2016 payout level to the 2017 target level. With regard to LTIP,
18 the Company made an adjustment to remove the 2016 accruals and
19 replace them with 2017 target accruals.

20 I have adjusted the allowable costs of STIP to exclude the incentive
21 accruals that were based on the EPS metric. The Public Staff
22 believes that the incentives related to EPS should be excluded

1 because they provide a direct benefit to shareholders rather than to
2 ratepayers. It should be further noted that the EPS portion of the
3 STIP only accounts for 30% of the non-executive level employees
4 accrual, and 50% of the executive level employees accrual.

5 I have also adjusted the allowable LTIP costs to exclude the
6 Performance Shares, which include the EPS and TSR metrics. The
7 Public Staff believes that the incentives related to EPS and TSR
8 should be excluded because they provide a direct benefit to
9 shareholders rather than to ratepayers. The Company's BOD
10 minutes depict a direct link and benefit between the Company's goals
11 and shareholder's interests. Therefore, these costs should be borne
12 by shareholders.

13 **AVIATION EXPENSES**

14 **Q. WHAT ADJUSTMENT DO YOU RECOMMEND RELATED TO**
15 **AVIATION EXPENSES?**

16 A. The Company made an adjustment to O&M expenses to remove an
17 amount for corporate aviation, and updated this adjustment in its
18 December 18, 2017 supplemental filing. The Public Staff made a
19 further adjustment after investigating the aviation expenses charged
20 to DEC during the test year. The aviation expenses are incurred by
21 Duke Energy Corporation, and then a portion is allocated to DEC

1 through the use of a corporate allocation factor. Based on the Public
2 Staff's review of flight logs, the corporate aircraft are available for use
3 by Duke Energy Corporation's Chief Executive Officer (CEO) and her
4 staff. I recommend that certain expenses allocated to DEC be
5 removed due to the nature of the flights involved. Some of these
6 flights appear to be unrelated to the provision of utility service; in
7 other instances, the costs of the flights have been incorrectly
8 allocated; and in other cases, the Company has not justified the costs
9 of using Company-owned aircraft rather than purchasing tickets for
10 commercial flights.

11 **OUTSIDE SERVICES**

12 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO OUTSIDE**
13 **SERVICES.**

14 A. During 2016, the test year in this case, the Public Staff reviewed
15 costs for outside services associated with expenses that were
16 indirectly charged to DEC by DEBS as well as those incurred by DEC
17 directly. Our investigation revealed charges that were related to legal
18 services for coal ash and groundwater issues related to coal ash. I
19 have removed these expenses from O&M in the test period based
20 on the advice of counsel. The Public Staff also found certain
21 expenses that were allocated to DEC that should have been directly
22 assigned to other jurisdictions, as well as costs allocated to DEC

1 which the Public Staff believes should not be charged to ratepayers,
2 and costs for the Duke-Piedmont merger. The costs allocated to
3 DEC for the Duke-Piedmont merger are discussed in the next section
4 of my testimony. As for certain expenses that were allocated to DEC
5 that should have been directly assigned to other jurisdictions, the
6 Company has agreed to remove these items based on the Public
7 Staff's audit. DEC ratepayers should be charged only the reasonable
8 costs of providing electric service to North Carolina retail customers.

9 **REMOVAL OF COSTS TO ACHIEVE DUKE-PIEDMONT MERGER**

10 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO COSTS TO**
11 **ACHIEVE THE MERGER.**

12 A. On September 29, 2016, in Docket No. E-7, Sub 1100, Docket No.
13 E-2, Sub 1095, and Docket No. G-9, Sub 682, the Commission
14 issued its Order Approving Merger Subject to Regulatory Conditions
15 and Code of Conduct (Merger Order), which approved the merger
16 between Duke Energy Corporation and Piedmont Natural Gas
17 (PNG). Ordering paragraph 7(b) of the Merger Order, which
18 addresses the ratemaking treatment of costs incurred to achieve the
19 merger, states (emphasis added):

20 DEC, DEP, and Piedmont may request recovery
21 through depreciation or amortization, and inclusion in
22 rate base, as appropriate and in accordance with
23 normal ratemaking practices, their respective shares of
24 **capital costs associated with achieving merger**
25 **savings** [emphasis added], such as system integration

1 costs and the adoption of best practices, including
2 information technology, provided that such costs are
3 incurred no later than three years from the close of the
4 merger and result in quantifiable cost savings that
5 offset the revenue requirement effect of including the
6 costs in rate base. Only the net depreciated costs of
7 such system integration projects at the time the request
8 is made may be included, and no request for deferrals
9 of these costs may be made.

10 On October 4, 2017, Duke Energy Corporation filed a letter indicating
11 that both it and Piedmont accepted and agreed to all the terms,
12 conditions, and provisions of the Merger Order, including the
13 Regulatory Conditions and Code of Conduct. During the test year in
14 this case, DEC has included in operating expenses approximately
15 \$6.5 million on a North Carolina retail basis that it identified as
16 systems and transition costs to achieve merger savings.

17 Since the Merger Order states in ordering paragraph 7(b) that DEC
18 shall only be allowed to recover the capital costs associated with
19 achieving merger savings, such as system integration costs, the
20 Public Staff has removed the \$6.5 million of O&M expenses that DEC
21 identified as systems and transitions costs to achieve the merger that
22 were included in its North Carolina retail operating expenses in this
23 case.

1 **ALLOCATIONS FROM DEBS**

2 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO ALLOCATIONS**
3 **FROM DEBS.**

4 A. DEBS is the company that provides services to various affiliated
5 entities of Duke Energy Corporation. The affiliated entities have a
6 Cost Allocation Manual (CAM) that documents the guidelines and
7 procedures for allocating costs between the entities to ensure that
8 one entity does not subsidize another. During the test year, Duke
9 Energy acquired PNG, and the merger was approved by the
10 Commission on September 29, 2016. This change, along with
11 updates related to other affiliated entities, has caused the DEC
12 allocation factors to decrease on a going-forward basis. As a result,
13 I have made an adjustment to reflect the fact that O&M expenses
14 allocated to DEC from DEBS will be less going forward.

15 **LOBBYING EXPENSES**

16 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO LOBBYING**
17 **EXPENSES.**

18 A. The Company made an adjustment to remove some lobbying
19 expenses from the test year. I have further adjusted O&M expenses
20 to remove additional lobbying costs. In determining what costs

1 should be removed, I applied the “but for” test for reporting lobbying
2 costs as used in a Formal Advisory Opinion of the State Ethics
3 Commission dated February 12, 2010. The Commission recognized
4 at pages 70-71 of its 2012 Dominion North Carolina Power order in
5 Docket No. E-22, Sub 479, that lobbying included not only
6 employees’ direct contact with legislators, but also other activities
7 preparing for or surrounding lobbying that would not have been
8 conducted but for the lobbying itself. In applying this test, I removed
9 O&M expenses associated with stakeholder engagement, state
10 government affairs, and federal affairs that were recorded above the
11 line.

12 **DISTRIBUTION VEGETATION MANAGEMENT**

13 **Q. PLEASE EXPLAIN THE PUBLIC STAFF’S ADJUSTMENT TO**
14 **DISTRIBUTION VEGETATION MANAGEMENT.**

15 A. I have made an adjustment to distribution vegetation management
16 expenses (VM) to include a reasonable level for the test period in this
17 case. The adjustment to distribution VM is calculated based on the
18 production costs incurred during the test period and adjusted to
19 reflect the actual cost increases for which the Company has signed
20 contracts. Vegetation Management for distribution and transmission
21 is further discussed in the testimony of Public Staff witness
22 Williamson.

1 CUSTOMER CONNECT

2 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO CUSTOMER**
3 **CONNECT.**

4 A. In this case, the Company included an amount of forecasted O&M
5 costs that it expects to incur during the 2018-2020 time frame related
6 to its Customer Connect project. As stated in the Company's
7 testimony and data request responses, the Customer Connect
8 project is currently planned to be in service in 2022 and will replace
9 the Company's current billing system. I have made an adjustment to
10 remove the forecasted O&M amounts the Company plans to spend
11 between 2018 and the in-service date. The rationale for this
12 adjustment is that the system is in the analytics stage and is currently
13 non-functional. Specifically, the Company is in the process of
14 gathering customer data to build and develop a platform to enhance
15 customer interactions with the Company. Based on my
16 understanding of this project, full functionality of this project for DEC
17 is not expected until the summer of 2022.

18 Although the Public Staff cannot agree that the forecasted O&M
19 costs related to a currently non-functional system should be
20 recovered in current rates, we do not oppose the approval of a
21 regulatory asset for the Customer Connect project, based on the
22 language of section III(K) of the Agreement and Stipulation of Partial

1 Settlement filed on November 27, 2017, by Duke Energy Progress,
2 LLC and the Public Staff, in Docket No. E-2, Sub 1142. By approving
3 a regulatory asset for the Customer Connect project, the
4 Commission will enable the Company to move forward with the
5 project while protecting ratepayers from funding estimated costs for
6 a system that is not yet functional. Public Staff witness Floyd will
7 provide further testimony on Customer Connect.

8 **INCOME TAXES**

9 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO INCOME TAXES.**

10 A. I have updated the income taxes expense to reflect the decrease in
11 the federal income tax rate from 35% to 21% as well as to remove
12 the Manufacturing Tax Deduction to align with the Federal Tax Cuts
13 and Jobs Act signed into law in December 2017.

14 The Public Staff reserves the right to supplement its filing in this
15 docket at a later date to include the flowback of EDIT related to the
16 federal tax rate decrease to ratepayers. Currently, the Public Staff is
17 awaiting information from the Company that will not be available until
18 early February in order to appropriately calculate this amount.
19 Furthermore, the Public Staff reserves the right to true-up
20 adjustments related to the federal tax decrease, including EDIT,
21 based upon a Commission Order in Docket No. M-100, Sub 148.

1 **SPONSORSHIPS AND DONATIONS**

2 **Q. WHAT ADJUSTMENT HAVE YOU MADE FOR SPONSORSHIPS**
3 **AND DONATIONS?**

4 A. I have adjusted O&M expenses to remove amounts charged to O&M
5 expense for sponsorships and charitable donations. Specifically, I
6 have excluded from expenses amounts paid to the U.S. Chamber of
7 Commerce, other chambers of commerce, the NC Chamber
8 Foundation, and political related donations. These expenses should
9 be disallowed because they do not represent actual costs of
10 providing electric service to customers.

11 **INTEREST SYNCHRONIZATION ADJUSTMENT**

12 **Q. PLEASE EXPLAIN YOUR INTEREST SYNCHRONIZATION**
13 **ADJUSTMENT.**

14 A. The Company adjusted income tax expense to reflect interest
15 synchronization with its proposed capital structure, cost of debt and
16 rate base. I have also adjusted income tax expense to reflect the
17 deduction of the pro forma level of interest resulting from the
18 application of the Public Staff's recommended return and capital
19 structure to its recommended rate base.

1 **CASH WORKING CAPITAL EFFECT OF INCREASE**

2 **Q. PLEASE EXPLAIN THE ADJUSTMENT TO CASH WORKING**
3 **CAPITAL FOR THE PROPOSED INCREASE.**

4 A. The cash working capital lead-lag effect of the proposed revenue
5 decrease as recommended by the Public Staff has been calculated
6 on Boswell Exhibit 1, Schedule 2-1(e).

7 **EXCESS DEFERRED INCOME TAXES (EDIT)**

8 **Q. PLEASE EXPLAIN THE EDIT RIDER.**

9 A. In this case, the Company included an adjustment to amortize the
10 excess deferred state taxes that it collected pursuant to the
11 Commission's May 13, 2014 order in Docket No. M-100, Sub 138.
12 The Company proposes that the excess deferred income taxes
13 (EDIT) addressed in this order be returned to customers over a five-
14 year period. The Public Staff believes that it would be more
15 beneficial to return the EDIT to customers through a rider that will
16 expire at the end of a two-year period. Boswell Exhibit 2 sets forth
17 the Public Staff's calculations for the EDIT Rider.

1 **ESTABLISHMENT OF A**

2 **GRID RELIABILITY AND RESILIENCY RIDER (GRR)**

3 **Q. PLEASE EXPLAIN THE GRR.**

4 A. In this case, the Company has requested a Grid Reliability and
5 Resiliency Rider and included \$35,666,000 as part of the total
6 requested increase, as shown on Company witness McManeus
7 Exhibit 2. Based on the recommendations of Public Staff witnesses
8 Williamson and Maness, I have removed this amount, as shown on
9 Boswell Exhibit 1, Schedule 1.

10 **ADDITIONAL COMMENTS**

11 **Q. DO YOU HAVE ADDITIONAL COMMENTS?**

12 A. Yes. I have additional comments with regard to the following items:

13 (1) Lead-Lag study

14 (2) Company's January 16, 2018 supplemental filing

15 **Q. WHAT ADDITIONAL COMMENTS DO YOU HAVE CONCERNING**
16 **THE LEAD-LAG STUDY?**

17 A. As part of its filing in this case, DEC submitted a lead-lag study
18 performed by Ernst & Young, LLP in 2010 using fiscal year 2009 data
19 (the 2009 E&Y study). In conversations with Company personnel,
20 DEC has informally advised the Public Staff that it did not

1 commission a new lead-lag study for this case because the Company
2 believed the existing study was still valid. The Public Staff reviewed
3 documentation corresponding to samples of select 2016 test year
4 transactions. The purpose of this sampling was to verify that the
5 Company's 2016 test year lead-lag metrics were materially
6 consistent with those determined in connection with the prior rate
7 cases in Docket Nos. E-7, Sub 1026 and Sub 989. Based upon the
8 Public Staff's request of the sample items, the Company submitted
9 files containing updated computations based upon 2016 data for
10 certain schedules. The Public Staff recalculated the lead- lag study
11 utilizing the sampled updated lead day metrics and found that the
12 Company's lead day times using the 2016 data were materially
13 different for several of the schedules presented. However, any
14 adjustment to the lead-lag metrics would require a fully updated lead-
15 lag study on all components of DEC's revenues and expenses.

16 The Public Staff believes that a fully updated lead- lag study on all
17 components should have been completed and recommends that the
18 Commission direct the Company to prepare and file a lead-lag study
19 in its next rate case.

20 **Q. WHAT ARE YOUR ADDITIONAL COMMENTS REGARDING THE**
21 **COMPANY'S JANUARY 16, 2018 SUPPLEMENTAL FILING?**

1 A. The Public Staff is aware of the supplemental filing; however, given
2 the timing of the supplemental filing and the the due date of the
3 Public Staff's testimony, the Public Staff could not perform an audit
4 on the Company's updated information in the short time before it was
5 due to file testimony. The Public Staff reserves the right to file its
6 own supplemental testimony related to the Company's January 16,
7 2018 supplemental filing once an audit of the updated information is
8 completed.

9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10 A. Yes, it does.

Appendix A

MICHELLE M. BOSWELL**Qualifications and Experience**

I graduated from North Carolina State University in 2000 with a Bachelor of Science degree in Accounting. I am a Certified Public Accountant.

I joined the Public Staff in September 2000. I have performed numerous audits and/or presented testimony and exhibits before the Commission addressing a wide range of electric, natural gas, and water topics. I have performed audits and/or presented testimony in Duke Energy's 2010 REPS Cost Recovery Rider; the 2008 REPS Compliance Reports for North Carolina Municipal Power Agency 1, North Carolina Eastern Municipal Power Agency, GreenCo Solutions, Inc., and EnergyUnited Electric Membership; four recent Piedmont rate cases; PSNC's 2016 rate case, DNCP's 2012 rate case, DEP's 2013 rate case, several Piedmont, NUI, and Toccoa annual gas cost reviews; Piedmont and NUI's merger; and Piedmont and NCNG's merger.

Additionally, I have filed testimony and exhibits in numerous water rate cases and performed investigations addressing a wide range of topics and issues related to the water, electric, and telephone industries.

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13	ADJUSTMENT TO COAL INVENTORY	2-1(c)
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17	SUMMARY OF REGULATORY ASSETS & LIABILITIES	2-2
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26	CALCULATION OF BILL-RELATED EXPENSES	3-1(b)(5)
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28	CALCULATION OF DEPRECIATION EXPENSE ON PLANT UPDATE	3-1(c)(1)
29	ADJUSTMENT TO UPDATE REVENUES TO NOVEMBER 30, 2017	3-1(d)
30	CALCULATION OF ADJUSTMENT TO REVENUES AND FUEL RELATED EXPENSES TO UPDATE CUSTOMER GROWTH TO NOVEMBER 30, 2017	3-1(d)(1)

INDEX TO BOSWELL EXHIBIT 1

	<u>Title</u>	<u>Schedule Number</u>
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34	ADJUSTMENT TO REMOVE EDIT LIABILITY FROM BASE RATES	3-1(g)
35	ADJUSTMENT TO CUSTOMER CONNECT EXPENSES	3-1(h)
36	ADJUSTMENT TO DUKE PIEDMONT COSTS TO ACHIEVE	3-1(i)
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39	ADJUSTMENT TO EXECUTIVE COMPENSATION	3-1(l)
40	ADJUSTMENT TO AVIATION EXPENSES	3-1(m)
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50	ADJUSTMENT TO LEE NUCLEAR COST AMORTIZATION	3-1(u)
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54	CALCULATION OF INFLATION RATE	3-1(x)(1)
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DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
REVENUE IMPACT OF PUBLIC STAFF ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1
Page 1 of 2

Line No.	Item	Amount
1	Revenue requirement increase per Company application	\$612,647 ^{1/}
2	Revenue impact of Company update	(13,928) ^{2/}
3	Revenue requirement increase per Company after updates	598,719
4	Revenue impact of Public Staff adjustments: ^{3/}	
5	Change in equity ratio from 53.00% to 50.00% equity	(38,846)
6	Change in debt cost rate from 4.740% to 4.570%	(11,781)
7	Change in return on equity from 10.75% to 9.10%	(149,795)
8	Reflect impact of Tax Cuts and Jobs Act on income tax expense	(210,542) ^{4/}
9	Adjust test year revenues	(9,518)
10	Update plant and accumulated depreciation to November 30, 2017	(39,650)
11	Update revenues to November 30, 2017	(11,565)
12	Adjust distribution vegetation management	(12,863)
13	Adjust allocations by DEBS to DEC	(4,123)
14	Remove EDIT refund from base rates for treatment as a rider	62,024 ^{5/}
15	Remove Customer Connect expenses	(10,730)
16	Adjust aviation expenses	(1,690)
17	Adjust executive compensation	(344)
18	Adjust outside services	(2,124)
19	Remove Duke-Piedmont costs to achieve (CTAs)	(6,472)
20	Adjust Lee CC addition to plant in service	(7,822)
21	Adjust Lee CC deferral	(5,120)
22	Remove ongoing environmental costs	(201,226)
23	Adjust depreciation rates	(40,519)
24	Adjust incentives	(25,226)
25	Adjust deferred environmental costs	(113,677)
26	Adjust coal inventory	(3,058)
27	Adjust Lee nuclear cost amortization	(17,778)
28	Adjust fuel & fuel related revenue and expenses	0
29	Adjust sponsorships & donations	(488)
30	Adjust lobbying expense	(549)
31	Adjust Board of Directors expense	(2,430)
32	Adjust salaries and wages expense	(628)
33	Adjust nuclear decommissioning expense	(18,270)
34	Adjust inflation to November 30, 2017	397
35	Adjust cash working capital under present rates	2,356
36	Adjust cash working capital under proposed rates	(5,928)
37	Rounding	(1)
38	Total revenue impact of Public Staff adjustments	(887,986)
39	Public Staff recommended increase / (decrease) in base rate revenue requirement	(\$289,267) ^{6/}
40	Public Staff recommended increase / (decrease) in base rate revenue requirement (L39)	(\$289,267)
41	Annual EDIT Rider recommended by Public Staff for two year period	(136,389) ^{5/}
42	Public Staff recommended change in revenue requirement for first two years (L40 + L41)	(\$425,656)
43	Public Staff recommended increase / (decrease) in base rate revenue requirement (L39)	(\$289,267)
44	Adjustment to remove Lee CC from plant in service and include in CWIP	(9,011) ^{7/}
45	Public Staff recommended change in base rate revenue requirement if Lee CC is not in service	(\$298,278)
46	Revenue requirement impact of Company proposed Grid Reliability and Resiliency Rider	\$35,666 ^{8/}
47	Public Staff adjustment to remove Grid Reliability and Resiliency Rider	(35,666) ^{9/}
48	Revenue requirement impact of Grid Reliability and Resiliency Rider per Public Staff	\$0

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DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
REVENUE IMPACT OF PUBLIC STAFF ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1
Page 2 of 2

Line No.	Item	Amount
1/	McManeus Exhibit 1, Page 2, Line 8.	
2/	Based on McManeus Exhibit 1, Page 2 after November 2017 update provided by Company to Public Staff on December 18, 2017.	
3/	Calculated based on Boswell Exhibit 1, Schedules 2, 3, 4, 5, and backup schedules.	
4/	Boswell Exhibit 1, Schedule 3-1, Line 17, Column (a) plus impact of federal income tax rate decrease on Company proposed revenue increase of (\$105,941).	
5/	The Public Staff is recommending that the EDIT regulatory liability be refunded through a two year rider. As a result, the Public Staff has removed the amounts included by the Company in the calculation of its revenue requirement associated with the EDIT refund, and instead has calculated a separate rider that will credit customers for the EDIT refund over a two year period. The calculation of the annual EDIT rider is shown on Boswell Exhibit 2.	
6/	Boswell Exhibit 1, Schedule 5, Line 5.	
7/	Boswell Exhibit 1, Schedule 1-4, Line 22.	
8/	McManeus Exhibit 2, Line 4.	
9/	Based on the recommendation of Public Staff witness Maness.	

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Jan 23 2018

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUPPORT FOR RECONCILIATION SCHEDULE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1-1

Line No.	Item	Rate Base Impact (a)	Income Statement Impact (b)	Total Revenue Impact (c)
1	Update plant and accumulated depreciation to November 30, 2017	(\$30,400)	(\$9,250)	(\$39,650)
2	Remove EDIT refund for treatment as a rider	10,649	51,375	62,024
3	Adjust depreciation rates	3,641	(44,160)	(40,519)
4	Adjust deferred environmental costs	(22,434)	(91,243)	(113,677)
5	Adjust Lee nuclear cost amortization	(16,989)	(789)	(17,778)
6	Adjust Lee CC costs	(1,463)	(6,359)	(7,822)
7	Adjust Lee CC deferral	(750)	(4,370)	(5,120)
8	Adjust nuclear decommissioning expense	1,227	(19,497)	(18,270)

1/ Boswell Exhibit 1, Schedule 2-1, Line 13.

