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May 15, 2019

**VIA ELECTRONIC FILING**

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

**RE: Duke Energy Carolinas, LLC's Second Supplemental Testimony in Fuel Charge Adjustment Proceeding**
**Docket No. E-7, Sub 1190**

Dear Ms. Jarvis:

Enclosed for filing with the North Carolina Utilities Commission are the Second Supplemental Testimony and Exhibits of Duke Energy Carolinas, LLC witness Kimberly D. McGee in the above referenced docket. I will deliver 15 copies to the Clerk's Office by close of business on May 16, 2019.

Please contact me if you have any questions.

Sincerely,

Jack E. Jirak

Enclosures

cc: Parties of Record

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 1190

| | | |
|---|---|---|
| In the Matter of<br>Application of Duke Energy Carolinas, LLC<br>Pursuant to G.S. 62-133.2 and NCUC Rule<br>R8-55 Relating to Fuel and Fuel-Related<br>Charge Adjustments for Electric Utilities | )<br>)<br>)<br>)<br>) | **SECOND SUPPLEMENTAL TESTIMONY OF KIMBERLY D. MCGEE FOR DUKE ENERGY CAROLINAS, LLC** |

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

A. My name is Kimberly D. McGee. My business address is 550 South Tryon Street, Charlotte, North Carolina.

**Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?**

A. Yes, on February 26, 2019, I caused to be pre-filed with the Commission my direct testimony and 6 exhibits and 14 supporting workpapers and on April 30, 2019, I caused to be pre-filed with the Commission my Supplemental testimony and 6 exhibits and 14 supporting workpapers.

**Q. YOUR SECOND SUPPLEMENTAL TESTIMONY INCLUDES 5 REVISED EXHIBITS. WERE THESE REVISED EXHIBITS AND WORKPAPERS PREPARED BY YOU OR AT YOUR DIRECTION AND UNDER YOUR SUPERVISION?**

A. Yes. These exhibits and workpapers were prepared by me and consist of the following:

McGee Revised Exhibit 1: Summary Comparison of Fuel and Fuel-Related Costs Factors.

McGee Revised Exhibit 2: Calculation of the Proposed Fuel and Fuel-Related Cost Factors.

McGee Revised Exhibit 3: Calculation of the Proposed Experience Modification Factor ("EMF") rate.

McGee Revised Exhibit 4: MWh Sales, Fuel Revenue, and Fuel and Fuel-Related Expense, as well as System Peak for the test period.

Revised McGee Exhibit 6 – December 2018 Monthly Fuel Reports.

**Q. WHAT IS THE PURPOSE OF YOUR SECOND SUPPLEMENTAL TESTIMONY IN THIS PROCEEDING?**

A. The purpose of my testimony is to present revised rates reflecting the correction of the (Over)/Under-Collection balance for the months of September 2018 – December 2018. The monthly fuel filing Schedule 4 had incorrectly used the total fuel factor, including the EMF component related to prior periods, in its calculation of monthly fuel revenues collected for purposes of determining (over)/under recovery of monthly fuel costs. The revised calculations properly exclude the EMF amounts billed related to prior periods from the computation of current month amounts. In order to mitigate the increase in customers' rates, the Company has also elected to withdraw their prior request (made in the first supplemental filing) to include the update period of January 2019 – March 2019.

**Q. HOW DID THE FUEL AND FUEL-RELATED COST RECOVERY BALANCE CHANGE DUE TO THE CORRECTION OF THE BILLING RATES FOR SEPTEMBER 2018 -DECEMBER 31, 2018 ON EXHIBIT 3?**

A. The under-collection balance as 12/31/2018 increased by $20.5 million.

**Q. WHAT IS THE RATE IMPACT OF THESE UPDATES?**

A. As a result of the two proposed changes – (1) correcting the September 2018 – December 2018 under-collection balance and (2) withdrawing the request to include the under-collection balance for the update period January 2019 – March 2019 – the NC Retail Total Fuel Costs were decreased by $ 8,946,290 from the amounts filed on April 30, 2019 in my Revised Exhibit 2, Schedule 1, page 3. The

components of the proposed fuel and fuel-related cost factors by customer class, as shown on Revised McGee Exhibit 1, are as follows:

| Description | Residential cents/kWh | General cents/kWh | Industrial cents/kWh | Composite cents/kWh |
|---|---|---|---|---|
| Total adjusted Fuel and Fuel Related Costs | 1.8126 | 1.9561 | 1.8934 | 1.8901 |
| EMF Increment (Decrement) | 0.1375 | 0.0927 | 0.2089 | 0.1346 |
| Net Fuel and Fuel Related Costs Factors | 1.9501 | 2.0488 | 2.1023 | 2.0247 |