2/ Boswell Exhibit 1, Schedule 3-1, Line 17.

3/ Column (a) plus Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF GROSS REVENUE EFFECT FACTORS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1-2

Line No.	Item	Capital Structure (a)	Cost Rates (b)	Retention Factor (c)	Gross Revenue Effect (d)
1	<u>Rate Base Factor</u>				
2	Long-term debt	50.000% 1/	4.570% 1/	0.9966903 2/	0.0229259 4/
3	Common equity	50.000% 1/	9.10% 1/	0.7608544 3/	0.0598012 4/
4	Total (Sum of Lines 2 and 3)	<u>100.000%</u>			<u>0.0827271</u>
					<u>Amount</u>
5	<u>Net Income Factor</u>				
6	Total revenue				1.0000000
7	Uncollectibles				0.0019124 5/
8	Balance (L6 - L7)				0.9980876
9	Regulatory fee (L8 x 0.140%)	6/			0.0013973
10	Balance (L8 - L9)				0.9966903
11	State income tax (L10 x 3.3695%)	7/			0.0335835
12	Balance (L10 - L11)				0.9631068
13	Federal income tax (L12 x 21%)	8/			0.2022524
14	Retention factor (L12 - L13)				<u>0.7608544</u>

1/ Per Public Staff witness Parcell.

2/ Line 10.

3/ Line 14.

4/ Column (a) times Column (b) divided by Column (c).

5/ NCUC Form E-1, Item No. 10, NC-0105, Line 4.

6/ Current regulatory fee rate effective July 1, 2016.

7/ Boswell Exhibit 1, Schedule 1-3, Line 4, Column (a).

8/ Statutory rate.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF COMPOSITE
INCOME TAX RATE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1-3

Line No.	Item	Total System (a)	North Carolina (b)	South Carolina (c)
1	<u>Weighted state income tax rate</u>			
2	Apportionment factor		68.3525% ^{2/}	26.3780% ^{2/}
3	State income tax rate		3.00% ^{3/}	5.00% ^{3/}
4	Weighted state income tax rate	<u>3.3695% ^{1/}</u>	<u>2.05058% ^{4/}</u>	<u>1.31890% ^{4/}</u>
5	<u>Composite income tax rate</u>			
6	Weighted state income tax rate (L4)	3.3695%		
7	Federal income tax rate	21% ^{5/}		
8	Composite income tax rate	23.6619% ^{6/}		

1/ Sum of Columns (b) and (c).

2/ NCUC Form E-1, Item No. 10, NC-0104, Column (b).

3/ NCUC Form E-1, Item No. 10, NC-0104, Column (a).

4/ Line 2 times Line 3.

5/ Statutory rate.

6/ 1 minus ((1 minus Line 6) times (1 minus Line 7)).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF IMPACT OF INCLUDING LEE
COMBINED CYCLE IN PLANT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 1-4

Line No.	Item	Amounts Included by Company (a)	Public Staff Adjustments (b)	Amounts Included by Public Staff (c)	Adjustment If Not In Service by Hearing (d)	Revenue Impact (e)
1	Rate Base Items					
2	Plant in service	\$381,433 ^{1/}	\$0	\$381,433	(\$381,433)	
3	Accumulated depreciation	(10,795) ^{1/}	306 ^{3/}	(10,489)	10,489	
4	Accumulated deferred income taxes:					
5	ADIT associated with plant addition	(71,838) ^{1/}	0 ^{3/}	(71,838)	71,838	
6	ADIT associated with unamortized balance of deferral	(5,359) ^{2/}	5,359 ^{4/}	0	0	
7	Materials and supplies	23,319 ^{1/}	(17,989) ^{3/}	5,330	(5,330)	
8	Regulatory assets and liabilities	14,424 ^{2/}	(14,424) ^{4/}	0	0	
9	Construction work in progress	0	0	0	381,433 ^{10/}	
10	Total impact to rate base (Sum of L2 thru L9)	<u>\$331,184</u>	<u>(\$26,748)</u>	<u>\$304,436</u>	<u>\$76,997</u>	\$6,370 ^{11/}
11	Income Statement Items					
12	Other O&M expense	\$6,031 ^{1/}	(\$6,031) ^{5/}	\$0	\$0	
13	Depreciation and amortization expense:					
14	Depreciation expense on plant addition	10,795 ^{1/}	(306) ^{5/}	10,489	(10,489)	
15	Amortization expense on deferral	7,212 ^{2/}	(4,355) ^{4/}	2,857	(2,857)	
16	General taxes	1,985 ^{1/}	0	1,985	(1,985)	
17	Income taxes:					
18	Income tax impact of plant addition	(6,995) ^{1/}	4,043 ^{6/}	(2,952)	2,952	
19	Income tax impact of deferral	(2,682) ^{2/}	2,006 ^{7/}	(676)	676	
20	Total electric operating expenses (Sum of L12 thru L19)	<u>16,346</u>	<u>(4,643)</u>	<u>11,703</u>	<u>(11,703)</u>	
21	Total impact to net operating income (-L20)	<u>(\$16,346)</u>	<u>\$4,643</u>	<u>(\$11,703)</u>	<u>\$11,703</u>	(15,381) ^{12/}
22	Total revenue impact (L10 + L21)					<u>(\$9,011)</u>

- 1/ McManeus Revised Supplemental Exhibit 1, Page 23, NC-1200(C).
2/ McManeus Revised Supplemental Exhibit 1, Page 28, NC-1300(C).
3/ Boswell Exhibit 1, Schedule 2-1(b).
4/ Boswell Exhibit 1, Schedule 3-1(p).
5/ Boswell Exhibit 1, Schedule 3-1(o).
6/ (Company tax adjustment in Column (a) divided by 37.1902% times 23.6619%) minus Company tax adjustment in Column (a) plus tax impact of Public Staff adjustment from Boswell Exhibit 1, Schedule 3-1, Column (q).
7/ (Company tax adjustment in Column (a) divided by 37.1902% times 23.6619%) minus Company tax adjustment in Column (a) plus tax impact of Public Staff adjustment from Boswell Exhibit 1, Schedule 3-1, Column (r).
8/ Column (a) plus Column (b).
9/ Negative of amount in Column (c) unless footnoted otherwise.
10/ Plant amount from Column (c), Line 2.
11/ Line 10, Column (d) times Boswell Exhibit 1, Schedule 1-2, Line 4, Column (d).
12/ Negative of amount in Line 21, Column (d) divided by Boswell Exhibit 1, Schedule 1-2, Line 14.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ORIGINAL COST RATE BASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2

Line No.	Item	Under Present Rates			After Public Staff Recommended Decrease	
		NC Retail Adjusted Per Company	Public Staff Adjustments	After Public Staff Adjustments	Rate Decrease	After Rate Decrease
		1/ (a)	2/ (b)	3/ (c)	(d)	5/ (e)
1	Electric plant in service	\$26,475,675	(\$35,571)	\$26,440,104	\$0	\$26,440,104
2	Accumulated depreciation and amortization	(10,044,872)	(287,589)	(10,332,461)	-	(10,332,461)
3	Net electric plant in service (L1 + L2)	16,430,803	(323,160)	16,107,643	-	16,107,643
4	Materials and supplies	681,625	(54,949)	626,676	-	626,676
5	Operating funds per lead-lag study	163,887	28,484	192,371	(23,909) 4/	168,462
6	Unamortized debt	81,373	-	81,373	-	81,373
7	Regulatory assets and liabilities	1,847,118	(548,426)	1,298,692	-	1,298,692
8	Customer deposits	(102,720)	-	(102,720)	-	(102,720)
9	Accumulated deferred income taxes	(5,000,198)	206,370	(4,793,828)	-	(4,793,828)
10	Operating reserves	(287,107)	-	(287,107)	-	(287,107)
11	Construction work in progress	-	-	-	-	-
12	Total original cost rate base (Sum of L3 thru L11)	<u>\$13,814,781</u>	<u>(\$691,681)</u>	<u>\$13,123,100</u>	<u>(\$23,909)</u>	<u>\$13,099,191</u>

1/ Based on McManeus Exhibit 1 after November 2017 update provided by Company to Public Staff on December 18, 2017.

2/ Boswell Exhibit 1, Schedule 2-1, Column (k).

3/ Column (a) plus Column (b).

4/ Boswell Exhibit 1, Schedule 2-1(e), Line 71, Column (k).

5/ Column (c) plus Column (d).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF RATE BASE
ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1
Page 1 of 2

Line No.	Item	Update Plant and Accumulated Depreciation to 11/30/17 ^{1/}	Remove EDIT Refund for Treatment as a Rider ^{2/}	Adjust Depreciation Rates ^{3/}	Remove Deferred Environmental Costs ^{4/}	Adjust Lee CC Costs ^{5/}	Adjust Lee CC Deferral ^{6/}
		(a)	(b)	(c)	(d)	(e)	(f)
1	Electric plant in service	(\$35,571)	\$0	\$0	\$0	\$0	\$0
2	Accumulated depreciation and amortization	(331,908)	-	44,013	-	306	-
3	Net electric plant in service (L1 + L2)	(367,479)	-	44,013	-	306	-
4	Materials and supplies	-	-	-	-	(17,989)	-
5	Operating funds per lead-lag study	-	-	-	-	-	-
6	Unamortized debt	-	-	-	-	-	-
7	Regulatory assets and liabilities	-	204,821	-	(431,491)	-	(14,424)
8	Customer deposits	-	-	-	-	-	-
9	Accumulated deferred income taxes	-	(76,094)	-	160,305	-	5,359
10	Operating reserves	-	-	-	-	-	-
11	Construction work in progress	-	-	-	-	-	-
12	Total original cost rate base (Sum of L3 thru L11)	<u>(\$367,479)</u>	<u>\$128,727</u>	<u>\$44,013</u>	<u>(\$271,186)</u>	<u>(\$17,683)</u>	<u>(\$9,065)</u>
13	Revenue requirement impact ^{12/}	<u>(\$30,400)</u>	<u>\$10,649</u>	<u>\$3,641</u>	<u>(\$22,434)</u>	<u>(\$1,463)</u>	<u>(\$750)</u>

1/ Boswell Exhibit 1, Schedule 2-1(a), Line 3.

2/ Boswell Exhibit 1, Schedule 3-1(g).

3/ Boswell Exhibit 1, Schedule 3-1(j), Line 9.

4/ Based on recommendation of Public Staff witness Maness.

5/ Boswell Exhibit 1, Schedule 2-1(b).

6/ Boswell Exhibit 1, Schedule 3-1(p).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF RATE BASE
ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1
Page 2 of 2

Line No.	Item	Adjust Coal Inventory 7/ (g)	Adjust Lee Nuclear Cost 8/ (h)	Adjust Nuclear Decommissioning Expense 9/ (i)	Adjust Cash Working Capital 10/ (j)	Total Rate Base Adjustments 11/ (k)
1	Electric plant in service	\$0	\$0	\$0	\$0	(\$35,571)
2	Accumulated depreciation and amortization	-	-	-	-	(287,589)
3	Net electric plant in service (L1 + L2)	-	-	-	-	(323,160)
4	Materials and supplies	(36,960)	-	-	-	(54,949)
5	Operating funds per lead-lag study	-	-	-	28,484	28,484
6	Unamortized debt	-	-	-	-	-
7	Regulatory assets and liabilities	-	(326,764)	19,432	-	(548,426)
8	Customer deposits	-	-	-	-	-
9	Accumulated deferred income taxes	-	121,398	(4,598)	-	206,370
10	Operating reserves	-	-	-	-	-
11	Construction work in progress	-	-	-	-	-
12	Total original cost rate base (Sum of L3 thru L11)	<u>(\$36,960)</u>	<u>(\$205,366)</u>	<u>\$14,834</u>	<u>\$28,484</u>	<u>(\$691,681)</u>
13	Revenue requirement impact 12/	<u>(\$3,058)</u>	<u>(\$16,989)</u>	<u>\$1,227</u>	<u>\$2,356</u>	<u>(\$57,221)</u>

7/ Boswell Exhibit 1, Schedule 2-1(c).

8/ Boswell Exhibit 1, Schedule 3-1(u).

9/ Boswell Exhibit 1, Schedule 3-1(w).

10/ Boswell Exhibit 1, Schedule 2-1(d), Line 75.

11/ Sum of Column (a) through Column (j).

12/ Line 12 times rate base retention factor of 0.0827271 from Boswell Exhibit 1, Schedule 1-2.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO UPDATE PLANT AND
ACCUMULATED DEPRECIATION
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(a)

Line No.	Item	Plant in Service (a)	Accumulated Depreciation (b)
1	Adjustment to update balances to 11/30/17	(\$35,571) ^{1/}	(\$330,037) ^{2/}
2	Adjustment for annualization of depreciation expense	0	(1,871) ^{3/}
3	Total adjustment to update plant and accumulated depreciation (L1 + L2)	<u>(\$35,571)</u>	<u>(\$331,908)</u>

1/ Boswell Exhibit 1, Schedule 2-1(a)(1), Line 15, Column (e).

2/ Boswell Exhibit 1, Schedule 2-1(a)(2), Line 11, Column (e).

3/ Boswell Exhibit 1, Schedule 2-1(a)(3), Line 10.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO UPDATE PLANT IN
SERVICE TO NOVEMBER 30, 2017
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(a)(1)

Line No.	Item	Total System			NC Retail Percentage ^{4/}	NC Retail Amount ^{5/}
		Amount As Of 11/30/2017 ^{1/} (a)	Amount As Of 12/31/2016 ^{2/} (b)	Change in Plant in Service ^{3/} (c)		
1	Steam plant	\$7,684,676	\$7,547,932	\$136,744		
2	Hydro plant	2,142,175	2,102,576	39,599		
3	Other production plant	2,539,725	2,411,931	127,794		
4	Nuclear plant	8,336,754	8,197,484	139,270		
5	Total production plant	20,703,330	20,259,923	443,407	67.0068%	\$297,113 ^{5/}
6	Transmission plant	3,839,173	3,568,697	270,476	51.2819%	138,705 ^{5/}
7	Distribution plant	11,346,224	10,753,028	593,196	73.9544%	438,695 ^{5/}
8	General plant	1,108,303	903,892	204,411	68.8082%	140,652 ^{5/}
9	Intangible plant	940,372	817,550	122,822	68.8082%	84,512 ^{5/}
10	Total plant in service	<u>\$37,937,402</u>	<u>\$36,303,090</u>	<u>\$1,634,312</u>		<u>\$1,099,677</u>
11	Update to plant (L10)					\$1,099,677
12	Less: additional plant related to REPS					4,600 ^{6/}
13	Update to plant per Public Staff (L11 - L12)					1,095,077
14	Company adjustment for 2017 plant additions					1,130,648 ^{7/}
15	Public Staff adjustment to update plant (L13 - L14)					<u>(\$35,571)</u>

- 1/ Based on Company response to Public Staff Data Request No. 41, Item 3.
2/ Based on Company response to Public Staff Data Request No. 41, Item 2.
3/ Column (a) minus Column (b).
4/ McManeus Revised Supplemental Exhibit 1, Page 17, NC-1101(C), Lines 15 through 18, NC Retail Allocation Column.
5/ Column (c) times Column (d).
6/ Based on response to Public Staff Data Request No. 79, Item 4.
7/ McManeus Revised Supplemental Exhibit 1, Page 17, NC-1101(C), Line 19, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO UPDATE
ACCUMULATED DEPRECIATION TO
NOVEMBER 30, 2017
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(a)(2)

Line No.	Item	Total System			NC Retail Percentage ^{4/}	NC Retail Amount
		Amount As Of 11/30/2017 ^{1/}	Amount As Of 12/31/2016 ^{2/}	Change in Accumulated Depreciation ^{3/}		
		(a)	(b)	(c)	(d)	(e)
1	Production plant	(\$8,236,429)	(\$7,889,891)	(\$346,538)	67.0068%	(\$232,204) ^{5/}
2	Transmission plant	(1,400,626)	(1,389,507)	(11,119)	51.2819%	(5,702) ^{5/}
3	Distribution plant	(4,689,515)	(4,561,336)	(128,179)	73.9544%	(94,794) ^{5/}
4	General plant	(397,080)	(361,957)	(35,123)	68.8082%	(24,168) ^{5/}
5	Intangible plant	(538,817)	(502,789)	(36,028)	68.8082%	(24,790) ^{5/}
6	Total accumulated depreciation	<u>(\$15,262,467)</u>	<u>(\$14,705,480)</u>	<u>(\$556,987)</u>		<u>(\$381,658)</u>
7	Change in accumulated depreciation (L6)					(\$381,658)
8	Less: Non-fuel rider activity					(355) ^{6/}
9	Public Staff adjustment to update to 11/30/17					(381,303)
10	Company adjustment to update to 11/30/17					(51,266) ^{7/}
11	Public Staff adjustment (L9 - L10)					<u>(\$330,037)</u>

1/ Based on Company response to Public Staff Data Request No. 41, Item 8.

2/ Based on Company response to Public Staff Data Request No. 41, Item 7.

3/ Column (a) minus Column (b).

4/ McManeus Revised Supplemental Exhibit 1, Page 17, NC-1101(C), Lines 22 thru 25, NC Retail Allocation Column.

5/ Column (c) times Column (d).

6/ Based on response to Public Staff Data Request No. 79, Item 4.

7/ McManeus Revised Supplemental Exhibit 1, Page 17, NC-1101(C), Line 26, NC Retail Allocation Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO ACCUMULATED
DEPRECIATION FOR ANNUALIZATION OF
DEPRECIATION EXPENSE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(a)(3)

Line No.	Item	Annualized Depreciation Expense at 11/30/17 ^{1/}	Per Books Depreciation Expense for Twelve Months Ended 11/30/17 ^{1/}	Difference ^{2/}	NC Retail Percentage ^{3/}	NC Retail Amount
		(a)	(b)	(c)	(d)	(e)
1	Production plant	\$599,580	\$589,098	\$10,482	67.0068%	\$7,024 ^{4/}
2	Transmission plant	79,181	75,536	3,645	51.2819%	1,869 ^{4/}
3	NC Distribution plant	185,082	179,506	5,576	99.5866%	5,553 ^{4/}
4	SC Distribution plant	65,537	61,086	4,451	0.0000%	- ^{4/}
5	General plant	57,590	61,862	(4,272)	68.8082%	(2,939) ^{4/}
6	Intangible plant	49,940	49,940	-	68.8082%	- ^{4/}
7	Total accumulated depreciation	<u>\$1,036,910</u>	<u>\$1,017,028</u>	<u>\$19,882</u>		<u>\$11,507</u>
8	Adjustment to accumulated depreciation (-L7)					(\$11,507)
9	Company adjustment					(9,636) ^{5/}
10	Public Staff adjustment to accumulated depreciation					<u>(\$1,871)</u>

1/ Based on Company revised response to Public Staff Data Request No. 79, Item 14.

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

3/ NCUC Form E-1, Item No. 10, NC-0801, Page 1, Lines 3 thru 8, NC Retail Allocation Column.

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

5/ NCUC Form E-1, Item No. 10, NC-0801, Page 1, Line 29, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO LEE COMBINED CYCLE ADDITION
IMPACT TO RATE BASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(b)

Line No.	Item	Amount
1	<u>Accumulated Depreciation</u>	
2	Adjustment to accumulated depreciation	<u>\$306</u> ^{1/}
3	<u>Materials and Supplies</u>	
4	Lee Combined Cycle - estimated incremental inventory updated per Company	\$8,000 ^{2/}
5	NC Retail Allocation	<u>66.6244%</u> ^{3/}
6	Lee Combined Cycle - estimated incremental inventory NC Retail (L4 x L5)	5,330
7	Lee Combined Cycle - estimated incremental inventory as filed by Company	<u>23,319</u> ^{4/}
8	Public Staff adjustment to Lee Combined Cycle estimated incremental inventory (L6 - L7)	<u>(\$17,989)</u>

1/ Negative of Boswell Exhibit 1, Schedule 3-1(o), Line 15.

2/ From Company response to Public Staff Data Request No. 93, Item 3.

3/ McManeus Revised Supplemental Exhibit 1, Page 24, NC-1201(C), Line 28, NC Retail Allocation Column.

4/ McManeus Revised Supplemental Exhibit 1, Page 24, NC-1201(C), Line 28, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO COAL INVENTORY
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(c)

Line No.	Item	Amount
1	Estimated full load burn - excluding retirements (December 2016)	63,129 1/
2	Coal burn percentage per Public Staff	70.00% 2/
3	Target number of days in inventory per Public Staff	40 2/
4	Target coal inventory balance per Public Staff (tons) (L1 x L2 x L3)	1,767,612
5	Average delivered coal costs per ton	\$73.23 3/
6	Coal inventory balance per Public Staff (L4 x L5 / 1,000)	129,442
7	NC retail percentage	66.6244% 4/
8	Coal inventory balance per Public Staff - NC retail (L6 x L7)	86,240
9	Coal inventory balance per Company	123,200 5/
10	Adjustment to coal inventory (L8 - L9)	<u>(\$36,960)</u>

1/ NCUC Form E-1, Item No. 10, NC-1601, Line 2.

2/ Based on recommendation of Public Staff witness Metz.

3/ NCUC Form E-1, Item No. 10, NC-1601, Line 5.

4/ NCUC Form E-1, Item No. 10, NC-1601, Line 6, NC Retail Allocation Column.