**Q. WHAT IS THE IMPACT TO CUSTOMERS' BILLS IF THE REVISED PROPOSED FUEL AND FUEL-RELATED COSTS FACTORS ARE APPROVED BY THE COMMISSION?**

A. The revised proposed fuel and fuel-related costs factors will result in a 1.49% increase on customers' bills, as compared to the previously filed increase of 1.68%.

**Q. DOES THIS CONCLUDE YOUR PRE-FILED SECOND SUPPLEMENTAL TESTIMONY?**

A. Yes, it does.

**DUKE ENERGY CAROLINAS** **REVISED McGee Exhibit 1**

**North Carolina Annual Fuel and Fuel Related Expense**
**Summary Comparison of Fuel and Fuel Related Cost Factors**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Description | Reference | Residential cents/kWh | General cents/kWh | Industrial cents/kWh | Composite cents/kWh |
|---|---|---|---|---|---|---|
| | **Current Fuel and Fuel Related Cost Factors (Approved Fuel Rider Docket No. E-7, Sub 1163)** | | | | | |
| 1 | Approved Fuel and Fuel Related Costs Factors | Input | 1.7003 | 1.8314 | 1.8020 | 1.7769 |
| 2 | EMF Increment | Input | 0.0980 | 0.1068 | 0.2213 | 0.1290 |
| 3 | EMF Interest Decrement cents/kWh | Input | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 4 | Approved Net Fuel and Fuel Related Costs Factors | Sum | **1.7983** | **1.9382** | **2.0233** | **1.9059** |
| | **Fuel and Fuel Related Cost Factors Required by Rule R8-55** | | | | | |
| 5 | Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales | Exh 2 Sch 2 pg 2 | **1.9648** | **2.0622** | **2.1159** | **2.0393** |
| 6 | NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales | Exh 2 Sch 3 pg 2 | **1.9969** | **2.0829** | **2.1266** | **2.0613** |
| | **Proposed Fuel and Fuel Related Cost Factors using Proposed Nuclear Capacity Factor of 92.95%** | | | | | |
| 7 | Fuel and Fuel Related Costs excluding Purchased Capacity cents/kWh | Exh 2 Sch 1 pg 2 | 1.7643 | 1.9310 | 1.8726 | 1.8574 |
| 8 | REPS Compliance and QF Purchased Power - Capacity cents/kWh | Exh 2 Sch 1 pg 2 | 0.0483 | 0.0251 | 0.0208 | 0.0327 |
| 9 | Total adjusted Fuel and Fuel Related Costs cents/kWh | Sum | 1.8126 | 1.9561 | 1.8934 | 1.8901 |
| 10 | EMF Increment (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | 0.1375 | 0.0927 | 0.2089 | 0.1346 |
| 11 | EMF Interest (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| 12 | Net Fuel and Fuel Related Costs Factors cents/kWh | Sum | **1.9501** | **2.0488** | **2.1023** | **2.0247** |

Note: Fuel factors exclude regulatory fee

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Fuel and Fuel Related Cost Factors Using:**
**Proposed Nuclear Capacity Factor of 92.95%**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Unit | Reference | Generation (MWh) | Unit Cost (cents/kWh) | Fuel Cost ($) |
|---|---|---|---|---|---|
| | | | D | E | D * E = F |
| 1 | Total Nuclear | Workpaper 1 | 58,459,031 | 0.6115 | 357,497,468 |
| 2 | Coal | Workpaper 3 & 4 | 18,355,203 | 3.1057 | 570,050,837 |
| 3 | Gas CT and CC | Workpaper 3 & 4 | 20,821,617 | 2.4166 | 503,184,086 |
| 4 | Reagents and Byproducts | Workpaper 9 | | | 24,959,649 |
| 5 | Total Fossil | Sum | 39,176,820 | | 1,098,194,572 |
| 6 | Hydro | Workpaper 3 | 4,839,425 | | |
| 7 | Net Pumped Storage | Workpaper 3 | (3,874,211) | | |
| 8 | Total Hydro | Sum | 965,214 | | |
| 9 | Solar Distributed Generation | Workpaper 3 | 184,444 | | - |
| 10 | Total Generation | Line 1 + Line 5 + Line 8 + Line 9 | 98,785,509 | | 1,455,692,040 |
| 11 | Less Lee CC Joint Owners | Workpaper 3 & 4 | (878,400) | | (18,112,976) |
| 12 | Less Catawba Joint Owners | Workpaper 3 & 4 | (14,888,880) | | (91,061,695) |
| 13 | Net Generation | Sum Lines 10-12 | 83,018,229 | | 1,346,517,369 |
| 14 | Purchased Power | Workpaper 3 & 4 | 9,280,339 | 3.1771 | 294,841,746 |
| 15 | JDA Savings Shared | Workpaper 5 | | | 19,972,407 |
| 16 | Total Purchased Power | | 9,280,339 | | 314,814,153 |
| 17 | Total Generation and Purchased Power | Line 13 + Line 16 | 92,298,568 | 1.8000 | 1,661,331,522 |
| 18 | Fuel expense recovered through intersystem sales | Workpaper 3 & 4 | (687,755) | 2.4698 | (16,986,301) |
| 19 | Line losses and Company use | Line 21-Line 17-Line 18 | (4,366,969) | | - |
| 20 | System Fuel Expense for Fuel Factor | Lines 17 + 18 + 19 | | | 1,644,345,221 |
| 21 | Projected System MWh Sales for Fuel Factor | Workpaper 7 | 87,243,844 | | 87,243,844 |
| 22 | Fuel and Fuel Related Costs cents/kWh | Line 20 / Line 21 / 10 | | | 1.8848 |

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Fuel and Fuel Related Cost Factors Using:**
**Proposed Nuclear Capacity Factor of 92.95%**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Description | Reference | Residential | GS/Lighting | Industrial | Total |
|---|---|---|---|---|---|---|
| 1 | NC Projected Billing Period MWh Sales | Workpaper 7 | 21,397,068 | 23,381,644 | 12,939,285 | 57,717,997 |
| | **Calculation of Renewable and Cogeneration Purchased Power Capacity Rate by Class** | | | | | Amount |
| 2 | Purchased Power for REPS Compliance - Capacity | Workpaper 4 | | | | $ 13,295,654 |
| 3 | QF Purchased Power - Capacity | Workpaper 4 | | | | 14,874,084 |
| 4 | Total of Renewable and QF Purchased Power Capacity | Line 2 + Line 3 | | | | $ 28,169,738 |
| 5 | NC Portion - Jursidicational % based on Production Plant Allocator | Input | | | | 67.04% |
| 6 | NC Renewable and QF Purchased Power - Capacity | Line 4 * Line 5 | | | | $ 18,884,001 |
| 7 | Production Plant Allocation Factors | Input | 54.68% | 31.06% | 14.26% | 100.00% |
| 8 | Renewable and QF Purchased Power - Capacity allocated on Production Plant % | Line 6 * Line 7 | $ 10,325,952 | $ 5,864,785 | $ 2,693,265 | $ 18,884,001 |
| 9 | Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales | Line 8 / Line 1 / 10 | 0.0483 | 0.0251 | 0.0208 | 0.0327 |
| | **Summary of Total Rate by Class** | | | | | |
| 10 | Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh | Line 15 - Line 11 - Line 13 - Line 14 | 1.7643 | 1.9310 | 1.8726 | 1.8574 |
| 11 | REPS Compliance and QF Purchased Power - Capacity cents/kWh | Line 9 | 0.0483 | 0.0251 | 0.0208 | 0.0327 |
| 12 | Total adjusted Fuel and Fuel Related Costs cents/kWh | Line 10 + Line 11 | 1.8126 | 1.9561 | 1.8934 | 1.8901 |
| 13 | EMF Increment (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | 0.1375 | 0.0927 | 0.2089 | 0.1346 |
| 14 | EMF Interest (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | - | - | - | - |
| 15 | Net Fuel and Fuel Related Costs Factors cents/kWh | Exh 2 Sch 1 Page 3 | 1.9501 | 2.0488 | 2.1023 | 2.0247 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Uniform Percentage Average Bill Adjustment by Customer Class**
**Proposed Nuclear Capacity Factor of 92.95%**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Rate Class | Projected Billing Period MWh Sales | Annual Revenue at Current rates | Allocate Fuel Costs Increase/(Decrease) to Customer Class | Increase/(Decrease) as % of Annual Revenue at Current Rates | Total Fuel Rate Increase/(Decrease) | Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 | Proposed Total Fuel Rate (including Capacity and EMF) |
|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G |
| | | Workpaper 7 | Workpaper 8 | Line 25 as a % of Column B | C / B | If D=0 then 0 if not then (C*100)/(A*1000) | McGee Exhibit 1 | E + F = G |
| 1 | Residential | 21,397,068 | $ 2,183,285,633 | $ 32,481,139 | 1.49% | 0.1518 | 1.7983 | 1.9501 |
| 2 | General Service/Lighting | 23,381,644 | 1,738,716,194 | 25,867,199 | 1.49% | 0.1106 | 1.9382 | 2.0488 |
| 3 | Industrial | 12,939,285 | 687,001,167 | 10,220,642 | 1.49% | 0.0790 | 2.0233 | 2.1023 |
| 4 | NC Retail | 57,717,997 | $ 4,609,002,994 | $ 68,568,980 | 1.49% | | | |