5/ NCUC Form E-1, Item No. 10, NC-1601, Line 6, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF WORKING CAPITAL
FROM LEAD / LAG STUDY UNDER
PRESENT RATES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(d)

Line No.	Item	Per Books Amounts ^{1/}	Company Ratemaking Adjustments ^{2/}	After Company Adjustments ^{3/}	Public Staff Adjustments ^{4/}	After Public Staff Adjustments ^{5/}	(Lead) / Lag Days ^{6/}	Working Capital From Lead/ Lag Study ^{7/}
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Electric operating revenues:							
2	Rate revenues	\$4,837,757	(\$263,448)	\$4,574,309	(\$49,305)	\$4,525,004	38.42	\$476,280
3	Sales for resale revenues	28,216	-	28,216	-	28,216	34.61	2,675
4	Forfeited discounts	15,254	-	15,254	-	15,254	68.84	2,877
5	Miscellaneous service revenues	10,374	-	10,374	-	10,374	117.77	3,347
6	Rent revenues - extra facilities - depreciation	6,155	-	6,155	-	6,155	-	-
7	Rent revenues - extra facilities - other	19,019	-	19,019	-	19,019	38.42	2,002
8	Rent revenues - pole & line attachments	25,802	-	25,802	-	25,802	132.59	9,373
9	Tower lease revenues	7,415	-	7,415	-	7,415	(153.00)	(3,108)
10	Other electric rents	1,852	-	1,852	-	1,852	40.21	204
11	Return & depr - Catawba general plant	8,218	-	8,218	-	8,218	(15.72)	(354)
12	Other misc revenues - CIAC & comp for svc	14,253	-	14,253	-	14,253	(15.21)	(594)
13	Other misc revenues - timber sales	13	-	13	-	13	38.42	1
14	Profit or loss on sale of M&S	523	-	523	-	523	45.21	65
15	Deferred DSM costs - NC	(59)	-	(59)	-	(59)	-	-
16	Other revenue affiliate	9,132	-	9,132	-	9,132	40.46	1,012
17	Revenues from transm of electricity to others	4,703	-	4,703	-	4,703	35.50	457
18	Other electric and transmission revenues	2,672	-	2,672	-	2,672	38.42	281
19	Electric operating revenues	<u>4,991,299</u>	<u>(263,448)</u>	<u>4,727,851</u>	<u>(49,305)</u>	<u>4,678,546</u>	<u>38.58</u>	<u>494,518</u>
20	Fuel used in electric generation	977,925	205,134	1,183,059	(70,917)	1,112,142	(23.13)	(70,473)
21	Account 555 - Purchased Power	222,185	(205,795)	16,390	-	16,390	(36.23)	(1,627)
22	NRC license fees in Acct 524	22,444	-	22,444	-	22,444	9.91	609
23	NRC inspection fees in Acct 524	4,944	-	4,944	-	4,944	(101.54)	(1,375)
24	Labor expense	520,599	(7,133)	513,466	(26,623)	486,843	(40.87)	(54,518)
25	Benefits expense	96,102	(4,638)	91,464	-	91,464	(14.51)	(3,636)
26	Uncollectibles expense	9,586	-	9,586	-	9,586	-	-
27	Regulatory commission expense	8,146	-	8,146	-	8,146	(91.19)	(2,035)
28	Property insurance	20,667	-	20,667	-	20,667	142.50	8,069
29	Injuries and damages for corp	5,598	-	5,598	-	5,598	128.36	1,969
30	Other O&M expense	685,929	-	685,929	(12,855)	673,074	(26.56)	(48,978)
31	Remove non-fuel rider costs and update fuel	-	(131,780)	(131,780)	-	(131,780)	(26.77)	9,665
32	Include Lee CC addition	-	6,031	6,031	(6,031)	-	(26.77)	-
33	Adjust for inflation and amortize rate case costs	-	17,232	17,232	396	17,628	(26.77)	(1,293)
34	Adjust for ongoing environmental costs	-	200,561	200,561	(200,561)	-	(40.87)	-
35	Adjust for customer connect project	-	10,694	10,694	(10,694)	-	(27.84)	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	(4,068)	(4,068)	(16,599)	(20,667)	(27.84)	1,576
37	Adjust NC regulatory fee	-	849	849	(108)	741	(26.77)	(54)
38	Other adjustments to reg fees and uncoll.	-	(841)	(841)	93	(748)	(41.89)	86
39	Total O&M expenses	<u>2,574,125</u>	<u>86,246</u>	<u>2,660,371</u>	<u>(343,899)</u>	<u>2,316,472</u>		<u>(162,015)</u>

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF WORKING CAPITAL
FROM LEAD / LAG STUDY UNDER
PRESENT RATES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(d)

Line No.	Item	Per Books Amounts ^{1/} (a)	Company Ratemaking Adjustments ^{2/} (b)	After Company Adjustments ^{3/} (c)	Public Staff Adjustments ^{4/} (d)	After Public Staff Adjustments ^{5/} (e)	(Lead) / Lag Days ^{6/} (f)	Working Capital From Lead / Lag Study ^{7/} (g)
40	Depreciation expense	681,452	128,000	809,452	(117,702)	691,750	-	-
41	REPS rider NC amortization expense	24,580	-	24,580	-	24,580	(38.42)	(2,587)
42	Annual NOx proceeds	(84)	-	(84)	-	(84)	(3.34)	1
43	Other amortization expense	73,044	27,958	101,002	-	101,002	-	-
44	Remove non-fuel rider costs	-	(12,381)	(12,381)	-	(12,381)	(76.28)	2,587
45	Depreciation and amortization expense	<u>778,992</u>	<u>143,577</u>	<u>922,569</u>	<u>(117,702)</u>	<u>804,867</u>		<u>1</u>
46	Other taxes - NC property tax	55,622	12,803	68,425	(146)	68,279	(187.00)	(34,981)
47	Other taxes - NC franchise & deferred prop. tax	902	-	902	-	902	(14.42)	(36)
48	Other taxes - NC state unemployment tax	831	-	831	-	831	(86.73)	(197)
49	Other taxes - NC industrial comm - electric	172	-	172	-	172	(21.08)	(10)
50	Other taxes - SC property tax	72,323	-	72,323	-	72,323	(197.00)	(39,035)
51	Other taxes - SC property tax - license fee	2,391	-	2,391	-	2,391	108.00	707
52	Other taxes - NC franchise tax	19,924	-	19,924	-	19,924	-	-
53	Other taxes - SC state unemployment tax	253	-	253	-	253	(114.43)	(79)
54	Other taxes - federal payroll taxes	31,877	-	31,877	-	31,877	(42.35)	(3,699)
55	Other taxes - federal unemployment tax	291	-	291	-	291	(91.46)	(73)
56	Other taxes - federal highway use tax	26	-	26	-	26	145.99	10
57	Other taxes - highway use tax & other state tax	(107)	-	(107)	-	(107)	(38.42)	11
58	Adjust payroll taxes	-	836	836	(59)	777	(140.25)	(299)
59	Total taxes other than income	<u>184,505</u>	<u>13,639</u>	<u>198,144</u>	<u>(205)</u>	<u>197,939</u>		<u>(77,681)</u>
60	Interest on customer deposits	<u>7,558</u>	<u>-</u>	<u>7,558</u>	<u>-</u>	<u>7,558</u>	(210.50)	(4,359)
61	Current state and federal income tax	99,340	-	99,340	-	99,340	(36.03)	(9,806)
62	Deferred income taxes	328,575	-	328,575	-	328,575	-	-
63	Adjust income taxes	-	(208,310)	(208,310)	20,169	(188,141)	(36.50)	18,814
64	Total income taxes	<u>427,915</u>	<u>(208,310)</u>	<u>219,605</u>	<u>20,169</u>	<u>239,774</u>		<u>9,008</u>
65	Amortization of ITC	<u>(3,505)</u>	<u>(24)</u>	<u>(3,529)</u>	<u>-</u>	<u>(3,529)</u>	-	-
66	Total electric operating expenses	<u>3,969,590</u>	<u>35,128</u>	<u>4,004,718</u>	<u>(441,637)</u>	<u>3,563,081</u>		<u>(235,046)</u>
67	Interest expense	282,803	25,495	308,298	(9,086)	299,212	(89.75)	(73,573)
68	Income available for common equity	<u>738,906</u>	<u>(324,071)</u>	<u>414,835</u>	<u>401,418</u>	<u>816,253</u>	-	-
69	Net operating income for return	<u>1,021,709</u>	<u>(298,576)</u>	<u>723,133</u>	<u>392,332</u>	<u>1,115,465</u>		<u>(73,573)</u>
70	Total requirement	<u>\$4,991,299</u>	<u>(\$263,448)</u>	<u>\$4,727,851</u>	<u>(\$49,305)</u>	<u>\$4,678,546</u>		<u>(\$308,619)</u>

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FROM LEAD / LAG STUDY UNDER
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(in Thousands)

Boswell Exhibit 1
Schedule 2-1(d)

Line No.	Item	Per Books Amounts ^{1/} (a)	Company Ratemaking Adjustments ^{2/} (b)	After Company Adjustments ^{3/} (c)	Public Staff Adjustments ^{4/} (d)	After Public Staff Adjustments ^{5/} (e)	(Lead) / Lag Days ^{6/} (f)	Working Capital From Lead/Lag Study ^{7/} (g)
71	Cash working capital before sales tax requirement							\$185,899
72	Working capital related to sales tax							<u>6,472</u>
73	Cash working capital per Public Staff							192,371
74	Amount per Company application							<u>163,887</u> ^{2/}
75	Adjustment to cash working capital							<u><u>\$28,484</u></u>

1/ NCUC Form E-1, Item No. 14, Appendix A, Lead Lag Details, NC Retail Jurisdictional Amount.

2/ NCUC Form E-1, Item 10, NC-3302.

3/ Column (a) plus Column (b).

4/ Boswell Exhibit 1, Schedule 2-1(d)(1), Column (aa).

5/ Column (c) plus Column (d).

6/ NCUC Form E-1, Item No. 14, Appendix A, Lead Lag Details, Lead Lag Days.

7/ Column (e) divided by 365 days times Column (f).

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Boswell Exhibit 1
Schedule 2-1(d)(1)
Page 1 of 5

Line No.	Item	Adjust Income Tax Expense for Tax Cuts & Jobs Act 1/	Adjust Test Year Revenues & Related Expenses (b)	Update Plant to 11/30/2017 1/	Update Customer Growth & Usage to 11/30/2017 1/	Adjust Distribution Vegetation Management 1/	Adjust Allocations from DEBS to DEC 1/
		(a)	(b)	(c)	(d)	(e)	(f)
1	Electric operating revenues:						
2	Rate revenues	\$0	\$11,589	\$0	\$16,315	\$0	\$0
3	Sales for resale revenues	-	-	-	-	-	-
4	Forfeited discounts	-	-	-	-	-	-
5	Miscellaneous service revenues	-	-	-	-	-	-
6	Rent revenues - extra facilities - depreciation	-	-	-	-	-	-
7	Rent revenues - extra facilities - other	-	-	-	-	-	-
8	Rent revenues - pole & line attachments	-	-	-	-	-	-
9	Tower lease revenues	-	-	-	-	-	-
10	Other electric rents	-	-	-	-	-	-
11	Return & depr - Catawba general plant	-	-	-	-	-	-
12	Other misc revenues - CIAC & comp for svc	-	-	-	-	-	-
13	Other misc revenues - timber sales	-	-	-	-	-	-
14	Profit or loss on sale of M&S	-	-	-	-	-	-
15	Deferred DSM costs - NC	-	-	-	-	-	-
16	Other revenue affiliate	-	-	-	-	-	-
17	Revenues from transm of electricity to others	-	-	-	-	-	-
18	Other electric and transmission revenues	-	-	-	-	-	-
19	Electric operating revenues	-	11,589	-	16,315	-	-
20	Fuel used in electric generation	-	\$2,490	-	\$3,694	-	-
21	Account 555 - Purchased Power	-	-	-	-	-	-
22	NRC license fees in Acct 524	-	-	-	-	-	-
23	NRC inspection fees in Acct 524	-	-	-	-	-	-
24	Labor expense	-	-	-	-	-	-
25	Benefits expense	-	-	-	-	-	-
26	Uncollectibles expense	-	-	-	-	-	-
27	Regulatory commission expense	-	-	-	-	-	-
28	Property insurance	-	-	-	-	-	-
29	Injuries and damages for corp	-	-	-	-	-	-
30	Other O&M expense	-	(427)	-	1,040	-	(4,110)
31	Remove non-fuel rider costs and update fuel	-	-	-	-	-	-
32	Include Lee CC addition	-	-	-	-	-	-
33	Adjust for inflation and amortize rate case costs	-	-	-	-	-	-
34	Adjust for ongoing environmental costs	-	-	-	-	-	-
35	Adjust for customer connect project	-	-	-	-	-	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	-	-	-	(12,821)	-
37	Adjust NC regulatory fee	-	-	-	-	-	-
38	Other adjustments to reg fees and uncoll.	-	39	-	54	-	-
39	Total O&M expenses	-	2,102	-	4,788	(12,821)	(4,110)
40	Depreciation expense	-	-	(9,074)	-	-	-
41	REPS rider NC amortization expense	-	-	-	-	-	-
42	Annual NOx proceeds	-	-	-	-	-	-
43	Other amortization expense	-	-	-	-	-	-
44	Remove non-fuel rider costs	-	-	-	-	-	-
45	Depreciation and amortization expense	-	-	(9,074)	-	-	-
46	Other taxes - NC property tax	-	-	(146)	-	-	-
47	Other taxes - NC franchise & deferred prop. tax	-	-	-	-	-	-
48	Other taxes - NC state unemployment tax	-	-	-	-	-	-
49	Other taxes - NC industrial comm - electric	-	-	-	-	-	-
50	Other taxes - SC property tax	-	-	-	-	-	-
51	Other taxes - SC property tax - license fee	-	-	-	-	-	-
52	Other taxes - NC franchise tax	-	-	-	-	-	-
53	Other taxes - SC state unemployment tax	-	-	-	-	-	-
54	Other taxes - federal payroll taxes	-	-	-	-	-	-
55	Other taxes - federal unemployment tax	-	-	-	-	-	-
56	Other taxes - federal highway use tax	-	-	-	-	-	-
57	Other taxes - highway use tax & other state tax	-	-	-	-	-	-
58	Adjust payroll taxes	-	-	-	-	-	-
59	Total taxes other than income	-	-	(146)	-	-	-
60	Interest on customer deposits	-	-	-	-	-	-
61	Current state and federal income tax	-	-	-	-	-	-
62	Deferred income taxes	-	-	-	-	-	-
63	Adjust income taxes	(79,586)	2,245	2,182	2,728	3,034	973
64	Total income taxes	(79,586)	2,245	2,182	2,728	3,034	973
65	Amortization of ITC	-	-	-	-	-	-
66	Total electric operating expenses	(79,586)	4,347	(7,038)	7,516	(9,787)	(3,137)
67	Interest expense	-	-	-	-	-	-
68	Income available for common equity	2/ 79,586	7,242	7,038	8,799	9,787	3,137
69	Net operating income for return	79,586	7,242	7,038	8,799	9,787	3,137
70	Total requirement	\$0	\$11,589	\$0	\$16,315	\$0	\$0

1/ Based on adjustments made by Public Staff in Boswell Exhibit 1, Schedule 3-1.
2/ Line 19 minus Line 66 minus Line 67.

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Boswell Exhibit 1
Schedule 2-1(d)(1)
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Line No.	Item	Adjust Salaries and Wages 1/ (g)	Remove EDIT Refund for Treatment as a Rider 1/ (h)	Remove Customer Connect Expenses 1/ (i)	Remove Duke Piedmont CTAs 1/ (j)	Adjust Depreciation Rates 1/ (k)	Adjust Incentives 1/ (l)
1	Electric operating revenues:						
2	Rate revenues	\$0	\$0	\$0	\$0	\$0	\$0
3	Sales for resale revenues	-	-	-	-	-	-
4	Forfeited discounts	-	-	-	-	-	-
5	Miscellaneous service revenues	-	-	-	-	-	-
6	Rent revenues - extra facilities - depreciation	-	-	-	-	-	-
7	Rent revenues - extra facilities - other	-	-	-	-	-	-
8	Rent revenues - pole & line attachments	-	-	-	-	-	-
9	Tower lease revenues	-	-	-	-	-	-
10	Other electric rents	-	-	-	-	-	-
11	Return & depr - Catawba general plant	-	-	-	-	-	-
12	Other misc revenues - CIAC & comp for svc	-	-	-	-	-	-
13	Other misc revenues - timber sales	-	-	-	-	-	-
14	Profit or loss on sale of M&S	-	-	-	-	-	-
15	Deferred DSM costs - NC	-	-	-	-	-	-
16	Other revenue affiliate	-	-	-	-	-	-
17	Revenues from transm of electricity to others	-	-	-	-	-	-
18	Other electric and transmission revenues	-	-	-	-	-	-
19	Electric operating revenues	-	-	-	-	-	-
20	Fuel used in electric generation	-	-	-	-	-	-
21	Account 555 - Purchased Power	-	-	-	-	-	-
22	NRC license fees in Acct 524	-	-	-	-	-	-
23	NRC inspection fees in Acct 524	-	-	-	-	-	-
24	Labor expense	(591)	-	-	-	-	(25,142)
25	Benefits expense	-	-	-	-	-	-
26	Uncollectibles expense	-	-	-	-	-	-
27	Regulatory commission expense	-	-	-	-	-	-
28	Property insurance	-	-	-	-	-	-
29	Injuries and damages for corp	-	-	-	-	-	-
30	Other O&M expense	-	-	-	(6,450)	-	-
31	Remove non-fuel rider costs and update fuel	-	-	-	-	-	-
32	Include Lee CC addition	-	-	-	-	-	-
33	Adjust for inflation and amortize rate case costs	-	-	-	-	-	-
34	Adjust for ongoing environmental costs	-	-	-	-	-	-
35	Adjust for customer connect project	-	-	(10,694)	-	-	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	-	-	-	-	-
37	Adjust NC regulatory fee	-	-	-	-	-	-
38	Other adjustments to reg fees and uncoll.	-	-	-	-	-	-
39	Total O&M expenses	(591)	-	(10,694)	(6,450)	-	(25,142)
40	Depreciation expense	-	51,205	-	-	(44,013)	-
41	REPS rider NC amortization expense	-	-	-	-	-	-
42	Annual NOx proceeds	-	-	-	-	-	-
43	Other amortization expense	-	-	-	-	-	-
44	Remove non-fuel rider costs	-	-	-	-	-	-
45	Depreciation and amortization expense	-	51,205	-	-	(44,013)	-
46	Other taxes - NC property tax	-	-	-	-	-	-
47	Other taxes - NC franchise & deferred prop. tax	-	-	-	-	-	-
48	Other taxes - NC state unemployment tax	-	-	-	-	-	-
49	Other taxes - NC industrial comm - electric	-	-	-	-	-	-
50	Other taxes - SC property tax	-	-	-	-	-	-
51	Other taxes - SC property tax - license fee	-	-	-	-	-	-
52	Other taxes - NC franchise tax	-	-	-	-	-	-
53	Other taxes - SC state unemployment tax	-	-	-	-	-	-
54	Other taxes - federal payroll taxes	-	-	-	-	-	-
55	Other taxes - federal unemployment tax	-	-	-	-	-	-
56	Other taxes - federal highway use tax	-	-	-	-	-	-
57	Other taxes - highway use tax & other state tax	-	-	-	-	-	-
58	Adjust payroll taxes	(35)	-	-	-	-	-
59	Total taxes other than income	(35)	-	-	-	-	-
60	Interest on customer deposits	-	-	-	-	-	-
61	Current state and federal income tax	-	-	-	-	-	-
62	Deferred income taxes	-	-	-	-	-	-
63	Adjust income taxes	148	(12,116)	2,530	1,526	10,414	5,949
64	Total income taxes	148	(12,116)	2,530	1,526	10,414	5,949
65	Amortization of ITC	-	-	-	-	-	-
66	Total electric operating expenses	(478)	39,089	(8,164)	(4,924)	(33,599)	(19,193)
67	Interest expense	-	-	-	-	-	-
68	Income available for common equity	2/ 478	(39,089)	8,164	4,924	33,599	19,193
69	Net operating income for return	478	(39,089)	8,164	4,924	33,599	19,193
70	Total requirement	\$0	\$0	\$0	\$0	\$0	\$0

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Line No.	Item	Remove Ongoing Environmental Costs (m)	Adjust Executive Compensation (n)	Adjust Aviation Expenses (o)	Adjust Fuel & Fuel Related Expenses (p)	Adjust Lee CC Costs (q)	Adjust Lee CC Deferral (r)
1	Electric operating revenues:						
2	Rate revenues	\$0	\$0	\$0	(\$77,209)	\$0	\$0
3	Sales for resale revenues	-	-	-	-	-	-
4	Forfeited discounts	-	-	-	-	-	-
5	Miscellaneous service revenues	-	-	-	-	-	-
6	Rent revenues - extra facilities - depreciation	-	-	-	-	-	-
7	Rent revenues - extra facilities - other	-	-	-	-	-	-
8	Rent revenues - pole & line attachments	-	-	-	-	-	-
9	Tower lease revenues	-	-	-	-	-	-
10	Other electric rents	-	-	-	-	-	-
11	Return & depr - Catawba general plant	-	-	-	-	-	-
12	Other misc revenues - CIAC & comp for svc	-	-	-	-	-	-
13	Other misc revenues - timber sales	-	-	-	-	-	-
14	Profit or loss on sale of M&S	-	-	-	-	-	-
15	Deferred DSM costs - NC	-	-	-	-	-	-
16	Other revenue affiliate	-	-	-	-	-	-
17	Revenues from transm of electricity to others	-	-	-	-	-	-
18	Other electric and transmission revenues	-	-	-	-	-	-
19	Electric operating revenues	-	-	-	(77,209)	-	-
20	Fuel used in electric generation	-	-	-	(77,101)	-	-
21	Account 555 - Purchased Power	-	-	-	-	-	-
22	NRC license fees in Acct 524	-	-	-	-	-	-
23	NRC inspection fees in Acct 524	-	-	-	-	-	-
24	Labor expense	-	(343)	-	-	-	-
25	Benefits expense	-	-	-	-	-	-
26	Uncollectibles expense	-	-	-	-	-	-
27	Regulatory commission expense	-	-	-	-	-	-
28	Property insurance	-	-	-	-	-	-
29	Injuries and damages for corp	-	-	-	-	-	-
30	Other O&M expense	-	-	-	-	-	-
31	Remove non-fuel rider costs and update fuel	-	-	-	-	-	-
32	Include Lee CC addition	-	-	-	-	(6,031)	-
33	Adjust for inflation and amortize rate case costs	-	-	-	-	-	-
34	Adjust for ongoing environmental costs	(200,561)	-	-	-	-	-
35	Adjust for customer connect project	-	-	-	-	-	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	-	(1,661)	-	-	-
37	Adjust NC regulatory fee	-	-	-	(108)	-	-
38	Other adjustments to reg fees and uncoll.	-	-	-	-	-	-
39	Total O&M expenses	(200,561)	(343)	(1,661)	(77,209)	(6,031)	-
40	Depreciation expense	-	-	-	-	(306)	(4,355)
41	REPS rider NC amortization expense	-	-	-	-	-	-
42	Annual NOx proceeds	-	-	-	-	-	-
43	Other amortization expense	-	-	-	-	-	-
44	Remove non-fuel rider costs	-	-	-	-	-	-
45	Depreciation and amortization expense	-	-	-	-	(306)	(4,355)
46	Other taxes - NC property tax	-	-	-	-	-	-
47	Other taxes - NC franchise & deferred prop. tax	-	-	-	-	-	-
48	Other taxes - NC state unemployment tax	-	-	-	-	-	-
49	Other taxes - NC industrial comm - electric	-	-	-	-	-	-
50	Other taxes - SC property tax	-	-	-	-	-	-
51	Other taxes - SC property tax - license fee	-	-	-	-	-	-
52	Other taxes - NC franchise tax	-	-	-	-	-	-
53	Other taxes - SC state unemployment tax	-	-	-	-	-	-
54	Other taxes - federal payroll taxes	-	-	-	-	-	-
55	Other taxes - federal unemployment tax	-	-	-	-	-	-
56	Other taxes - federal highway use tax	-	-	-	-	-	-
57	Other taxes - highway use tax & other state tax	-	-	-	-	-	-
58	Adjust payroll taxes	-	-	(24)	-	-	-
59	Total taxes other than income	-	-	(24)	-	-	-
60	Interest on customer deposits	-	-	-	-	-	-
61	Current state and federal income tax	-	-	-	-	-	-
62	Deferred income taxes	-	-	-	-	-	-
63	Adjust income taxes	47,457	81	399	-	1,499	1,030
64	Total income taxes	47,457	81	399	-	1,499	1,030
65	Amortization of ITC	-	-	-	-	-	-
66	Total electric operating expenses	(153,104)	(262)	(1,286)	(77,209)	(4,838)	(3,325)
67	Interest expense	-	-	-	-	-	-
68	Income available for common equity	2/ 153,104	262	1,286	0	4,838	3,325
69	Net operating income for return	153,104	262	1,286	0	4,838	3,325
70	Total requirement	\$0	\$0	\$0	(\$77,209)	\$0	\$0