**Total Proposed Composite Fuel Rate:**

| | | | |
|---|---|---|---|
| 5 | Total Fuel Costs for Allocation | Workpaper 7 | $ 1,648,542,239 |
| 6 | Total of Renewable and QF Purchased Power Capacity | Exhibit 2 Sch 1, Page 2 | 28,169,738 |
| 7 | System Other Fuel Costs | Line 5 - Line 6 | $ 1,620,372,501 |
| 8 | Adjusted Projected System MWh Sales for Fuel Factor | Workpaper 7 | 87,243,844 |
| 9 | NC Retail Projected Billing Period MWh Sales | Line 4 | 57,717,997 |
| 10 | Allocation % | Line 9 / Line 8 | 66.16% |
| 11 | NC Retail Other Fuel Costs | Line 7 * Line 10 | $ 1,072,038,447 |
| 12 | NC Renewable and QF Purchased Power - Capacity | Exhibit 2 Sch 1, Page 2 | 18,884,001 |
| 13 | NC Retail Total Fuel Costs | Line 11 + Line 12 | $ 1,090,922,448 |
| 14 | NC Retail Projected Billing Period MWh Sales | Line 4 | 57,717,997 |
| 15 | Calculated Fuel Rate cents/kWh | Line 13 / Line 14 / 10 | 1.8901 |
| 16 | Proposed Composite EMF Rate cents/kWh | Exhibit 3 Page 1 | 0.1346 |
| 17 | Proposed Composite EMF Rate Interest cents/kWh | Exhibit 3 Page 1 | 0.0000 |
| 18 | Total Proposed Composite Fuel Rate | Sum | 2.0247 |