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Jan 23 2018

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Line No.	Item	Adjust Lee Nuclear Costs (s)	Adjust Lobbying Expense (t)	Adjust Board of Directors Expense (u)	Adjust Deferred Environmental Costs (v)	Adjust Outside Services (w)	Adjust Sponsorships and Donations (x)
1	Electric operating revenues:						
2	Rate revenues	\$0	\$0	\$0	\$0	\$0	\$0
3	Sales for resale revenues	-	-	-	-	-	-
4	Forfeited discounts	-	-	-	-	-	-
5	Miscellaneous service revenues	-	-	-	-	-	-
6	Rent revenues - extra facilities - depreciation	-	-	-	-	-	-
7	Rent revenues - extra facilities - other	-	-	-	-	-	-
8	Rent revenues - pole & line attachments	-	-	-	-	-	-
9	Tower lease revenues	-	-	-	-	-	-
10	Other electric rents	-	-	-	-	-	-
11	Return & depr - Catawba general plant	-	-	-	-	-	-
12	Other misc revenues - CIAC & comp for svc	-	-	-	-	-	-
13	Other misc revenues - timber sales	-	-	-	-	-	-
14	Profit or loss on sale of M&S	-	-	-	-	-	-
15	Deferred DSM costs - NC	-	-	-	-	-	-
16	Other revenue affiliate	-	-	-	-	-	-
17	Revenues from transm of electricity to others	-	-	-	-	-	-
18	Other electric and transmission revenues	-	-	-	-	-	-
19	Electric operating revenues	-	-	-	-	-	-
20	Fuel used in electric generation	-	-	-	-	-	-
21	Account 555 - Purchased Power	-	-	-	-	-	-
22	NRC license fees in Acct 524	-	-	-	-	-	-
23	NRC inspection fees in Acct 524	-	-	-	-	-	-
24	Labor expense	-	(547)	-	-	-	-
25	Benefits expense	-	-	-	-	-	-
26	Uncollectibles expense	-	-	-	-	-	-
27	Regulatory commission expense	-	-	-	-	-	-
28	Property insurance	-	-	-	-	-	-
29	Injuries and damages for corp	-	-	-	-	-	-
30	Other O&M expense	-	-	(2,422)	-	-	(486)
31	Remove non-fuel rider costs and update fuel	-	-	-	-	-	-
32	Include Lee CC addition	-	-	-	-	-	-
33	Adjust for inflation and amortize rate case costs	-	-	-	-	-	-
34	Adjust for ongoing environmental costs	-	-	-	-	-	-
35	Adjust for customer connect project	-	-	-	-	-	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	-	-	-	(2,117)	-
37	Adjust NC regulatory fee	-	-	-	-	-	-
38	Other adjustments to reg fees and uncoll.	-	-	-	-	-	-
39	Total O&M expenses	-	(547)	(2,422)	-	(2,117)	(486)
40	Depreciation expense	(786)	-	-	(90,941)	-	-
41	REPS rider NC amortization expense	-	-	-	-	-	-
42	Annual NOx proceeds	-	-	-	-	-	-
43	Other amortization expense	-	-	-	-	-	-
44	Remove non-fuel rider costs	-	-	-	-	-	-
45	Depreciation and amortization expense	(786)	-	-	(90,941)	-	-
46	Other taxes - NC property tax	-	-	-	-	-	-
47	Other taxes - NC franchise & deferred prop. tax	-	-	-	-	-	-
48	Other taxes - NC state unemployment tax	-	-	-	-	-	-
49	Other taxes - NC industrial comm - electric	-	-	-	-	-	-
50	Other taxes - SC property tax	-	-	-	-	-	-
51	Other taxes - SC property tax - license fee	-	-	-	-	-	-
52	Other taxes - NC franchise tax	-	-	-	-	-	-
53	Other taxes - SC state unemployment tax	-	-	-	-	-	-
54	Other taxes - federal payroll taxes	-	-	-	-	-	-
55	Other taxes - federal unemployment tax	-	-	-	-	-	-
56	Other taxes - federal highway use tax	-	-	-	-	-	-
57	Other taxes - highway use tax & other state tax	-	-	-	-	-	-
58	Adjust payroll taxes	-	-	-	-	-	-
59	Total taxes other than income	-	-	-	-	-	-
60	Interest on customer deposits	-	-	-	-	-	-
61	Current state and federal income tax	-	-	-	-	-	-
62	Deferred income taxes	-	-	-	-	-	-
63	Adjust income taxes	186	129	573	21,518	501	115
64	Total income taxes	186	129	573	21,518	501	115
65	Amortization of ITC	-	-	-	-	-	-
66	Total electric operating expenses	(600)	(418)	(1,849)	(69,423)	(1,616)	(371)
67	Interest expense	-	-	-	-	-	-
68	Income available for common equity	600	418	1,849	69,423	1,616	371
69	Net operating income for return	600	418	1,849	69,423	1,616	371
70	Total requirement	\$0	\$0	\$0	\$0	\$0	\$0

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Jan 23 2018

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
PUBLIC STAFF ADJUSTMENTS TO BE
REFLECTED IN LEAD / LAG CALCULATION
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(d)(1)
Page 5 of 5

Line No.	Item	Adjust Nuclear Decommissioning Expense 1/ (y)	Adjustment to Inflation Adjustment 1/ (z)	Interest Synchronization 1/ (aa)	Total Public Staff Adjustments 1/ (bb)
1	Electric operating revenues:				
2	Rate revenues	\$0	\$0	\$0	(\$49,305)
3	Sales for resale revenues	-	-	-	-
4	Forfeited discounts	-	-	-	-
5	Miscellaneous service revenues	-	-	-	-
6	Rent revenues - extra facilities - depreciation	-	-	-	-
7	Rent revenues - extra facilities - other	-	-	-	-
8	Rent revenues - pole & line attachments	-	-	-	-
9	Tower lease revenues	-	-	-	-
10	Other electric rents	-	-	-	-
11	Return & depr - Catawba general plant	-	-	-	-
12	Other misc revenues - CIAC & comp for svc	-	-	-	-
13	Other misc revenues - timber sales	-	-	-	-
14	Profit or loss on sale of M&S	-	-	-	-
15	Deferred DSM costs - NC	-	-	-	-
16	Other revenue affiliate	-	-	-	-
17	Revenues from transm of electricity to others	-	-	-	-
18	Other electric and transmission revenues	-	-	-	-
19	Electric operating revenues	-	-	-	(49,305)
20	Fuel used in electric generation	-	-	-	(70,917)
21	Account 555 - Purchased Power	-	-	-	-
22	NRC license fees in Acct 524	-	-	-	-
23	NRC inspection fees in Acct 524	-	-	-	-
24	Labor expense	-	-	-	(26,623)
25	Benefits expense	-	-	-	-
26	Uncollectibles expense	-	-	-	-
27	Regulatory commission expense	-	-	-	-
28	Property insurance	-	-	-	-
29	Injuries and damages for corp	-	-	-	-
30	Other O&M expense	-	-	-	(12,855)
31	Remove non-fuel rider costs and update fuel	-	-	-	-
32	Include Lee CC addition	-	-	-	(6,031)
33	Adjust for inflation and amortize rate case costs	-	396	-	396
34	Adjust for ongoing environmental costs	-	-	-	(200,561)
35	Adjust for customer connect project	-	-	-	(10,694)
36	Adjust veg mgmt, storm, aviation & outside svcs	-	-	-	(16,599)
37	Adjust NC regulatory fee	-	-	-	(108)
38	Other adjustments to reg fees and uncoll.	-	-	-	93
39	Total O&M expenses	-	396	-	(343,899)
40	Depreciation expense	(19,432)	-	-	(117,702)
41	REPS rider NC amortization expense	-	-	-	-
42	Annual NOx proceeds	-	-	-	-
43	Other amortization expense	-	-	-	-
44	Remove non-fuel rider costs	-	-	-	-
45	Depreciation and amortization expense	(19,432)	-	-	(117,702)
46	Other taxes - NC property tax	-	-	-	(146)
47	Other taxes - NC franchise & deferred prop. tax	-	-	-	-
48	Other taxes - NC state unemployment tax	-	-	-	-
49	Other taxes - NC industrial comm - electric	-	-	-	-
50	Other taxes - SC property tax	-	-	-	-
51	Other taxes - SC property tax - license fee	-	-	-	-
52	Other taxes - NC franchise tax	-	-	-	-
53	Other taxes - SC state unemployment tax	-	-	-	-
54	Other taxes - federal payroll taxes	-	-	-	-
55	Other taxes - federal unemployment tax	-	-	-	-
56	Other taxes - federal highway use tax	-	-	-	-
57	Other taxes - highway use tax & other state tax	-	-	-	-
58	Adjust payroll taxes	-	-	-	(59)
59	Total taxes other than income	-	-	-	(205)
60	Interest on customer deposits	-	-	-	-
61	Current state and federal income tax	-	-	-	-
62	Deferred income taxes	-	-	-	-
63	Adjust income taxes	4,598	(94)	2,150	20,169
64	Total income taxes	4,598	(94)	2,150	20,169
65	Amortization of ITC	-	-	-	-
66	Total electric operating expenses	(14,834)	302	2,150	(441,637)
67	Interest expense	-	-	(9,086)	(9,086)
68	Income available for common equity	14,834	(302)	6,936	401,418
69	Net operating income for return	14,834	(302)	(2,150)	392,332
70	Total requirement	\$0	\$0	\$0	(\$49,305)

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Jan 23 2018

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF WORKING CAPITAL
FROM LEAD / LAG STUDY AFTER RATE
DECREASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(e)
Page 1 of 2

Line No.	Item	Under	(Lead)	Iteration 1			13/
		Present Rates After Adjustments 1/	Lag Days 4/	Increase	With Increase 11/	CWC Change	
		(a)	(b)	(c)	(d)	(e)	
1	Electric operating revenues:						
2	Rate revenues	\$4,525,004	38.42	(\$286,366) 5/	\$4,238,638	(\$30,142)	
3	Sales for resale revenues	28,216	34.61	-	28,216	-	
4	Forfeited discounts	15,254	68.84	-	15,254	-	
5	Miscellaneous service revenues	10,374	117.77	(1,668) 6/	8,706	(538)	
6	Rent revenues - extra facilities - depreciation	6,155	-	-	6,155	-	
7	Rent revenues - extra facilities - other	19,019	38.42	-	19,019	-	
8	Rent revenues - pole line attachments	25,802	132.59	-	25,802	-	
9	Tower lease revenues	7,415	(153.00)	-	7,415	-	
10	Other electric rents	1,852	40.21	-	1,852	-	
11	Return & depr - Catawba general plant	8,218	(15.72)	-	8,218	-	
12	Other misc revenues - CIAC & comp for svc	14,253	(15.21)	-	14,253	-	
13	Other misc revenues - timber sales	13	38.42	-	13	-	
14	Profit or loss on sale of M&S	523	45.21	-	523	-	
15	Deferred DSM costs - NC	(59)	-	-	(59)	-	
16	Other revenue affiliate	9,132	40.46	-	9,132	-	
17	Revenues from transm of electricity to others	4,703	35.50	-	4,703	-	
18	Other electric and transmission revenues	2,672	38.42	-	2,672	-	
19	Electric operating revenues	<u>4,678,546</u>		<u>(288,034) 7/</u>	<u>4,390,512</u>	<u>(30,680)</u>	
20	Fuel used in electric generation	1,112,142	(23.13)	-	1,112,142	-	
21	Account 555 - Purchased Power	16,390	(36.23)	-	16,390	-	
22	NRC license fees in Acct 524	22,444	9.91	-	22,444	-	
23	NRC inspection fees in Acct 524	4,944	(101.54)	-	4,944	-	
24	Labor expense	486,843	(40.87)	-	486,843	-	
25	Benefits expense	91,464	(14.51)	-	91,464	-	
26	Uncollectibles expense	9,586	-	-	9,586	-	
27	Regulatory commission expense	8,146	(91.19)	-	8,146	-	
28	Property insurance	20,667	142.50	-	20,667	-	
29	Injuries and damages for corp	5,598	128.36	-	5,598	-	
30	Other O&M expense	673,074	(26.56)	-	673,074	-	
31	Remove non-fuel rider costs and update fuel	(131,780)	(26.77)	-	(131,780)	-	
32	Include Lee CC addition	-	(26.77)	-	-	-	
33	Adjust for inflation and amortize rate case costs	17,628	(26.77)	-	17,628	-	
34	Adjust for ongoing environmental costs	-	(40.87)	-	-	-	
35	Adjust for customer connect project	-	(27.84)	-	-	-	
36	Adjust veg mgmt, storm, aviation & outside svcs	(20,667)	(27.84)	-	(20,667)	-	
37	Adjust NC regulatory fee	741	(26.77)	-	741	-	
38	Other adjustments to reg fees and uncoll.	(748)	(41.89)	(953) 8/	(1,701)	109	
39	Total O&M expenses	<u>2,316,472</u>		<u>(953)</u>	<u>2,315,519</u>	<u>109</u>	
40	Depreciation expense	691,750	-	-	691,750	-	
41	REPS rider NC amortization expense	24,580	(38.42)	-	24,580	-	
42	Annual NOx proceeds	(84)	(3.34)	-	(84)	-	
43	Other amortization expense	101,002	-	-	101,002	-	
44	Remove non-fuel rider costs	(12,381)	(76.28)	-	(12,381)	-	
45	Depreciation and amortization expense	<u>804,867</u>		<u>-</u>	<u>804,867</u>	<u>-</u>	
46	Other taxes - NC property tax	68,279	(187.00)	-	68,279	-	
47	Other taxes - NC franchise & deferred prop. tax	902	(14.42)	-	902	-	
48	Other taxes - NC state unemployment tax	831	(86.73)	-	831	-	
49	Other taxes - NC industrial comm - electric	172	(21.08)	-	172	-	
50	Other taxes - SC property tax	72,323	(197.00)	-	72,323	-	
51	Other taxes - SC property tax - license fee	2,391	108.00	-	2,391	-	
52	Other taxes - NC franchise tax	19,924	-	-	19,924	-	
53	Other taxes - SC state unemployment tax	253	(114.43)	-	253	-	
54	Other taxes - federal payroll taxes	31,877	(42.35)	-	31,877	-	
55	Other taxes - federal unemployment tax	291	(91.46)	-	291	-	
56	Other taxes - federal highway use tax	26	145.99	-	26	-	
57	Other taxes - highway use tax & other state tax	(107)	(38.42)	-	(107)	-	
58	Adjust payroll taxes	777	(140.25)	-	777	-	
59	Current state and federal income tax	<u>197,939</u>		<u>-</u>	<u>197,939</u>	<u>-</u>	
60	Interest on customer deposits	<u>7,558</u>	(210.50)	<u>-</u>	<u>7,558</u>	<u>-</u>	
61	Current state and federal income tax	99,340	(36.03)	-	99,340	-	
62	Deferred income taxes	328,575	-	-	328,575	-	
63	Adjust income taxes	(188,141)	(36.50)	(67,929) 9/	(256,070)	6,793	
64	Total income taxes	<u>239,774</u>		<u>(67,929)</u>	<u>171,845</u>	<u>6,793</u>	
65	Amortization of ITC	<u>(3,529)</u>	-	<u>-</u>	<u>(3,529)</u>	<u>-</u>	
66	Total electric operating expenses	<u>3,563,081</u>		<u>(68,882)</u>	<u>3,494,199</u>	<u>6,902</u>	
67	Interest expense	299,212	(89.75)	-	299,212	-	
68	Income available for common equity	816,253	-	(219,152) 10/	597,101 12/	-	
69	Net operating income for return	<u>1,115,465</u>		<u>(219,152)</u>	<u>896,313</u>	<u>-</u>	
70	Total requirement	<u>\$4,678,546</u>		<u>(\$288,034)</u>	<u>\$4,390,512</u>	<u>\$6,902</u>	
71	Cumulative change in working capital					(\$23,778)	
72	Rate base under present rates					13,123,100	
73	Rate base after rate increase	<u>\$13,123,100 2/</u>				<u>\$13,099,322</u>	
74	Overall rate of return	8.50%				6.84%	
75	Target rate of return	6.84% 3/				6.84% 3/	

1/ Boswell Exhibit 1, Schedule 2-1(d), Column (e).

2/ Boswell Exhibit 1, Schedule 2, Line 12, Column (c).

3/ Boswell Exhibit 1, Schedule 4, Line 3, Column (h).

4/ Boswell Exhibit 1, Schedule 2-1(d), Column (f).

5/ Line 19 minus (Sum of Line 3 thru Line 18).

6/ Boswell Exhibit 1, Schedule 3, Line 3, Column (d).

7/ Line 68 divided by retention factor of 0.7608544.

8/ Line 19 times (uncollectibles rate of 0.19124% plus regulatory fee rate, net of uncollectibles, of 0.13973%).

9/ (Line 68 divided by (1 minus 23.6619%)) minus Line 68.

10/ Column (d) minus Column (a).

11/ Column (a) plus Column (c), unless footnoted otherwise.

12/ Line 73, Column (a) times 50.000% times 9.100%.

13/ Column (c) divided by 365 days times Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF WORKING CAPITAL
FROM LEAD / LAG STUDY AFTER RATE
INCREASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-1(e)
Page 2 of 2

Line No.	Item	Iteration 2			Iteration 3		
		Increase	With Increase 15/	CWC Change 19/	Increase	With Increase 21/	CWC Change 24/
		(f)	(g)	(h)	(i)	(j)	(k)
1	Electric operating revenues:						
2	Rate revenues	(\$1,313) 5/	\$4,237,325	(\$138)	(\$11) 5/	\$4,237,314	(\$1)
3	Sales for resale revenues	-	28,216	-	-	28,216	-
4	Forfeited discounts	-	15,254	-	-	15,254	-
5	Miscellaneous service revenues	-	8,706	-	-	8,706	-
6	Rent revenues - extra facilities - depreciation	-	6,155	-	-	6,155	-
7	Rent revenues - extra facilities - other	-	19,019	-	-	19,019	-
8	Rent revenues - pole & line attachments	-	25,802	-	-	25,802	-
9	Tower lease revenues	-	7,415	-	-	7,415	-
10	Other electric rents	-	1,852	-	-	1,852	-
11	Return & depr - Catawba general plant	-	8,218	-	-	8,218	-
12	Other misc revenues - CIAC & comp for svc	-	14,253	-	-	14,253	-
13	Other misc revenues - timber sales	-	13	-	-	13	-
14	Profit or loss on sale of M&S	-	523	-	-	523	-
15	Deferred DSM costs - NC	-	(59)	-	-	(59)	-
16	Other revenue affiliate	-	9,132	-	-	9,132	-
17	Revenues from transm of electricity to others	-	4,703	-	-	4,703	-
18	Other electric and transmission revenues	-	2,672	-	-	2,672	-
19	Electric operating revenues	(1,313) 14/	4,389,199 16/	(138)	(11) 20/	4,389,188 16/	(1)
20	Fuel used in electric generation	-	1,112,142	-	-	1,112,142	-
21	Account 555 - Purchased Power	-	16,390	-	-	16,390	-
22	NRC license fees in Acct 524	-	22,444	-	-	22,444	-
23	NRC inspection fees in Acct 524	-	4,944	-	-	4,944	-
24	Labor expense	-	486,843	-	-	486,843	-
25	Benefits expense	-	91,464	-	-	91,464	-
26	Uncollectibles expense	-	9,586	-	-	9,586	-
27	Regulatory commission expense	-	8,146	-	-	8,146	-
28	Property insurance	-	20,667	-	-	20,667	-
29	Injuries and damages for corp	-	5,598	-	-	5,598	-
30	Other O&M expense	-	673,074	-	-	673,074	-
31	Remove non-fuel rider costs and update fuel	-	(131,780)	-	-	(131,780)	-
32	Include Lee CC addition	-	-	-	-	-	-
33	Adjust for inflation and amortize rate case costs	-	17,628	-	-	17,628	-
34	Adjust for ongoing environmental costs	-	-	-	-	-	-
35	Adjust for customer connect project	-	-	-	-	-	-
36	Adjust veg mgmt, storm, aviation & outside svcs	-	(20,667)	-	-	(20,667)	-
37	Adjust NC regulatory fee	-	741	-	-	741	-
38	Other adjustments to reg fees and uncoll.	(4) 8/	(1,705)	-	(0) 8/	(1,705)	-
39	Total O&M expenses	(4)	2,315,515	-	(0)	2,315,515	-
40	Depreciation expense	-	691,750	-	-	691,750	-
41	REPS rider NC amortization expense	-	24,580	-	-	24,580	-
42	Annual NOx proceeds	-	(84)	-	-	(84)	-
43	Other amortization expense	-	101,002	-	-	101,002	-
44	Remove non-fuel rider costs	-	(12,381)	-	-	(12,381)	-
45	Depreciation and amortization expense	-	804,867	-	-	804,867	-
46	Other taxes - NC property tax	-	68,279	-	-	68,279	-
47	Other taxes - NC franchise & deferred prop. tax	-	902	-	-	902	-
48	Other taxes - NC state unemployment tax	-	831	-	-	831	-
49	Other taxes - NC industrial comm - electric	-	172	-	-	172	-
50	Other taxes - SC property tax	-	72,323	-	-	72,323	-
51	Other taxes - SC property tax - license fee	-	2,391	-	-	2,391	-
52	Other taxes - NC franchise tax	-	19,924	-	-	19,924	-
53	Other taxes - SC state unemployment tax	-	253	-	-	253	-
54	Other taxes - federal payroll taxes	-	31,877	-	-	31,877	-
55	Other taxes - federal unemployment tax	-	291	-	-	291	-
56	Other taxes - federal highway use tax	-	26	-	-	26	-
57	Other taxes - highway use tax & other state tax	-	(107)	-	-	(107)	-
58	Adjust payroll taxes	-	777	-	-	777	-
59	Current state and federal income tax	-	197,939	-	-	197,939	-
60	Interest on customer deposits	-	7,558	-	-	7,558	-
61	Current state and federal income tax	-	99,340	-	-	99,340	-
62	Deferred income taxes	-	328,575	-	-	328,575	-
63	Adjust income taxes	(335) 9/	(256,405)	34	(2) 9/	(256,407)	-
64	Total income taxes	(335)	171,510	34	(2)	171,508	-
65	Amortization of ITC	-	(3,529)	-	-	(3,529)	-
66	Total electric operating expenses	(339)	3,493,860	34	(2)	3,493,858	-
67	Interest expense	108 14/	299,320 17/	(27)	(3) 20/	299,317 22/	1
68	Income available for common equity	(1,082) 14/	596,019 18/	-	(6) 20/	596,013 23/	-
69	Net operating income for return	(974)	895,339	(27)	(9)	895,330	1
70	Total requirement	(\$1,313)	\$4,389,199	\$7	(\$11)	\$4,389,188	\$1
71	Cumulative change in working capital			(\$23,909)			(\$23,909)
72	Rate base under present rates			13,123,100			13,123,100
73	Rate base after rate increase			\$13,099,191			\$13,099,191
74	Overall rate of return			6.84%			6.84%
75	Target rate of return			6.84% 3/			6.84% 3/

14/ Column (g) minus Column (d).

15/ Column (d) plus Column (f), unless footnoted otherwise.

16/ Line 70.

17/ Line 73, Column (e) times 50.000% times 4.570%.

18/ Line 73, Column (e) times 50.000% times 9.100%.

19/ Column (f) divided by 365 days times Column (b).

20/ Column (j) minus Column (g).

21/ Column (g) plus Column (i), unless footnoted otherwise.

22/ Line 73, Column (h) times 50.000% times 4.570%.

23/ Line 73, Column (h) times 50.000% times 9.100%.

24/ Column (i) divided by 365 days times Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF REGULATORY ASSETS & LIABILITIES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 2-2

Line No.	Item	NC Retail Adjusted Per Company ^{1/}	Public Staff Adjustments ^{2/}	NC Retail Adjusted Per Public Staff ^{3/}
		(a)	(b)	(c)
1	Required Bank Balance	\$205	\$0	\$205
2	Pension Funding:			
3	0182318 - Other Reg Assets - Gen Acct	324,052	-	324,052
4	0182801 - Pension Post Retire P Acctg - FAS87 NQ	3,496	-	3,496
5	0254689 - Reg Liability - NQ	(28,396)	-	(28,396)
6	Injuries and Damages:			
7	0186060 - I and D Insurance Receivable	393,283	-	393,283
8	0186090 - I&D O/S Svcs Receivable	58	-	58
9	0254120 - I and D Regulatory Liability	(21,299)	-	(21,299)
10	Regulatory Assets & Liabilities - Tax:	579,059	-	579,059
11	Other:			
12	0182323 - Rate Case Cost NC CUR	457	-	457
13	0182329 - Reg Asset Section 124 Asset	1,291	-	1,291
14	0182391 - NPL Extraordinary Repairs	393	-	393
15	0182410 - Interest Rate Swap Reg Asset	53,093	-	53,093
16	0182433 - Rate Case Cost NC LT	1,435	-	1,435
17	0182438 - Billing System Deferral - Ltg	656	-	656
18	0182483 - Rotable Fleet Spare Reg Asset	1,921	-	1,921
19	0182484 - NC Regulatory Fee	1,111	-	1,111
20	0182495 - SC Non-AMI Meter NBV	314	-	314
21	0183000 - Prelim Survey and Investigation	7,418	-	7,418
22	0186181 - COR Settlement - NC	55,954	-	55,954
23	0186195 - Deferred PEC Rate Case Expense - NCR	8	-	8
24	0186316 - Coal Ash Spend - NC Retail	431,491	(431,491)	-
25	0186500 - Other Long Term Receivable	13,077	-	13,077
26	0186910 - Deferred Benefit Plan - As	44	-	44
27	0186998 - Fukushima Pooled Inventory Opt	3,038	-	3,038
28	0253036 - JEA Option Agreement	(5,026)	-	(5,026)
29	0253820 - Schm Deferred Benefit Plan - NPL	(44)	-	(44)
30	0253890 - Schm Tax and S/L For Surplus Mat'ls	(85)	-	(85)
31	0253910 - Pole Attach - Advance Billing	(78)	-	(78)
32	0253920 - Other Deferred Credits	(1,114)	-	(1,114)
33	0253990 - Deferred Prepaid Ef - Lighting - NCR	(18,412)	-	(18,412)
34	0254021 - Nuclear Fuel Last Core Reserve	(48,492)	-	(48,492)
35	0254022 - M and S Inventory Reserve PEC RC	(35,704)	-	(35,704)
36	0254150 - Reg Liab - NC Tax Rate Change	(204,821)	204,821	-
37	0254690 - OPEB Regulatory Liability	(3,136)	-	(3,136)
38	0820000 - Fabricated Equipment	582	-	582
39	Lee Combined Cycle Deferral	14,424	(14,424)	-
40	Lee Nuclear Amortization	326,764	(326,764)	-
41	Nuclear Decommissioning Expense	-	19,432	19,432
42	Rounding	101	-	101
43	Total Regulatory Assets and Liabilities	<u>\$1,847,118</u>	<u>(\$548,426)</u>	<u>\$1,298,692</u>

1/ Based on review of Company Item 10 workpapers, and Company response to DR 31.

2/ Based on adjustments recommended by Public Staff.

3/ Column (a) plus Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
NET OPERATING INCOME FOR RETURN
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3

Line No.	Item	Under Present Rates			After Public Staff Recommended Decrease	
		NC Retail Adjusted Per Company ^{1/}	Public Staff Adjustments ^{2/}	After Public Staff Adjustments ^{3/}	Rate Decrease ^{4/}	After Rate Decrease ^{9/}
		(a)	(b)	(c)	(d)	(e)
1	Electric operating revenues:					
2	Sales of electricity	\$4,579,161	(\$49,305)	\$4,529,856	(\$287,599) ^{4/}	\$4,242,257
3	Other revenues	148,691	-	148,691	(1,668) ^{5/}	147,023
4	Electric operating revenues (L2 + L3)	<u>4,727,852</u>	<u>(49,305)</u>	<u>4,678,547</u>	<u>(289,267) ^{6/}</u>	<u>4,389,280</u>
5	Electric operating expenses:					
6	Operations and maintenance:					
7	Fuel used in electric generation	1,183,059	(70,917)	1,112,142	-	1,112,142
8	Purchased power	16,390	-	16,390	-	16,390
9	Other operations and maintenance expenses	1,460,920	(272,982)	1,187,938	(957) ^{7/}	1,186,981
10	Depreciation and amortization	922,570	(117,702)	804,868	-	804,868
11	General taxes	198,144	(205)	197,939	-	197,939
12	Interest on customer deposits	7,558	-	7,558	-	7,558
13	Net income taxes	219,803	19,889	239,692	(68,090) ^{8/}	171,602
14	Amortization of investment tax credit	(3,529)	-	(3,529)	-	(3,529)
15	Total electric operating expenses (Sum of L7 thru L14)	<u>4,004,915</u>	<u>(441,917)</u>	<u>3,562,998</u>	<u>(69,047)</u>	<u>3,493,951</u>
16	Net operating income for return (L4 minus L15)	<u>\$722,937</u>	<u>\$392,612</u>	<u>\$1,115,549</u>	<u>(\$220,220)</u>	<u>\$895,329</u>

1/ Based on McManeus Exhibit 1 after November 2017 update provided by Company to Public Staff on December 18, 2017.

2/ Boswell Exhibit 1, Schedule 3-1, Column (bb).

3/ Column (a) plus Column (b).

4/ Line 4 minus Line 3.

5/ McManeus Exhibit 2, Line 3.

6/ Boswell Exhibit 1, Schedule 5, Line 5, Column (c).

7/ Line 4 times (1 minus retention factor after uncollectibles and regulatory fee of 0.9966903 from Boswell Exhibit 1, Schedule 1-2, Line 10.)

8/ Line 4 minus Line 9 minus change in interest expense from Boswell Exhibit 1, Schedule 5, Line 3, Column (a), times composite income tax rate of 23.6619%.

9/ Column (c) plus Column (d).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF NET OPERATING
INCOME ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1
Page 1 of 4

Line No.	Item	Adjust Income Tax Expense for Tax Cuts & Jobs Act (a)	Adjust Test Year Revenues & Related Expenses (b)	Update Plant to 11/30/2017 (c)	Update Customer Growth & Usage to 11/30/2017 (d)	Adjust Distribution Vegetation Management (e)	Adjust Allocations from DEBS to DEC (f)	Remove EDIT Refund for Treatment as a Rider (g)
1	Electric operating revenues:							
2	Sales of electricity	\$0	\$11,589 ^{2/}	\$0	\$16,315 ^{5/}	\$0	\$0	\$0
3	Other revenues	-	-	-	-	-	-	-
4	Electric operating revenues (L2 + L3)	-	11,589	-	16,315	-	-	-
5	Electric operating expenses:							
6	Operations and maintenance:							
7	Fuel used in electric generation	-	2,490 ^{2/}	-	3,694 ^{5/}	-	-	-
8	Purchased power	-	-	-	-	-	-	-
9	Other operations and maintenance expenses	-	(388) ^{2/}	-	1,094 ^{5/}	(12,821) ^{6/}	(4,110) ^{7/}	-
10	Depreciation and amortization	-	-	(9,074) ^{4/}	-	-	-	51,205 ^{8/}
11	General taxes	-	-	(146) ^{4/}	-	-	-	-
12	Interest on customer deposits	-	-	-	-	-	-	-
13	Net income taxes	(79,586) ^{1/}	2,245 ^{3/}	2,182 ^{3/}	2,728 ^{3/}	3,034 ^{3/}	973 ^{3/}	(12,116) ^{3/}
14	Amortization of investment tax credit	-	-	-	-	-	-	-
15	Total electric operating expenses (Sum of L7 thru L14)	(79,586)	4,347	(7,038)	7,516	(9,787)	(3,137)	39,089
16	Net operating income for return (L4 minus L15)	79,586	7,242	7,038	8,799	9,787	3,137	(39,089)
17	Calculated revenue requirement impact ^{9/}	(\$104,601)	(\$9,518)	(\$9,250)	(\$11,565)	(\$12,863)	(\$4,123)	\$51,375

1/ Boswell Exhibit 1, Schedule 3-1(a), Line 14, Column (e).

2/ Boswell Exhibit 1, Schedule 3-1(b).

3/ Line 4 minus Sum of Lines 7 through 12 times composite income tax rate of 23.6619%.

4/ Boswell Exhibit 1, Schedule 3-1(c).

5/ Boswell Exhibit 1, Schedule 3-1(d).

6/ Boswell Exhibit 1, Schedule 3-1(e).

7/ Boswell Exhibit 1, Schedule 3-1(f), Line 5.

8/ Boswell Exhibit 1, Schedule 3-1(g), Line 1.

9/ Negative of Line 16 divided by expense retention factor of 0.7608544 from Boswell Exhibit 1, Schedule 1-2, Line 14.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF NET OPERATING
INCOME ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1
Page 2 of 4

Line No.	Item	Adjust Customer Connect Expenses (h)	Remove Duke Piedmont CTA (i)	Adjust Depreciation Rates (j)	Adjust Incentives (k)	Remove Ongoing Environmental Costs (l)	Adjust Executive Compensation (m)	Adjust Aviation Expenses (n)
1	Electric operating revenues:							
2	Sales of electricity	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Other revenues	-	-	-	-	-	-	-
4	Electric operating revenues (L2 + L3)	-	-	-	-	-	-	-
5	Electric operating expenses:							
6	Operations and maintenance:							
7	Fuel used in electric generation	-	-	-	-	-	-	-
8	Purchased power	-	-	-	-	-	-	-
9	Other operations and maintenance expenses	(10,694) 10/	(6,450) 11/	-	(25,142) 13/	(200,561) 14/	(343) 15/	(1,661) 16/
10	Depreciation and amortization	-	-	(44,013) 12/	-	-	-	-
11	General taxes	-	-	-	-	-	-	(24) 16/
12	Interest on customer deposits	-	-	-	-	-	-	-
13	Net income taxes	2,530 3/	1,526 3/	10,414 3/	5,949 3/	47,457 3/	81 3/	399 3/
14	Amortization of investment tax credit	-	-	-	-	-	-	-
15	Total electric operating expenses (Sum of L7 thru L14)	(8,164)	(4,924)	(33,599)	(19,193)	(153,104)	(262)	(1,286)
16	Net operating income for return (L4 minus L15)	8,164	4,924	33,599	19,193	153,104	262	1,286
17	Calculated revenue requirement impact	9/ (\$10,730)	(\$6,472)	(\$44,160)	(\$25,226)	(\$201,226)	(\$344)	(\$1,690)

10/ Boswell Exhibit 1, Schedule 3-1(h).

11/ Boswell Exhibit 1, Schedule 3-1(i).

12/ Boswell Exhibit 1, Schedule 3-1(j), Line 8, Column (c).

13/ Boswell Exhibit 1, Schedule 3-1(k).

14/ Based on the recommendation of Public Staff witness Maness.

15/ Boswell Exhibit 1, Schedule 3-1(l), Line 14.

16/ Boswell Exhibit 1, Schedule 3-1(m).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF NET OPERATING
INCOME ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1
Page 3 of 4

Line No.	Item	Adjust Deferred Environmental Costs (o)	Adjust Outside Services (p)	Adjust Lee CC Costs (q)	Adjust Lee CC Deferral (r)	Adjust Sponsorships & Donations (s)	Adjust Lobbying Expense (t)	Adjust Board of Directors Expense (u)
1	Electric operating revenues:							
2	Sales of electricity	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Other revenues	-	-	-	-	-	-	-
4	Electric operating revenues (L2 + L3)	-	-	-	-	-	-	-
5	Electric operating expenses:							
6	Operations and maintenance:							
7	Fuel used in electric generation	-	-	-	-	-	-	-
8	Purchased power	-	-	-	-	-	-	-
9	Other operations and maintenance expenses	-	(2,117) ^{17/}	(6,031) ^{18/}	-	(486) ^{20/}	(547) ^{21/}	(2,422) ^{22/}
10	Depreciation and amortization	(90,941) ^{14/}	-	(306) ^{18/}	(4,355) ^{19/}	-	-	-
11	General taxes	-	-	-	-	-	-	-
12	Interest on customer deposits	-	-	-	-	-	-	-
13	Net income taxes	21,518 ^{3/}	501 ^{3/}	1,499 ^{3/}	1,030 ^{3/}	115 ^{3/}	129 ^{3/}	573 ^{3/}
14	Amortization of investment tax credit	-	-	-	-	-	-	-
15	Total electric operating expenses (Sum of L7 thru L14)	(69,423)	(1,616)	(4,838)	(3,325)	(371)	(418)	(1,849)
16	Net operating income for return (L4 minus L15)	69,423	1,616	4,838	3,325	371	418	1,849
17	Calculated revenue requirement impact ^{9/}	(91,243)	(2,124)	(6,359)	(4,370)	(488)	(549)	(2,430)

17/ Boswell Exhibit 1, Schedule 3-1(n), Line 6.

18/ Boswell Exhibit 1, Schedule 3-1(o).

19/ Boswell Exhibit 1, Schedule 3-1(p), Line 11.

20/ Boswell Exhibit 1, Schedule 3-1(q), Line 6.

21/ Boswell Exhibit 1, Schedule 3-1(r), Line 6.

22/ Boswell Exhibit 1, Schedule 3-1(s), Line 12.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
SUMMARY OF PUBLIC STAFF NET OPERATING
INCOME ADJUSTMENTS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1
Page 4 of 4

Line No.	Item	Adjust Fuel & Fuel Related Revenues & Expenses (v)	Adjust Lee Nuclear Cost (w)	Adjust Salaries & Wages (x)	Adjust Nuclear Decommissioning Expense (y)	Adjustment to Inflation Adjustment (z)	Interest Synchronization Adjustment (aa)	Total NOI Adjustments (bb) ^{29/}
1	Electric operating revenues:							
2	Sales of electricity	(\$77,209) ^{23/}	\$0	\$0	\$0	\$0	\$0	(\$49,305)
3	Other revenues	-	-	-	-	-	-	-
4	Electric operating revenues (L2 + L3)	<u>(77,209)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(49,305)</u>
5	Electric operating expenses:							
6	Operations and maintenance:							
7	Fuel used in electric generation	(77,101) ^{23/}	-	-	-	-	-	(70,917)
8	Purchased power	-	-	-	-	-	-	-
9	Other operations and maintenance expenses	(108) ^{23/}	-	(591) ^{25/}	-	396 ^{27/}	-	(272,982)
10	Depreciation and amortization	-	(786) ^{24/}	-	(19,432) ^{26/}	-	-	(117,702)
11	General taxes	-	-	(35) ^{25/}	-	-	-	(205)
12	Interest on customer deposits	-	-	-	-	-	-	-
13	Net income taxes	- ^{3/}	186 ^{3/}	148 ^{3/}	4,598 ^{3/}	(94) ^{3/}	1,870 ^{28/}	19,889
14	Amortization of investment tax credit	-	-	-	-	-	-	-
15	Total electric operating expenses (Sum of L7 thru L14)	<u>(77,209)</u>	<u>(600)</u>	<u>(478)</u>	<u>(14,834)</u>	<u>302</u>	<u>1,870</u>	<u>(441,917)</u>
16	Net operating income for return (L4 minus L15)	<u>0</u>	<u>600</u>	<u>478</u>	<u>14,834</u>	<u>(302)</u>	<u>(1,870)</u>	<u>392,612</u>
17	Calculated revenue requirement impact ^{9/}	<u>\$0</u>	<u>(\$789)</u>	<u>(\$628)</u>	<u>(\$19,497)</u>	<u>\$397</u>	<u>\$2,458</u>	<u>(\$516,015)</u>

23/ Boswell Exhibit 1, Schedule 3-1(t), Column (d).

24/ Boswell Exhibit 1, Schedule 3-1(u), Line 8.

25/ Boswell Exhibit 1, Schedule 3-1(v).

26/ Boswell Exhibit 1, Schedule 3-1(w), Line 3.

27/ Boswell Exhibit 1, Schedule 3-1(x), Line 12.

28/ Boswell Exhibit 1, Schedule 3-1(y), Line 8.

29/ Sum of Column (a) through Column (aa).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO INCOME TAX EXPENSE TO REFLECT TAX
CUTS AND JOBS ACT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(a)

Line No.	Item	NC Retail Tax Expense Per Company (a)	2017 Rate (b)	2018 Rate (c)	Taxes at New Rate (d)	Adjustment (e)
1	<u>Per books income taxes</u>					
2	Per books income tax expense					<u>(\$155,526) 11/</u>
3	<u>Federal impact of state income tax rate change</u>					
4	Federal tax impact related to state rate change - current	\$758 1/	35.00% 5/	21.00% 7/	\$455 9/	(303) 12/
5	Federal tax impact related to state rate change - deferred	<u>2,099 2/</u>	35.00% 5/	21.00% 7/	<u>1,259 9/</u>	<u>(840) 12/</u>
6	Federal tax impact of Company pro forma for state tax rate change (L4 + L5)	<u>2,857</u>			<u>1,714</u>	<u>(1,143)</u>
7	<u>Repeal of manufacturing tax deduction</u>					
8	Company pro forma adjustment to manufacturing tax deduction	<u>(5,202) 3/</u>			<u>- 10/</u>	<u>5,202 12/</u>
9	<u>Other Company pro forma adjustments to income taxes</u>					
10	Company pro forma adjustment to income taxes	(208,113) 4/				
11	Less: adjustment to manufacturing tax deduction	(5,202) 4/				
12	Less: adjustment to per books income taxes for state tax rate change	<u>(5,306) 4/</u>				
13	Income tax impact of other Company adjustments (L10 - L11 - L12)	<u>(197,605)</u>	37.1902% 6/	23.6619% 8/	<u>(125,724) 9/</u>	<u>71,881 12/</u>
14	Adjustment to income tax expense (L2 + L6 + L8 + L13)					<u><u>(\$79,586)</u></u>

- 1/ NCUC Form E-1, Item No. 10, NC-2901, Line 6, Column (g).
2/ Negative of NCUC Form E-1, Item No. 10, NC-2901, Line 13, Column (g) divided by (1 minus 35% federal tax rate) times 35% federal tax rate.
3/ McManeus Revised Supplemental Exhibit 1, Page 155, NC-3600(C), Line 14.
4/ Based on McManeus Exhibit 1, Page 3 after November 17 update provided by Company to Public Staff on December 18, 2017.
5/ NCUC Form E-1, Item No. 10, NC-2901, Line 6, Column (e).
6/ NCUC Form E-1, Item No. 10, NC-0104, Line 10.
7/ Statutory rate.
8/ Boswell Exhibit 1, Schedule 1-3, Line 8.
9/ Column (a) divided by Column (b) times Column (c).
10/ Based on repeal of manufacturing tax deduction in the Tax Cuts and Jobs Act.
11/ Based on Company response to Public Staff Data Request No. 123, Item 1.
12/ Column (d) minus Column (a).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO TEST YEAR REVENUES AND RELATED
EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)

Line No.	Item	Public Staff Amount (a)	Company Amount (b)	Public Staff Adjustment (c)	13/
	<u>Revenues</u>				
1	Adjust test year revenues for weather	(\$29,785) 1/	(\$36,919) 10/	\$7,134	
2	Adjust test year revenues for customer growth	15,386 2/	13,480 11/	1,906	
3	Adjust test year revenues for usage	2,549 3/	-	2,549	
4	Adjust revenues for test year (Sum of L1 thru L3)	<u>(\$11,850)</u>	<u>(\$23,439)</u>	<u>\$11,589</u>	
	<u>Fuel and Fuel Related Expense</u>				
5	Adjust fuel expense for change in kwh due to weather	(\$8,487) 1/	(\$9,878) 10/	\$1,391	
6	Adjust fuel expense for change in kwh due to customer growth	3,096 2/	2,558 11/	538	
7	Adjust fuel expense for change in kwh due to usage	561 3/	-	561	
8	Adjust fuel expense for change in kwh (Sum of L5 thru L7)	<u>(\$4,830)</u>	<u>(\$7,320)</u>	<u>\$2,490</u>	
	<u>Other O&M Expense</u>				
9	Public Staff adjustment to MWH sales for weather	(411,945) 1/			
10	Public Staff adjustment to MWH sales for customer growth	159,564 2/			
11	Public Staff adjustment to MWH sales for usage	29,330 3/			
12	Total change in MWH (Sum of L9 thru L11)	<u>(223,051)</u>			
13	Energy-related non-fuel variable O&M exp. per MWH in dollars	2.86657 4/			
14	Adjustment to energy-related non-fuel variable O&M expense	<u>(\$639) 5/</u>			
15	Company NC retail customer growth change in bills	109,916 6/			
16	Public Staff change in bills	- 6/			
17	Total change in bills (L15 + L16)	<u>109,916</u>			
18	Annual customer-related variable O&M expense per bill in dollars	1.93043 7/			
19	Adjustment to customer-related variable O&M expense	<u>\$212 8/</u>			
20	Adjust variable non-fuel O&M expense (L14 + L19)	(\$427)	\$0	(\$427)	
21	Adjust regulatory fees and uncollectibles	(39) 9/	(78) 12/	39	
22	Total adjustment to other O&M expenses (L20 + L21)	<u>(\$466)</u>	<u>(\$78)</u>	<u>(\$388)</u>	

1/ Boswell Exhibit 1, Schedule 3-1(b)(1), Line 4.

2/ Boswell Exhibit 1, Schedule 3-1(b)(2), Line 10.

3/ Boswell Exhibit 1, Schedule 3-1(b)(3), Line 2.

4/ Boswell Exhibit 1, Schedule 3-1(b)(4), Line 27.

5/ Line 12 times Line 13 divided by 1,000.

6/ Based on information provided by Public Staff witness Saillor.

7/ Boswell Exhibit 1, Schedule 3-1(b)(5), Line 20.

8/ Line 17 times Line 18 divided by 1,000.

9/ Line 4 times (uncollectibles rate of 0.19124% plus regulatory fee rate, net of uncollectibles, of 0.13973%).

10/ NCUC Form E-1, Item No. 10, NC-0300.

11/ NCUC Form E-1, Item No. 10, NC-0400.

12/ NCUC Form E-1, Item No. 10, NC-0300, Line 10 plus NCUC Form E-1, Item No. 10, NC-0400, Line 10.

13/ Column (a) minus Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF ADJUSTMENT TO
TEST YEAR REVENUES AND FUEL
RELATED EXPENSES FOR WEATHER
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)(1)

Line No.	Item	Revenues			Fuel & Fuel Related Expenses	
		Public Staff NC KWH Weather Adjustment ^{1/}	Cents per KWH ^{2/}	Public Staff Adjustment ^{3/}	Fuel Costs in Cents per KWH ^{4/}	Public Staff Adjustment ^{5/}
		(a)	(b)	(c)	(d)	(e)
1	Total NC Residential	(59,998,332)	9.8088	(\$5,885)	1.9131	(\$1,148)
2	Total NC General Service	(243,575,214)	7.1618	(17,444)	2.0570	(5,010)
3	Total NC Industrial	<u>(108,371,252)</u>	5.9574	<u>(6,456)</u>	2.1491	<u>(2,329)</u>
4	Total NC Retail (L1 + L2 + L3)	<u><u>(411,944,798)</u></u>		<u><u>(\$29,785)</u></u>		<u><u>(\$8,487)</u></u>

1/ Amounts per Public Staff witness Hinton.

2/ NCUC Form E-1, Item No. 10, NC-0301, Line 11.

3/ (Column (a) times Column (b)) divided by 100,000.

4/ NCUC Form E-1, Item No. 10, NC-0301, Line 15.

5/ (Column (a) times Column (d)) divided by 100,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF CUSTOMER
GROWTH ADJUSTMENT TO TEST
YEAR REVENUES AND FUEL
RELATED EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)(2)

Line No.	Item	Revenues			Fuel & Fuel Related Expenses		
		Public Staff NC KWH Growth Adjustment ^{1/}	Cents per KWH ^{2/}	Public Staff Adjustment ^{3/}	Fuel Costs in Cents per KWH ^{4/}	Public Staff Adjustment ^{5/}	
		(a)	(b)	(c)	(d)	(e)	
1	Total NC Residential	<u>132,208,056</u>	9.81	<u>\$12,970</u>	1.9131	<u>\$2,529</u>	
2	General Service Small and Large	15,215,008	7.16	1,089	2.0570	313	
3	T2 Flood Lighting / Outdoor Lighting	1,330,596	18.35	244	2.0570	27	
4	Miscellaneous	704,237	17.52	123	2.0570	14	
5	Total NC General (L2 + L3 + L4)	<u>17,249,841</u>		<u>1,456</u>		<u>354</u>	
6	T	4,002,564	14.76	591	2.0570	82	
7	TS	58,750	14.97 ^{1/}	9	2.0570	1	
8	Total NC Street Lighting (L6 + L7)	<u>4,061,314</u>		<u>600</u>		<u>83</u>	
9	Total NC Industrial	<u>6,044,923</u>	5.96	<u>360</u>	2.1491	<u>130</u>	
10	Total NC Retail (L1 + L5 + L8 + L9)	<u>159,564,134</u>		<u>\$15,386</u>		<u>\$3,096</u>	

- ^{1/} Amounts per Public Staff witness Sailor.
^{2/} NCUC Form E-1, Item No. 10, NC-0402, Column (b).
^{3/} (Column (a) times Column (b)) divided by 100,000.
^{4/} NCUC Form E-1, Item No. 10, NC-0401, Line 5.
^{5/} (Column (a) times Column (d)) divided by 100,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF USAGE ADJUSTMENT TO
TEST YEAR REVENUES AND FUEL RELATED
EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)(3)

Line No.	Item	Revenues			Fuel & Fuel Related Expenses	
		Public Staff NC KWH Usage Adjustment	Cents per KWH	Public Staff Adjustment	Fuel Costs in Cents per KWH	Public Staff Adjustment
		^{1/} (a)	^{1/} (b)	^{2/} (c)	^{3/} (d)	^{4/} (e)
1	Total NC Residential	<u>29,329,823</u>	8.69	<u>\$2,549</u>	1.9131	<u>\$561</u>
2	Total NC Retail	<u><u>29,329,823</u></u>		<u><u>\$2,549</u></u>		<u><u>\$561</u></u>

- 1/ Amounts per Public Staff witness Saillor.
 2/ (Column (a) times Column (b)) divided by 100,000.
 3/ NCUC Form E-1, Item No. 10, NC-0201, Line 9.
 4/ (Column (a) times Column (d)) divided by 100,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF ENERGY-RELATED EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)(4)

Line No.	Item	NC Retail Amount (a)	Sub-Calculations (b)
1	2016 per books energy-related production O&M expense	\$1,387,955 1/	
2	Fuel expense included in Line 1	1,138,527 2/	
3	Salaries and wages included in Line 1 - system amount		5,692 3/
4	NC retail allocation factor		66.6244% 4/
5	NC retail salaries and wages included in Line 1 (L3 x L4)	3,792	<u>\$3,792</u>
6	Non-fuel rider energy-related costs removed from base rates	<u>90,057 5/</u>	
7	Total non-fuel, non-payroll energy related production O&M expense (L1 - L2 - L5 - L6)	<u>155,579</u>	
8	Total O&M expense, excluding A&G expense	<u>2,266,208 6/</u>	
9	Total non-fuel O&M expense, excluding A&G expense (L8 - L2)	<u>1,127,681</u>	
10	Ratio (L7 / L9)	<u>0.137964</u>	
11	Total per books A&G expense	307,917 7/	
12	Salaries and wages in Line 10 - system amount		186,379 8/
13	Per books employee pensions and benefits - system amount		<u>141,457 9/</u>
14	Subtotal (L12 + L13)		327,836
15	NC retail allocation factor		68.0211% 10/
16	NC retail per books salaries, wages, pensions, and employee benefits (L14 x L15)		<u>222,998</u>
17	Aviation expense removed elsewhere		3,382 11/
18	NC regulatory fee adjusted elsewhere		8,440 12/
19	Outside services removed elsewhere		2,275 13/
20	Sponsorships and donations removed elsewhere		486 14/
21	Board of Directors expense removed elsewhere		<u>2,422 15/</u>
22	Total of A&G items adjusted elsewhere (Sum of Lines 16 thru 21)	<u>240,003</u>	<u>\$240,003</u>
23	Total A&G expense not adjusted elsewhere (L11 - L22)	<u>67,914</u>	
24	Portion of A&G not adjusted elsewhere related to non-fuel non-payroll energy-related production O&M expense (L10 x L23)	<u>9,370</u>	
25	Total non-fuel, non-payroll energy-related production O&M expense plus related non-payroll A&G expense (L7 + L24)	164,949	
26	Per books NC retail MWH sales	<u>57,542,362 16/</u>	
27	Cost per MWH (\$) (L25 x 1,000 / L26)	<u>\$2.86657</u>	

- 1/ NCUC Form E-1, Item No. 45A, Page 42.
2/ NCUC Form E-1, Item No. 10, NC-0201, Total NC Retail Column, Sum of Lines 2, 4, and 5.
3/ Amount provided by Company at request of Public Staff.
4/ NCUC Form E-1, Item No. 45A, Page 1, Factor 5 - MWH at Generation Level.
5/ NCUC Form E-1, Item No. 10, NC-0601, Line 12, Total NC Retail Column.
6/ NCUC Form E-1, Item No. 45A, Page 46.
7/ NCUC Form E-1, Item No. 45A, Page 48.
8/ McManeus Revised Supplemental Exhibit 1, Page 86, NC-2206, Line 27.
9/ McManeus Revised Supplemental Exhibit 1, Page 93, NC-2209, Line 6.
10/ NCUC Form E-1, Item No. 45A, Page 13, Factor 59 - Wages & Salaries Excluding A&G.
11/ McManeus Revised Supplemental Exhibit 1, Page 108, NC-2601(C), Line 2 plus Boswell Exhibit 1, Schedule 3-1(m), Line 9.
12/ McManeus Revised Supplemental Exhibit 1, Page 115, NC-2701(B), Line 4 plus Line 11.
13/ McManeus Revised Supplemental Exhibit 1, Page 153, NC-3501(C), Line 2 plus Boswell Exhibit 1, Schedule 3-1(n), Line 6.
14/ Boswell Exhibit 1, Schedule 3-1(q), Line 6.
15/ Boswell Exhibit 1, Schedule 3-1(s), Line 12.
16/ NCUC Form E-1, Item No. 10, NC-0201, Line 10 divided by 1,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF BILL-RELATED EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(b)(5)

Line No.	Item	NC Retail Amount (a)	Sub-Calculations (b)
1	2016 per books bill-related O&M expenses:		
2	Account 586 - Meters (operation)	\$7,300 ^{1/}	
3	Account 597 - Meters (maintenance)	1,944 ^{1/}	
4	Account 587 - Customer - installations	8,447 ^{1/}	
5	Accounts 901-905 - Customer accounts	63,797 ^{2/}	
6	Accounts 908-910 - Customer service and information	15,736 ^{2/}	
7	Total 2016 per books bill-related expenses (Sum of Lines 2 thru 6)	97,224	
8	Salaries and wages included in Line 7 - system amount		49,914 ^{3/}
9	NC retail allocation factor		76.4742% ^{4/}
10	NC retail salaries and wages included in Line 7	38,171	\$38,171
11	Uncollectibles expense adjusted elsewhere	9,585 ^{5/}	
12	Total non-payroll bill-related O&M expenses not adjusted elsewhere (L7 - L10 - L11)	49,468	
13	Total O&M expense, excluding A&G expense	2,266,208 ^{6/}	
14	Total non-fuel O&M expense, excluding A&G expense	1,127,681 ^{7/}	
15	Ratio (L12 / L14)	0.043867	
16	Total A&G expense not adjusted elsewhere	67,914 ^{8/}	
17	Portion of A&G not adjusted elsewhere related to non-payroll bill-related O&M expense (L15 x L16)	2,979	
18	Total non-payroll bill-related O&M expenses plus related non-payroll A&G expense (L12 + L17)	52,447	
19	Per books NC retail 2016 bills	27,168,598 ^{9/}	
20	Cost per bill (\$) (L18 x 1,000 / L19)	\$1.93043	

- 1/ NCUC Form E-1, Item No. 45A, Page 44.
2/ NCUC Form E-1, Item No. 45A, Page 46.
3/ Based on information provided by Company.
4/ Average NC retail allocation factor for the accounts listed on Lines 2 thru 6 per NCUC Form E-1, Item 45A.
5/ NCUC Form E-1, Item No. 10, NC-0601, Line 12.
6/ Boswell Exhibit 1, Schedule 3-1(b)(4), Line 8.
7/ Boswell Exhibit 1, Schedule 3-1(b)(4), Line 9.
8/ Boswell Exhibit 1, Schedule 3-1(b)(4), Line 23.
9/ Based on response to Public Staff Data Request No. 54, Item 2.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO DEPRECIATION EXPENSE AND
PROPERTY TAXES FOR PLANT UPDATE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(c)

Line No.	Item	Amount
1	<u>Depreciation expense</u>	
2	Depreciation expense on increase in plant per Public Staff	\$42,192 ^{1/}
3	Company adjustment	<u>51,266 ^{2/}</u>
4	Public Staff adjustment to depreciation expense for update of plant (L2 - L3)	<u><u>(\$9,074)</u></u>
5	<u>General taxes</u>	
6	Update to plant per Public Staff	1,095,077 ^{3/}
7	Less: adjustment to intangible plant	<u>84,512 ^{4/}</u>
8	Adjustment to plant excluding intangible plant (L6 - L7)	1,010,565
9	Property tax rate per \$1000	<u>0.0052032 ^{5/}</u>
10	Impact to property taxes of Public Staff plant update (L8 x L9)	5,258
11	Company adjustment	<u>5,404 ^{6/}</u>
12	Public Staff adjustment to property taxes (L10 - L11)	<u><u>(\$146)</u></u>

- 1/ Boswell Exhibit 1, Schedule 3-1(c)(1), Line 12, Column (e).
2/ McManeus Revised Supplemental Exhibit 1, Page 18, NC-1101(C), Line 57.
3/ Boswell Exhibit 1, Schedule 2-1(a)(1), Line 13, Column (e).
4/ Boswell Exhibit 1, Schedule 2-1(a)(1), Line 9, Column (e).
5/ McManeus Revised Supplemental Exhibit 1, Page 18, NC-1101(C), Line 63.
6/ McManeus Revised Supplemental Exhibit 1, Page 18, NC-1101(C), Line 70 minus Line 66.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF DEPRECIATION
EXPENSE ON PLANT UPDATE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(c)(1)

Line No.	Item	Increase in Plant in Service ^{1/}	Depreciation Rate ^{2/}	Increase in Depreciation ^{3/}	NC Retail Percentage ^{5/}	NC Retail Amount ^{6/}
		(a)	(b)	(c)	(d)	(e)
1	Steam plant	\$136,744	3.32%	\$4,540		
2	Hydro plant	39,599	1.79%	709		
3	Other production plant	127,794	2.95%	3,770		
4	Nuclear plant	139,270	3.38%	4,707		
5	Total production plant	443,407		13,726	67.0068%	\$9,197
6	Transmission plant	270,476	2.03%	5,491	51.2819%	2,816
7	Distribution plant	593,196	2.13%	12,635	73.9544%	9,344
8	General plant	204,411	5.53%	11,304	68.8082%	7,778
9	Intangible plant	122,822	various ^{4/}	19,174 ^{4/}	68.8082%	13,193
10	Total	<u>\$1,634,312</u>		<u>\$62,330</u>		42,328
11	Less: depreciation on REPS additions					136 ^{7/}
12	Depreciation expense per Public Staff					<u>\$42,192</u>

1/ Boswell Exhibit 1, Schedule 2-1(a)(1), Column (c).

2/ Based on recommendation of Public Staff witness McCullar, unless footnoted otherwise.

3/ Column (a) times Column (b).

4/ Based on Company response to Public Staff Data Request No. 109, Item 4.

5/ McManeus Revised Supplemental Exhibit 1, Page 18, Lines 53 thru 56.

6/ Column (c) times Column (d).

7/ Boswell Exhibit 1, Schedule 2-1(a)(1), Line 12 times other production depreciation rate from Line 3, Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO UPDATE REVENUES TO
NOVEMBER 30, 2017
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(d)

Line No.	Item	Amount
	<u>Revenues</u>	
1	Update revenues for customer growth	\$43,681 1/
2	Update revenues for usage	(27,366) 2/
3	Adjust revenues for update (L1 + L2)	<u>\$16,315</u>
	<u>Fuel and Fuel Related Expense</u>	
4	Adjust fuel and fuel-related expense for customer growth update	\$9,719 1/
5	Adjust fuel and fuel-related expense for usage update	(6,025) 2/
6	Adjust fuel expense for change in kwh (L4 + L5)	<u>\$3,694</u>
	<u>Other O&M Expense</u>	
7	Public Staff update adjustment to MHW sales for growth	492,912 1/
8	Public Staff update adjustment to MHW sales for usage	(314,917) 2/
9	Public Staff adjustment to MWH sales (L7 + L8)	177,995
10	Energy-related non-fuel variable O&M expense per kWh in dollars	2.86657 3/
11	Adjustment to energy-related non-fuel variable O&M expense (L9 x L10 / 1000)	<u>510</u>
12	Public Staff change in bills	274,309 4/
13	Annual customer-related variable O&M expense per bill in dollars	1.93043 5/
14	Adjustment to customer-related variable O&M expense (L12 x L13 / 1,000)	<u>530</u>
15	Adjust variable non-fuel O&M expense (L11 + L14)	\$1,040
16	Adjust uncollectibles for increase in revenues	31 6/
17	Adjust regulatory fee for increase in revenues, net of uncollectibles	23 7/
18	Total adjustment to other O&M expenses (L15 + L16 + L17)	<u>\$1,094</u>

1/ Boswell Exhibit 1, Schedule 3-1(d)(1), Line 10.

2/ Boswell Exhibit 1, Schedule 3-1(d)(2), Line 2.

3/ Boswell Exhibit 1, Schedule 3-1(b)(4), Line 27.

4/ Based on the recommendation of Public Staff witness Saillor.

5/ Boswell Exhibit 1, Schedule 3-1(b)(5), Line 20.

6/ Line 3 times uncollectibles rate of 0.19124%.

7/ (Line 3 minus Line 16) times regulatory fee rate of 0.14000%.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF ADJUSTMENT TO
REVENUES AND FUEL RELATED
EXPENSES TO UPDATE CUSTOMER
GROWTH TO NOVEMBER 30, 2017
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(d)(1)

Line No.	Item	Revenues			Fuel & Fuel Related Expenses	
		Public Staff Growth NC KWH Adjustment ^{1/}	Cents per KWH ^{2/}	Public Staff Adjustment ^{3/}	Fuel Costs in Cents per KWH ^{4/}	Public Staff Adjustment ^{5/}
		(a)	(b)	(c)	(d)	(e)
1	Total NC Residential	304,101,678	9.81	\$29,832	1.9131	\$5,818
2	General Service Small and Large	161,495,449	7.16	11,563	2.0570	3,322
3	T2 Flood Lighting / Outdoor Lighting	(635,290)	18.35	(117)	2.0570	(13)
4	Miscellaneous	699,706	17.52	123	2.0570	14
5	Total NC General (L2 + L3 + L4)	161,559,865		11,569		3,323
6	T	7,445,634	14.76	1,099	2.0570	153
7	TS	9,020	14.97 ^{1/}	1	2.0570	0
8	Total NC Street Lighting (L6 + L7)	7,454,654		1,100		153
9	Total NC Industrial	19,795,881	5.96	1,180	2.1491	425
10	Total NC Retail (L1 + L5 + L8 + L9)	492,912,078		\$43,681		\$9,719

- 1/ Amounts per Public Staff witness Sailor.
2/ NCUC Form E-1, Item No. 10, NC-0402, Column (b).
3/ (Column (a) times Column (b)) divided by 100,000.
4/ NCUC Form E-1, Item No. 10, NC-0401, Line 5.
5/ (Column (a) times Column (d)) divided by 100,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF ADJUSTMENT TO
REVENUES AND FUEL RELATED
EXPENSES TO UPDATE USAGE TO
NOVEMBER 30, 2017
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(d)(2)

Line No.	Item	Revenues			Fuel & Fuel Related Expenses	
		Public Staff NC KWH Usage Adjustment ^{1/}	Cents per KWH ^{1/}	Public Staff Adjustment ^{2/}	Fuel Costs in Cents per KWH ^{3/}	Public Staff Adjustment ^{4/}
		(a)	(b)	(c)	(d)	(e)
1	Total NC Residential	<u>(314,916,793)</u>	8.69	<u>(\$27,366)</u>	1.9131	<u>(\$6,025)</u>
2	Total NC Retail	<u><u>(314,916,793)</u></u>		<u><u>(\$27,366)</u></u>		<u><u>(\$6,025)</u></u>

1/ Amounts per Public Staff witness Saillor.

2/ (Column (a) times Column (b)) divided by 100,000.

3/ NCUC Form E-1, Item No. 10, NC-0201, Line 9.

4/ (Column (a) times Column (d)) divided by 100,000.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO DISTRIBUTION VEGETATION
MANAGEMENT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(e)

Line No.	Item	Total Miles (a)	Target Cycle (In Years) (b)	Amount (c)
1	Number of trim miles per year:			
2	Urban Miles	2,180 1/	5 2/	436 3/
3	Mountain Miles	7,831 1/	7 2/	1,119 3/
4	Other Miles	41,603 1/	9 2/	4,623 3/
5	Total number of trim miles (L2 + L3 + L4)	<u>51,614</u>		<u>6,178</u>
6	Cost per mile (in dollars) per Public Staff (L7 x 1,000 / L5)			<u>\$7,263</u>
7	Production cost			\$44,872 4/
8	Demand cost			2,364 5/
9	Herbicide cost			3,086 5/
10	Hazard Tree Program cost			<u>786 5/</u>
11	Total distribution Vegetation Management (VM) per Public Staff (Sum of L7 thru L10)			<u>51,108</u>
12	Adjusted VM - contractor rates and trim per Company			60,054 6/
13	VM program enhancements per Company			<u>8,500 7/</u>
14	Adjusted distribution VM per Company (L12 + L13)			<u>68,554</u>
15	Public Staff adjustment to VM (L11 - L14)			(17,446)
16	NC retail percentage			<u>73.4889% 8/</u>
17	Public Staff adjustment to distribution VM - NC retail (L15 x L16)			<u><u>(\$12,821)</u></u>

- 1/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (a).
2/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (b).
3/ Column (a) divided by Column (b).
4/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (d), Line 8 times 1.07.
5/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (e), Lines 9 thru 11.
6/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (e), Line 12.
7/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3102(A), Column (e), Line 16.
8/ McManeus Revised Supplemental Exhibit 1, Page 133, NC-3101(A), NC Retail Allocation Column, Line 2.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO ALLOCATIONS FROM DEBS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(f)

Line No.	Item	Amount
1	Updated allocations from DEBS to DEC	\$374,481 ^{1/}
2	Test year allocations from DEBS to DEC	380,615 ^{2/}
3	Adjustment to expense allocations from DEBS to DEC (L1 - L2)	(6,134)
4	NC retail allocation factor	67.0068% ^{3/}
5	Adjustment to expense for allocations from DEBS - NC Retail (L3 x L4)	<u>(\$4,110)</u>

1/ From Company Response to Public Staff Data Request No. 96, Item 1 in this proceeding.

2/ From Company Response to Public Staff Data Request No. 15, Item 7 in Docket No. E-2, Sub 1142.

3/ NCUC Form E-1, Item 45A, Factor 1, Total KW (production) factor.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO REMOVE EDIT LIABILITY
FROM BASE RATES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(g)

Line No.	Item	Amount
	<u>Depreciation and amortization expense</u>	
1	Remove EDIT liability amortization included in base rates by Company	<u>\$51,205</u> ^{1/}
	<u>Regulatory assets and liabilities</u>	
2	Remove unamortized balance included in rate base by Company	<u>\$204,821</u> ^{2/}
	<u>Accumulated deferred income taxes (ADIT)</u>	
3	Remove ADIT associated with unamortized balance	<u>(\$76,094)</u> ^{3/}

- 1/ McManeus Revised Supplemental Exhibit 1, NC-2801(C), Page 128, Line 8.
2/ McManeus Revised Supplemental Exhibit 1, NC-2801(C), Page 128, Line 19.
3/ McManeus Revised Supplemental Exhibit 1, Page 128, Line 19 times Line 23.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO CUSTOMER CONNECT
EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(h)

<u>Line No.</u>	<u>Item</u>	<u>Amount</u>
1	Remove 2018-2020 forecasted Customer Connect costs	<u><u>(\$10,694)</u></u> ^{1/}

1/ NCUC Form E-1, Item No. 10, NC-3001, Line 14.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO DUKE PIEDMONT COSTS TO
ACHIEVE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(i)

Line No.	Item	Amount
1	Remove Duke Piedmont CTAs from O&M expenses	(\$9,626) ^{1/}
2	NC retail allocation percentage	<u>67.0068% ^{2/}</u>
3	Adjustment to remove NC retail portion of Duke Piedmont CTAs (L1 x L2)	<u><u>(\$6,450)</u></u>

1/ From Company Response to Public Staff Data Request No. 95, Item 9.

2/ NCUC Form E-1, Item 45A, Factor 1, Total KW (production) factor.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT FOR CHANGE IN DEPRECIATION RATES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(j)

Line No.	Item	Total System (a)	NC Retail Percentage (b)	NC Retail Amount (c)
	<u>Change in depreciation and amortization per Public Staff</u>			
1	Production	\$56,117	67.0068%	\$37,602 ^{3/}
2	Transmission	(3,120)	51.2819%	(1,600) ^{3/}
3	Distribution	(9,636)	73.9544%	(7,126) ^{3/}
4	General	(12,492)	68.8082%	(8,596) ^{3/}
5	General amortization	(10,159)	68.8082%	(6,990) ^{3/}
6	Public Staff adjustment to depreciation and amortization expense (Sum of L1 thru L5)	<u>\$20,710</u>		13,290
7	Adjustment per Company			<u>57,303 ^{4/}</u>
8	Adjustment to depreciation and amortization expense (L6 - L7)			<u>(\$44,013)</u>
9	Adjustment to accumulated depreciation (-L8)			<u>\$44,013</u>

1/ Based on recommendation of Public Staff witness McCullar.

2/ McManeus Revised Supplemental Exhibit 1, Page 13, NC-1001(B), Lines 3 thru 7, NC Retail Allocation Column.

3/ Column (a) times Column (b).

4/ McManeus Revised Supplemental Exhibit 1, Page 13, NC-1001(B), Line 8, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO INCENTIVES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(k)

Line No.	Item	Amount
	Short Term Incentive Plan (STIP)	
1	Total Company STIP pay accrued expense associated with earnings per share (EPS)	\$121,273 ^{1/}
2	Total Company STIP accrual	363,807 ^{1/}
3	Percentage of STIP related to EPS (L1 / L2)	33.33%
4	STIP at target level associated with O&M expense per Company, net of Joint Owners	90,787 ^{2/}
5	Adjustment to remove STIP related to EPS outcomes - total system (-L3 x L4)	(30,263)
6	NC retail percentage	68.0211% ^{3/}
7	Adjustment to remove STIP related to EPS outcomes - NC retail (L5 x L6)	(20,585)
8	Executive STIP already removed in executive compensation adjustment	197 ^{4/}
9	Adjustment to STIP (L7 + L8)	<u>(\$20,388)</u>
	Long Term Incentive Plan (LTIP)	
10	LTIP Performance Shares associated with EPS and TSR at target, net Joint Owners	\$7,830 ^{5/}
11	Adjustment to remove LTIP associated with EPS and TSR - total system (-L10)	(7,830)
12	NC retail percentage	68.0211% ^{3/}
13	Adjustment to remove LTIP associated with EPS and TSR - NC retail (L11 x L12)	(5,326)
14	Executive LTIP already removed in executive compensation adjustment	572 ^{4/}
15	Adjustment to LTIP (L13 + L14)	<u>(\$4,754)</u>
16	Total adjustment to incentive pay (L9 + L15)	<u>(\$25,142)</u>

1/ From Company Response to Public Staff Data Request No. 35, Item 7.

2/ McManeus Revised Supplemental Exhibit 1, Page 94, NC-2210, Line 13, net of Catawba Joint Owners.

3/ McManeus Revised Supplemental Exhibit 1, Page 81, NC-2201(C), Line 46, NC Retail Allocation Column.

4/ Based on executive compensation adjustment.

5/ McManeus Revised Supplemental Exhibit 1, Page 97, NC-2210-3, Line 13, Column (b), net of Catawba Joint Owners.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO EXECUTIVE COMPENSATION
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(I)

Line No.	Item	Amount
1	Executive compensation for top 4 executives per Company	\$7,854 ^{1/}
2	Inclusion of additional executive in adjustment	759 ^{2/}
3	Inclusion of executive benefits in adjustment	390 ^{3/}
4	Executive compensation subject to exclusion adjustment per Public Staff (L1 + L2 + L3)	9,004
5	Catawba reimbursement allocation rate	15.218% ^{4/}
6	Non-ownership percentage in Catawba plant	80.754% ^{5/}
7	Costs reimbursed by Catawba Joint Owners (L4 x L5 x L6)	1,106
8	Compensation subject to exclusion after Joint Owners' Share (L4 - L7)	7,897
9	NC retail Allocation Factor	68.0211% ^{6/}
10	NC retail portion of executive compensation subject to exclusion adjustment (L8 x L9)	5,372
11	Exclusion percentage	50.00% ^{7/}
12	Public Staff adjustment to exclude executive compensation (L10 x L11)	(2,686)
13	Adjustment per Company	(2,343) ^{8/}
14	Adjustment to remove additional executive compensation (L12 x L13)	<u>(\$343)</u>

^{1/} NCUC Form E-1, Item No. 10, NC-0701, Line 4.

^{2/} From Company response to Public Staff Data Request No. 29, Item 3.

^{3/} From Company response to Public Staff DEP Data Request No. 106, Item 2, utilizing DEC DGEX and UTEX allocation factors.

^{4/} NCUC Form E-1, Item No. 10, NC-0701, Line 5.

^{5/} NCUC Form E-1, Item No. 10, NC-0701, Line 6.

^{6/} NCUC Form E-1, Item No. 10, NC-0701, Line 10.

^{7/} NCUC Form E-1, Item No. 10, NC-0701, Line 12.

^{8/} NCUC Form E-1, Item No. 10, NC-0701, Line 13.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO AVIATION EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(m)

Line No.	Item	Amount
	Wages, benefits, materials, etc.	
1	Corporate aviation O&M and depreciation expense	\$6,392 1/
2	Percentage to be excluded per Public Staff	78.48% 2/
3	Corporate aviation expenses to be excluded per Public Staff (L1 x L2)	5,016
4	Specific charter flights to be excluded	-
5	Total corporate aviation expenses to be excluded per Public Staff (L3 + L4)	5,016
6	Corporate aviation expenses to be excluded per Company	2,553 3/
7	Additional aviation O&M expenses to be excluded (L5 - L6)	2,463
8	NC retail percentage	67.4240% 4/
9	Public Staff adjustment to aviation O&M expenses (-L7 x L8)	(\$1,661)
	General taxes	
10	Corporate aviation general taxes	\$92 5/
11	Percentage to be excluded per Public Staff	78.48% 2/
12	Corporate aviation general taxes to be excluded per Public Staff (L10 x L11)	72
13	Corporate aviation general taxes to be excluded per Company	37 6/
14	Additional aviation general taxes to be excluded (L12 - L13)	35
15	NC retail percentage	68.0211% 7/
16	Public Staff adjustment to aviation general taxes (-L14 x L15)	(\$24)

1/ McManeus Revised Supplemental Exhibit 1, Page 109, NC-2602(C), Line 29.

2/ Calculated by Public Staff based on Company response to Public Staff Data Request No. 13, Item 10 and Public Staff Data Request No. 48.

3/ McManeus Revised Supplemental Exhibit 1, Page 109, NC-2602(C), Line 31.

4/ McManeus Revised Supplemental Exhibit 1, Page 108, NC-2601(C), Line 2, NC Retail Allocation Column.

5/ McManeus Revised Supplemental Exhibit 1, Page 109, NC-2602(C), Line 1, Total Duke Energy Carolinas Column.

6/ McManeus Revised Supplemental Exhibit 1, Page 109, NC-2602(C), Line 3, Total Duke Energy Carolinas Column.

7/ McManeus Revised Supplemental Exhibit 1, Page 108, NC-2601(C), Line 5, NC Retail Allocation Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO OUTSIDE SERVICES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(n)

Line No.	Item	Amount
1	Remove items related to coal ash litigation	(\$2,109) ^{1/}
2	Items identified by Public Staff that Company has agreed to remove	(678) ^{1/}
3	Items identified by Public Staff that should be removed	<u>(325) ^{1/}</u>
4	Total Public Staff adjustment to outside services (L1 + L2 + L3)	(3,112)
5	NC retail percentage	<u>68.0211% ^{2/}</u>
6	Public Staff adjustment to outside services - NC retail (L4 x L5)	<u><u>(\$2,117)</u></u>

1/ Based on information provided by Company in response to Public Staff Data Request No. 77, Items 1 and 2 and advice of legal counsel.

2/ NCUC Form E-1, Item No. 45A, Factor 59 - Labor (Wage and Salary Related Items).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
**ADJUSTMENT TO LEE COMBINED CYCLE ADDITION IMPACT
TO INCOME STATEMENT**
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(o)

Line No.	Item	Amount
1	<u>Other O&M Expense:</u>	
2	Lee Combined Cycle - estimated incremental O&M updated per Company	\$2,958 1/
3	Adjustment to remove estimated amount for incremental O&M expense (-L1)	<u>(2,958)</u>
4	Lee Combined Cycle incremental O&M per Public Staff (L1 + L2)	\$0
5	NC retail allocation factor	<u>67.0068% 2/</u>
6	Lee Combined Cycle incremental O&M NC Retail per Public Staff (L4 x L5)	0
7	Lee Combined Cycle - estimated incremental O&M as originally filed	<u>6,031 3/</u>
8	Public Staff adjustment to Lee Combined Cycle incremental O&M (L6 - L7)	<u><u>(\$6,031)</u></u>
	<u>Depreciation Expense:</u>	
9	Lee Combined Cycle plant addition	\$569,245 4/
10	NC retail allocation percentage	<u>67.0068% 5/</u>
11	Lee Combined Cycle plant addition - NC retail (L9 x L10)	381,433
12	Depreciation rate per Public Staff	<u>2.75% 6/</u>
13	Lee Combined Cycle depreciation expense (L11 x L12)	10,489
14	Amount per Company	<u>10,795 7/</u>
15	Adjustment to depreciation expense (L13 - L14)	<u><u>(\$306)</u></u>

- 1/ Per Company revised response to Public Staff Data Request No. 93, Item 2.
2/ McManeus Revised Supplemental Exhibit 1, Page 25, NC-1201(C), Line 34, NC Retail Allocation Column.
3/ McManeus Revised Supplemental Exhibit 1, Page 25, NC-1201(C), Line 34, Total NC Retail Column.
4/ McManeus Revised Supplemental Exhibit 1, Page 24, NC-1201(C), Line 7, Total Carolinas Column.
5/ McManeus Revised Supplemental Exhibit 1, Page 24, NC-1201(C), Line 7, NC Retail Allocation Column.
6/ Based on recommendation of Public Staff witness McCullar.
7/ McManeus Revised Supplemental Exhibit 1, Page 25, NC-1201(C), Line 37, Total NC Retail Column.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO LEE COMBINED CYCLE DEFERRAL
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(p)

Line No.	Item	Amount
	<u>Annuity Factor</u>	
1	Amortization period recommended by Public Staff in years	5
2	Payment per period	1
3	After tax rate of return	6.2940% ^{1/}
4	Present value of 1 dollar over number of years with 1 payment per year	4.1789
5	1 plus (interest rate divided by two)	1.0315
6	Annuity factor (L4 x L5)	<u>4.3105</u>
7	Deferred costs per Public Staff	\$12,316 ^{2/}
8	Annuity factor per Public Staff (L6)	<u>4.3105</u>
9	Annual levelized amortization expense per Public Staff (L7 / L8)	2,857
10	Annual amortization expense per Company	<u>7,212 ^{3/}</u>
11	Adjustment to Lee CC deferral amortization expense (L9 - L10)	<u>(\$4,355)</u>
12	Unamortized balance included in rate base by Company	<u>\$14,424 ^{4/}</u>
13	Adjustment to remove unamortized balance from rate base (-L12)	<u>(\$14,424)</u>
14	ADIT included in rate base by Company	<u>(\$5,359) ^{5/}</u>
15	Adjustment to ADIT (-L14)	<u>\$5,359</u>

- 1/ Boswell Exhibit 2, Schedule 1(a), Line 9, Column (d).
2/ Boswell Exhibit 1, Schedule 3-1(p)(1), Line 22, Column (e).
3/ McManeus Revised Supplemental Exhibit 1, Page 29, NC-1301(C), Line 4.
4/ McManeus Revised Supplemental Exhibit 1, Page 29, NC-1301(C), Line 15.
5/ McManeus Revised Supplemental Exhibit 1, Page 29, NC-1301(C), Line 18.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF DEFERRED COSTS FOR LEE
COMBINED CYCLE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(p)(1)

Line No.	Item	January 2018 (a)	February 2018 (b)	March 2018 (c)	April 2018 (d)	Total (e) ^{11/}
1	Prior plant balance	\$0	\$0 ^{10/}	\$381,433 ^{10/}	\$381,433 ^{10/}	
2	Plant placed in service for month	0	381,433 ^{1/}	0	0	
3	Plant balance (L1 + L2)	0	381,433	381,433	381,433	
4	ADIT balance (bonus depreciation)	0	(3,761) ^{2/}	(7,522) ^{2/}	(11,283) ^{2/}	
5	Average inventory balance	0	5,330 ^{3/}	5,330 ^{3/}	5,330 ^{3/}	
6	Rate base balance for return (L3 + L4 + L5)	0	383,002	379,241	375,480	
7	Monthly pre-tax cost of capital rate	0.796158% ^{4/}	0.796158% ^{4/}	0.796158% ^{4/}	0.796158% ^{4/}	
8	Deferred cost of capital (L6 x L7)	0	3,049	3,019	2,989	9,057
9	Plant balance (L3)	0	381,433	381,433	381,433	
10	Monthly depreciation rate	0.2292% ^{5/}	0.2292% ^{5/}	0.2292% ^{5/}	0.2292% ^{5/}	
11	Deferred depreciation expense (L9 x L10)	0	874	874	874	2,622
12	Deferred O&M expense	0	0 ^{6/}	0 ^{6/}	0 ^{6/}	0
13	Plant balance (L3)	0	381,433	381,433	381,433	
14	Monthly property tax rate	0.043360% ^{7/}	0.043360% ^{7/}	0.043360% ^{7/}	0.043360% ^{7/}	
15	Deferred property tax expense (L13 x L14)	0	165	165	165	495
16	Cumulative deferred costs	0	3,923 ^{8/}	7,816 ^{8/}	11,679 ^{8/}	
17	Composite income tax rate	23.6619% ^{9/}	23.6619% ^{9/}	23.6619% ^{9/}	23.6619% ^{9/}	
18	Income tax on deferred expenses (-L16 x L17)	0	(928)	(1,849)	(2,763)	
19	Deferred costs, net of tax (L16 + L18)	0	2,995	5,967	8,916	
20	Monthly pre-tax cost of capital rate (L7)	0.796158%	0.796158%	0.796158%	0.796158%	
21	Pre-tax return on deferred expenses (L19 x L20)	0	24	48	71	142
22	Total deferred costs per Public Staff (L8 + L11 + L12 + L15 + L21)	\$0	\$4,112	\$4,106	\$4,099	\$12,316

1/ Boswell Exhibit 1, Schedule 3-1(o), Line 11.

2/ Negative of Line 3 times 50% divided by twelve times composite tax rate of 23.6619% plus ADIT balance from prior month.

3/ Boswell Exhibit 1, Schedule 2-1(b), Line 6.

4/ Boswell Exhibit 1, Schedule 3-1(p)(2), Line 4, Column (d) divided by twelve.

5/ Depreciation rate per Public Staff witness McCullar of 2.75% divided by twelve.

6/ Boswell Exhibit 1, Schedule 3-1(o), Line 6 divided by twelve.

7/ Boswell Exhibit 1, Schedule 3-1(c), Line 9 divided by twelve.

8/ Amounts for current month from Lines 8, 11, and 12 plus deferred costs from prior month from Line 16.

9/ Boswell Exhibit 1, Schedule 1-3, Line 8.

10/ Plant balance from prior month from Line 3.

11/ Sum of Columns (a) through (d).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF PRE-TAX RATE BASED ON LAST
RATE CASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(p)(2)

Line No.	Item	Capital Structure (a)	Cost Rates (b)	2018 Tax Rate (c)	Rate (d)
1	<u>Pre-tax rate based on last rate case</u>				
2	Long term debt	47.00% 1/	5.26% 1/		2.4722% 3/
3	Equity	53.00% 1/	10.20% 1/	23.6619% 2/	7.0817% 4/
4	Pre-tax rate (L2 + L3)				<u>9.5539%</u>

1/ Order Granting General Rate Increase issued on September 24, 2013, in Docket No. E-7, Sub 1026, Page 69.

2/ Boswell Exhibit 1, Schedule 1-3, Line 8.

3/ Column (a) times Column (b).

4/ (Column (a) times Column (b)) divided by (1 minus Column (c)).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO SPONSORSHIPS AND DONATIONS
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(q)

Line No.	Item	Amount
1	Remove sponsorships and donations related to chambers of commerce	(\$498) ^{1/}
2	Remove donations related to RIPON society and NC Chamber Foundation	(154) ^{2/}
3	Remove miscellaneous dues and contributions	<u>(73) ^{3/}</u>
4	Total sponsorships and donations to be removed per Public Staff (L1 + L2 + L3)	(725)
5	NC retail percentage	<u>67.0068% ^{4/}</u>
6	Public Staff adjustment to remove sponsorships and donations - NC retail (L4 x L5)	<u><u>(\$486)</u></u>

1/ From Company response to Public Staff Data Request No. 80, Item 3.

2/ From Company response to Public Staff Data Request No. 80, Item 4.

3/ Based on review of NCUC Form E-1, Item No. 16(c).

4/ Factor 1 - Total KW (production factor) from NCUC Form E-1, Item No.45A, Page 1.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO LOBBYING EXPENSE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(r)

Line No.	Item	Amount
1	Remove Stakeholder Engagement O&M charges related to lobbying	(\$289) ^{1/}
2	Remove State Government Affairs O&M charges related to lobbying	(161) ^{1/}
3	Remove Federal Affairs O&M charges related to lobbying	<u>(353) ^{1/}</u>
4	Total lobbying costs to be removed from O&M expense (L1 + L2 + L3)	(804)
5	NC retail percentage	<u>68.0211% ^{2/}</u>
6	Public Staff adjustment to remove lobbying expense (L4 x L5)	<u><u>(\$547)</u></u>

1/ Based on Company response to Public Staff Data Request No. 24, Items 3 and 4.

2/ Labor allocation factor.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO BOARD OF DIRECTORS EXPENSE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(s)

Line No.	Item	Amount
1	Total Board of Directors (BOD) cash compensation	\$778 ^{1/}
2	Percentage of exclusion per Public Staff	50% ^{2/}
3	Public Staff adjustment to BOD compensation (-L1 x L2)	<u>(389)</u>
4	BOD insurance charged to DEC	6,042 ^{3/}
5	Percentage of exclusion per Public Staff	50% ^{2/}
6	Public Staff adjustment to BOD insurance (-L4 x L5)	<u>(3,021)</u>
7	BOD and executive members expenses allocated to DEC	410 ^{4/}
8	Percentage of exclusion per Public Staff	50% ^{2/}
9	Public Staff adjustment to BOD and executive members expenses (-L7 x L8)	<u>(205)</u>
10	Total Public Staff adjustment to BOD compensation and expenses (L3 + L6 + L9)	(3,615)
11	NC retail percentage	67.0068% ^{5/}
12	Public Staff adjustment to BOD expenses - NC retail (L10 x L11)	<u><u>(\$2,422)</u></u>

1/ Amount from 2017 Proxy Statement page 35, allocated to DEC.

2/ Recommended by Public Staff.

3/ Company Response to Public Staff Data Request No. 42, Item 1.

4/ Company Response to Public Staff Data Request No. 42, Item 2.

5/ Factor 1 - Total KW (production factor) from NCUC Form E-1, Item No.45A, Page 1.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO FUEL AND FUEL-RELATED COST CLAUSE
REVENUES AND EXPENSES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(t)

Line No.	Item	Residential (a)	General Service & Lighting (b)	Industrial (c)	Total (d)
1	Fuel and fuel-related cost (F&FRC) expense at present rates:				
2	NC retail adjusted kWh sales (L12)	21,382,977,186	23,318,279,540	12,796,049,987	
3	Present F&FRC expense factors	<u>\$1.7828</u> ^{1/}	<u>\$1.9163</u> ^{1/}	<u>\$2.0207</u> ^{1/}	
4	F&FRC expense per Public Staff (L2 x L3 / 100,000)	<u>381,216</u>	<u>446,848</u>	<u>258,570</u>	\$1,086,634 ^{9/}
5	F&FRC clause expense previously included in case:				
6	NC retail kWh actual sales	21,292,252,754 ^{2/}	23,371,529,080 ^{2/}	12,878,580,435 ^{2/}	
7	Public Staff kWh adjustment to test year weather	(59,998,332) ^{3/}	(243,575,214) ^{3/}	(108,371,252) ^{3/}	
8	Public Staff kWh adjustment for test year customer growth	132,208,056 ^{4/}	21,311,155 ^{4/}	6,044,923 ^{4/}	
9	Public Staff kWh adjustment to test year usage	29,329,823 ^{5/}	-	-	
10	Public Staff kWh adjustment to update growth to 11-30-17	304,101,678 ^{6/}	169,014,519 ^{6/}	19,795,881 ^{6/}	
11	Public Staff kWh adjustment to update usage to 11-30-17	<u>(314,916,793)</u> ^{7/}	<u>-</u>	<u>-</u>	
12	NC retail adjusted kWh sales (Sum of L6 thru L11)	<u>21,382,977,186</u>	<u>23,318,279,540</u>	<u>12,796,049,987</u>	
13	F&FRC expense factor proposed by Company	<u>\$1.9131</u> ^{8/}	<u>\$2.0570</u> ^{8/}	<u>\$2.1491</u> ^{8/}	
14	Total F&FRC expense previously included in case (L12 x L13 / 100,000)	<u>409,078</u>	<u>479,657</u>	<u>275,000</u>	1,163,735 ^{9/}
15	Public Staff adjustment to fuel & fuel related expense (L4 - L14)				<u>(\$77,101)</u>
16	Public Staff adjustment to base fuel revenues				<u>(\$77,209)</u> ^{10/}
17	Public Staff adjustment to regulatory fee expense				<u>(\$108)</u> ^{11/}

- 1/ Prospective component of fuel and fuel-related cost rate approved by the Commission on August 14, 2017 in Docket No. E-7, Sub 1129.
2/ NCUC Form E-1, Item No. 10, NC-0201, Line 10.
3/ Boswell Exhibit 1, Schedule 3-1(b)(1), Column (a).
4/ Boswell Exhibit 1, Schedule 3-1(b)(2), Column (a).
5/ Boswell Exhibit 1, Schedule 3-1(b)(3), Column (a).
6/ Boswell Exhibit 1, Schedule 3-1(d)(1), Column (a).
7/ Boswell Exhibit 1, Schedule 3-1(d)(2), Column (a).
8/ NCUC Form E-1, Item No. 10, NC-0201, Line 9.
9/ Sum of Columns (a) thru (c).
10/ Line 15 divided by (1 minus regulatory fee rate of 0.1400%).
11/ Line 16 times regulatory fee rate of 0.1400%.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO LEE NUCLEAR COST
AMORTIZATION
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(u)

Line No.	Item	Amount
	<u>Depreciation and amortization expense</u>	
1	Balance for amortization per Company	\$356,470 ^{1/}
2	Adjustment to remove costs associated with design of visitor center	(340) ^{2/}
3	Adjustment to AFUDC	<u>(9,087) ^{3/}</u>
4	Balance for amortization per Public Staff (L1 + L2 + L3)	347,043
5	Amortization period in years	<u>12 ^{4/}</u>
6	Annual amortization expense per Public Staff (L4 / L5)	28,920
7	Amount per Company	<u>29,706 ^{5/}</u>
8	Adjustment to depreciation and amortization expense (L6 - L7)	<u><u>(\$786)</u></u>
	<u>Rate base line items</u>	
9	Remove unamortized balance of Lee Nuclear costs from rate base	(\$326,764) ^{6/}
10	Remove impact to ADIT	121,398 ^{7/}

- 1/ McManeus Revised Supplemental Exhibit 1, Page 36, Line 2.
2/ Based on the recommendation of Public Staff witness Metz, allocated utilizing Factor 1.
3/ McManeus Revised Supplemental Exhibit 1, Page 37, NC-1402(C), AFUDC amounts for the months of January through April 2018, based on the recommendation of Public Staff witness Maness.
4/ McManeus Revised Supplemental Exhibit 1, Page 36, Line 3.
5/ McManeus Revised Supplemental Exhibit 1, Page 36, Line 4.
6/ Negative of amount from McManeus Revised Supplemental Exhibit 1, Page 36, Line 15.
7/ Negative of amount from McManeus Revised Supplemental Exhibit 1, Page 36, Line 18.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO SALARIES AND WAGES
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(v)

Line No.	Item	Duke Energy Carolinas (a)	Duke Energy Progress (b)	Total (c)
1	Labor per payroll company at November 30, 2017	\$792,393 ^{1/}	\$448,266 ^{1/}	
2	November 2017 allocation percentages	85.77% ^{2/}	6.85% ^{2/}	
3	Annual salaries as of November 30, 2017 per Public Staff (L1 x L2)	679,635	30,706	
4	Per books salaries	658,235 ^{3/}	28,985 ^{3/}	
5	Adjustment to salaries and wages for DEC & DEP employees per Public Staff	21,400	1,721	\$23,121 ^{5/}
6	Company adjustment to salaries and wages for DEC & DEP employees	24,141 ^{4/}	(150) ^{4/}	23,991 ^{5/}
7	Adjustment to salaries and wages for DEC & DEP employees	<u>(\$2,741)</u>	<u>\$1,871</u>	<u>(870)</u>
8	Service Company salaries and wages at 11/30/17			692,839 ^{1/}
9	Service Company salaries and wages at 12/31/16			664,222 ^{6/}
10	Change in service company salaries from 12/31/16 to 11/30/17 (L8 - L9)			28,617
11	Change in service company allocation percentage			-0.86% ^{7/}
12	Adjustment to salaries and wages for service company employees (L10 x L11)			<u>(246)</u>
13	Public Staff adjustment to total salaries and wages (L7 + L12)			(1,116)
14	Percent charged to electric expense			67.36% ^{8/}
15	Adjustment to net electric O&M salaries and wages (L13 x L14)			<u>(752)</u>
16	Adjustment to net electric O&M salaries and wages (L15)			(752)
17	Fringe benefits contribution rate			15.56% ^{9/}
18	Adjustment to fringe benefits (L16 x L17)			<u>(117)</u>
19	Total adjustment to O&M expense - total system (L15 + L18)			(869)
20	NC retail percentage			68.0211% ^{10/}
21	Total adjustment to O&M expense - NC retail (L19 x L20)			<u><u>(\$591)</u></u>
22	Impact on payroll taxes before Medicare			(\$40) ^{11/}
23	Impact on Medicare payroll taxes			(11) ^{12/}
24	Adjustment to payroll taxes - total system (L22 + L23)			(51)
25	NC retail percentage			68.0211% ^{10/}
26	Adjustment to payroll taxes - NC retail (L24 x L25)			<u><u>(\$35)</u></u>

- 1/ McManeus Revised Supplemental Exhibit 1, Page 84, NC-2204(C).
2/ From Company response to Public Staff Data Request No. 101, Item 1.
3/ McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C), Labor per Books Column.
4/ McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C), Pro Forma HR Salaries Column.
5/ Column (a) plus Column (b).
6/ Amount provided by Company at Public Staff request.
7/ Percentage at November 30, 2017 of 27.24% from Company response to Public Staff Data Request No. 101, Item 1 less percentage per Company of 28.10% from McManeus Revised Supplemental Exhibit 1, Page 84, NC-2204(C), Line 7.
8/ McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C), Line 18.
9/ McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C), Line 37.
10/ McManeus Revised Supplemental Exhibit 1, Page 81, NC-2201(C), NC Retail Allocation Column.
11/ Line 15 times 86.74% subject to OASDI times 6.2% OASDI tax rate from McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C).
12/ Line 15 times 1.45% Medicare tax rate from McManeus Revised Supplemental Exhibit 1, Page 80, NC-2201(C).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO NUCLEAR DECOMMISSIONING
EXPENSE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(w)

Line No.	Item	Amount
1	Adjustment to nuclear decommissioning expense - total system	(\$29,000) ^{1/}
2	NC retail allocation percentage	<u>67.0068% ^{2/}</u>
3	Adjustment to nuclear decommissioning expense - NC retail (L1 x L2)	<u><u>(\$19,432)</u></u>
4	Adjustment to regulatory assets and liabilities (-L3)	<u><u>\$19,432</u></u>
5	Adjustment to accumulated deferred income taxes	<u><u>(\$4,598) ^{3/}</u></u>

1/ Based on the recommendation of Public Staff witness Hinton.

2/ Factor 1 - Total KW (production factor) from NCUC Form E-1, Item No.45A, Page 1.

3/ Negative of Line 4 times composite tax rate of 23.6619% from Boswell Exhibit 1, Schedule 1-3, Line 8.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
ADJUSTMENT TO COMPANY'S INFLATION ADJUSTMENT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(x)

Line No.	Item	Amount
1	Total non-labor O&M expense to be adjusted per Company	\$526,207 1/
2	Remove uncollectibles adjusted elsewhere	(9,585) 2/
3	Public Staff adjustment to variable O&M expenses for changes in customer growth	613 3/
4	Public Staff adjustment to aviation expense	(1,661) 4/
5	Public Staff adjustment to outside services	(2,117) 5/
6	Public Staff adjustment to sponsorships and donations	(486) 6/
7	Public Staff adjustment to Board of Directors expenses	(2,422) 7/
8	Total adjusted O&M subject to inflation (Sum of L1 thru L6)	510,549
9	Inflation percentage based on November 30, 2017 update	3.35% 8/
10	Public Staff inflation adjustment (L7 x L8)	17,103
11	Inflation adjustment per Company	16,707 9/
12	Public Staff adjustment to inflation adjustment (L9 - L10)	<u>\$396</u>

- 1/ McManeus Revised Supplemental Exhibit 1, Page 72, NC-2101, Line 22, Column (c).
2/ NCUC Form E-1, Item No. 45A, Page 46, Account 904 - Uncollectible Accounts, NC Retail amount.
3/ Boswell Exhibit 1, Schedule 3-1(b), Line 20, Column (c) plus Boswell Exhibit 1, Schedule 3-1(d), Line 15.
4/ Boswell Exhibit 1, Schedule 3-1(m), Line 9.
5/ Boswell Exhibit 1, Schedule 3-1(n), Line 6.
6/ Boswell Exhibit 1, Schedule 3-1(q), Line 6.
7/ Boswell Exhibit 1, Schedule 3-1(s), Line 12.
8/ Boswell Exhibit 1, Schedule 3-1(x)(1), Line 4, Column (e).
9/ McManeus Revised Supplemental Exhibit 1, Page 72, NC-2101(C), Line 24, Column (c).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF INFLATION RATE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(x)(1)

Line No.	Item	CPI (a)	PPI Finished Goods Less Food & Energy (b)	PPI Processed Materials Less Food & Energy (c)	PPI Average (d)	Inflation Rate (e)
1	November 2017	246.669 ^{1/}	200.7 ^{1/}	195.7 ^{1/}		
2	Thirteen month average for test year	239.7 ^{2/}	195.1 ^{2/}	186.9 ^{2/}		
3	Increase from average to November 2017 (L1 - L2)	7.0	5.6	8.8		
4	Percentage increase	2.91% ^{3/}	2.87% ^{3/}	4.71% ^{3/}	3.79% ^{4/}	<u>3.35% ^{5/}</u>

1/ Based on information from Bureau of Labor & Statistics, provided in response to Public Staff Data Request No. 99, Item 1.

2/ McManeus Revised Supplemental Exhibit 1, Page 73, NC-2102(C), Line 15.

3/ Line 3 divided by Line 2.

4/ Average of percentage increases in Columns (b) and (c).

5/ Average of CPI percentage increase and PPI average percentage increase in Columns (a) and (d).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
INTEREST SYNCHRONIZATION ADJUSTMENT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(y)

Line No.	Item	Amount
1	Public Staff original cost rate base	\$13,123,100 ^{1/}
2	Public Staff long term debt ratio	50.000% ^{2/}
3	Public Staff embedded cost of debt	<u>4.570% ^{3/}</u>
4	Public Staff interest expense income tax deduction (L1 x L2 x L3)	299,863
5	Company interest expense income tax deduction	<u>307,766 ^{4/}</u>
6	Adjustment to interest expense (L4 - L5)	(7,903)
7	Composite tax rate	<u>23.6619% ^{5/}</u>
8	Adjustment to income taxes (-L6 x L7)	<u><u>\$1,870</u></u>

1/ Boswell Exhibit 1, Schedule 2, Line 12, Column (c).

2/ Boswell Exhibit 1, Schedule 4, Line 1, Column (a).

3/ Boswell Exhibit 1, Schedule 4, Line 1, Column (c).

4/ Boswell Exhibit 1, Schedule 3-1(y)(1), Line 4.

5/ Boswell Exhibit 1, Schedule 1-3, Line 8.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF COMPANY'S INTEREST
SYNCHRONIZATION ADJUSTMENT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 3-1(y)(1)

Line No.	Item	Amount
1	NC retail rate base per Company	\$13,814,781 1/
2	Long term debt ratio per Company	47.000% 2/
3	Long term debt cost rate per Company	<u>4.740% 3/</u>
4	Interest tax deduction per Company (L1 x L2 x L3)	<u><u>\$307,766</u></u>

1/ Boswell Exhibit 1, Schedule 2, Line 12, Column (a).

2/ McManeus Revised Supplemental Exhibit 1, Page 136, NC-3201(C), Line 6.

3/ McManeus Revised Supplemental Exhibit 1, Page 136, NC-3201(C), Line 9.

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
RETURN ON EQUITY AND ORIGINAL COST RATE BASE BEFORE AND
AFTER PUBLIC STAFF PROPOSED DECREASE
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 4

Line No.	Item	Capitalization Ratio (a)	Before Public Staff Proposed Decrease				After Public Staff Proposed Decrease			
			NC Retail Rate Base (b)	Embedded Cost or Return (c)	Weighted Cost or Return (d)	Net Operating Income (e)	NC Retail Rate Base (f)	Embedded Cost or Return (g)	Weighted Cost or Return (h)	Net Operating Income (i)
1	Long-term debt	50.000% ^{1/}	\$6,561,550 ^{2/}	4.570% ^{1/}	2.29% ^{5/}	\$299,863 ^{6/}	\$6,549,596 ^{9/}	4.570% ^{1/}	2.29% ^{11/}	\$299,317 ^{12/}
2	Common equity	50.000% ^{1/}	6,561,550 ^{2/}	12.43% ^{4/}	6.22% ^{5/}	815,686 ^{7/}	6,549,596 ^{9/}	9.10% ^{1/}	4.55% ^{11/}	596,013 ^{12/}
3	Total (L1 + L2)	100.000%	\$13,123,100 ^{3/}		8.51%	\$1,115,549 ^{8/}	\$13,099,191 ^{10/}		6.84%	\$895,330

1/ Per Public Staff witness Parcell.

2/ Column (b), Line 3 times Column (a)

3/ Boswell Exhibit 1, Schedule 2, Line 12, Column (c).

4/ Column (e) divided by Column (b).

5/ Column (a) times Column (c).

6/ Column (b) times Column (c).

7/ Line 3, Column (e) minus Line 1, Column (e).

8/ Boswell Exhibit 1, Schedule 3, Line 16, Column (c).

9/ Column (f), Line 3 times Column (a)

10/ Boswell Exhibit 1, Schedule 2, Line 12, Column (e).

11/ Column (a) times Column (g).

12/ Column (f) times Column (g).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF PUBLIC STAFF'S ADDITIONAL GROSS
REVENUE REQUIREMENT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 1
Schedule 5

Line No.	Item	Debt (a)	Equity (b)	Total (c) ^{7/}
	<u>Calculation of additional gross revenue requirement</u>			
1	Required net operating income	\$299,317 ^{1/}	\$596,013 ^{4/}	\$895,330
2	Net operating income before proposed increase	<u>\$299,863 ^{2/}</u>	<u>815,686 ^{5/}</u>	<u>1,115,549</u>
3	Additional net operating income requirement (L1 - L2)	(546)	(219,673)	(220,219)
4	Retention factor	<u>0.9966903 ^{3/}</u>	<u>0.7608544 ^{6/}</u>	
5	Additional revenue requirement (L3 / L4)	<u><u>(\$548)</u></u>	<u><u>(\$288,719)</u></u>	<u><u>(\$289,267)</u></u>

- 1/ Boswell Exhibit 1, Schedule 4, Line 1, Column (i).
2/ Boswell Exhibit 1, Schedule 4, Line 1, Column (e).
3/ Boswell Exhibit 1, Schedule 1-2, Line 10.
4/ Boswell Exhibit 1, Schedule 4, Line 2, Column (i).
5/ Boswell Exhibit 1, Schedule 4, Line 2, Column (e).
6/ Boswell Exhibit 1, Schedule 1-2, Line 14.
7/ Column (a) plus Column (b).

INDEX TO BOSWELL EXHIBIT 2

	<u>Title</u>	<u>Schedule Number</u>
1	CALCULATION OF LEVELIZED EDIT RIDER CREDIT	1
2	CALCULATION OF ANNUITY FACTOR FOR EDIT LIABILITY RIDER	1(a)

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF LEVELIZED EDIT RIDER CREDIT
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 2
Schedule 1

Line No.	Item	Year 1 Revenue Requirement (a)	Year 2 Revenue Requirement (b)	Total Revenue Requirement (c)
1	Total NC retail regulatory liability to be amortized	(\$256,026) ^{1/}	(\$256,026) ^{1/}	
2	Annuity factor	<u>1.8834 ^{2/}</u>	<u>1.8834 ^{2/}</u>	
3	Levelized rider EDIT regulatory liability (L1 / L2)	(135,938)	(135,938)	(\$271,876) ^{5/}
4	One minus composite income tax rate	<u>76.3381% ^{3/}</u>	<u>76.3381% ^{3/}</u>	<u>76.3381%</u>
5	Net operating income effect (L3 x L4)	(103,772)	(103,772)	(207,545)
6	Retention factor	<u>0.7608544 ^{4/}</u>	<u>0.7608544 ^{4/}</u>	<u>0.7608544</u>
7	Levelized rider EDIT credit (L5 / L6)	<u><u>(\$136,389)</u></u>	<u><u>(\$136,389)</u></u>	<u><u>(\$272,779)</u></u>

- 1/ McManeus Revised Supplemental Exhibit 1, Page 128, Line 5.
2/ Boswell Exhibit 2, Schedule 1(a), Line 6.
3/ One minus composite income tax rate of 23.6619%.
4/ Boswell Exhibit 1, Schedule 1-2, Line 14, Column (d).
5/ Column (a) plus Column (b).

DUKE ENERGY CAROLINAS, LLC
Docket No. E-7, Sub 1146
North Carolina Retail Operations
CALCULATION OF ANNUITY FACTOR FOR EDIT
LIABILITY RIDER
For the Test Year Ended December 31, 2016
(in Thousands)

Boswell Exhibit 2
Schedule 1(a)

Line No.	Item	Amount
	<u>Annuity Factor</u>	
1	Number of years	2 1/
2	Payment per period	1
3	After tax rate of return (L9)	6.294%
4	Present value of 1 dollar over number of years with with 1 payment per year	1.8259
5	1 plus (interest rate divided by two)	1.0315
6	Annuity factor (L4 x L5)	<u>1.8834</u>

	Capital Structure	Cost Rates	Overall Rate of Return	Net of Tax Rate
	(a)	(b)	(c)	(d)
	<u>After Tax Rate of Return</u>			
7	Long-term debt 50.00% 2/	4.570% 4/	2.285%	1.744% 7/
8	Common equity 50.00% 3/	9.100% 5/	4.550%	4.550% 8/
9	Total 100.00%		<u>6.835%</u>	<u>6.294%</u>

- 1/ Rider period recommended by Public Staff.
2/ Boswell Exhibit 1, Schedule 4, Line 1, Column (a).
3/ Boswell Exhibit 1, Schedule 4, Line 2, Column (a).
4/ Boswell Exhibit 1, Schedule 4, Line 1, Column (g).
5/ Boswell Exhibit 1, Schedule 4, Line 2, Column (g).
6/ Column (a) times Column (b).
7/ Column (c) times (1 minus combined income tax rate of 23.6619%).
8/ Amount from Column (c).