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

| | | | |
|---|---|---|---|
| 19 | Current composite Fuel Rate cents/kWh | McGee Exhibit 1 | 1.7769 |
| 20 | Current composite EMF Rate cents/kWh | McGee Exhibit 1 | 0.1290 |
| 21 | Current composite EMF Interest Rate cents/kWh | McGee Exhibit 1 | 0.0000 |
| 22 | Total Current Composite Fuel Rate | Sum | 1.9059 |
| 23 | Increase/(Decrease) in Composite Fuel rate cents/kWh | Line 18 - Line 22 | 0.1188 |
| 24 | NC Retail Projected Billing Period MWh Sales | Line 4 | 57,717,997 |
| 25 | Increase/(Decrease) in Fuel Costs | Line 23 * Line 24 * 10 | $ 68,568,980 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS** — **McGee Exhibit 2**
**North Carolina Annual Fuel and Fuel Related Expense** — **Schedule 2**
**Calculation of Fuel and Fuel Related Cost Factors Using:** — **Page 1 of 3**
**Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Unit | Reference | Generation (MWh) | Unit Cost (cents/kWh) | Fuel Cost ($) |
|---|---|---|---|---|---|
| | | | D | E | D * E = F |
| 1 | Total Nuclear | Workpaper 1 | 58,459,031 | 0.6115 | 357,497,468 |
| 2 | Coal | Calculated | 19,611,529 | 3.1057 | 609,068,093 |
| 3 | Gas CT and CC | Workpaper 3 & 4 | 20,821,617 | 2.4166 | 503,184,086 |
| 4 | Reagents and Byproducts | Workpaper 9 | - | | 24,959,649 |
| 5 | Total Fossil | Sum | 40,433,146 | | 1,137,211,828 |
| 6 | Hydro | Workpaper 3 | 4,839,425 | | |
| 7 | Net Pumped Storage | Workpaper 3 | (3,874,211) | | |
| 8 | Total Hydro | Sum | 965,214 | | |
| 9 | Solar Distributed Generation | | 184,444 | | |
| 10 | Total Generation | Line 1 + Line 5 + Line 8 + Line 9 | 100,041,835 | | 1,494,709,296 |
| 11 | Less Lee CC Joint Owners | Workpaper 3 & 4 | (878,400) | | (18,112,976) |
| 12 | Less Catawba Joint Owners | Workpaper 3 & 4 | (14,888,880) | | (91,061,695) |
| 13 | Net Generation | Sum | 84,274,555 | | 1,385,534,625 |
| 14 | Purchased Power | Workpaper 3 & 4 | 9,280,339 | | 294,841,746 |
| 15 | JDA Savings Shared | Workpaper 5 | - | | 19,972,407 |
| 16 | Total Purchased Power | Sum | 9,280,339 | | 314,814,153 |
| 17 | Total Generation and Purchased Power | Line 13 + Line 16 | 93,554,894 | | 1,700,348,778 |
| 18 | Fuel expense recovered through intersystem sales | Workpaper 3 & 4 | (687,755) | | (16,986,301) |
| 19 | Line losses and Company use | | (4,366,969) | | - |
| 20 | System Fuel Expense for Fuel Factor | Lines 17 + 18 + 19 | | | 1,683,362,477 |
| 21 | Normalized Test Period MWh Sales | Exhibit 4 | 88,500,170 | | 88,500,170 |
| 22 | Fuel and Fuel Related Costs cents/kWh | Line 20 / Line 21 / 10 | | | 1.9021 |

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Fuel and Fuel Related Cost Factors Using:**
**Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Description | Reference | Residential | GS/Lighting | Industrial | Total |
|---|---|---|---|---|---|---|
| 1 | NC Normalized Test Period MWh Sales | Exhibit 4 | 22,043,791 | 23,564,462 | 12,465,801 | 58,074,054 |
| | **Calculation of Renewable Purchased Power Capacity Rate by Class** | | | | | Amount |
| 2 | Purchased Power for REPS Compliance - Capacity | Workpaper 4 | | | | $ 13,295,654 |
| 3 | QF Purchased Power - Capacity | Workpaper 4 | | | | 14,874,084 |
| 4 | Total of Renewable and QF Purchased Power Capacity | Line 2 + Line 3 | | | | $ 28,169,738 |
| 5 | NC Portion - Jursidicational % based on Production Plant Allocator | Input | | | | 67.04% |
| 6 | NC Renewable and QF Purchased Power - Capacity | Line 4 * Line 5 | | | | $ 18,884,001 |
| 7 | Production Plant Allocation Factors | Input | 54.68% | 31.06% | 14.26% | 100.00% |
| 8 | Renewable and QF Purchased Power - Capacity allocated on Production Plant % | Line 6 * Line 7 | $ 10,325,952 | $ 5,864,785 | $ 2,693,265 | $ 18,884,001 |
| 9 | Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales | Line 8 / Line 1 / 10 | 0.0468 | 0.0249 | 0.0216 | 0.0325 |
| | **Summary of Total Rate by Class** | | | | | |
| 10 | Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh | Line 15 - Line 11 - Line 13 - Line 14 | 1.7805 | 1.9446 | 1.8854 | 1.8722 |
| 11 | REPS Compliance and QF Purchased Power - Capacity cents/kWh | Line 9 | 0.0468 | 0.0249 | 0.0216 | 0.0325 |
| 12 | Total adjusted Fuel and Fuel Related Costs cents/kWh | Line 10 + Line 11 | 1.8273 | 1.9695 | 1.9070 | 1.9047 |
| 13 | EMF Increment (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | 0.1375 | 0.0927 | 0.2089 | 0.1346 |
| 14 | EMF Interest (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | - | - | - | - |
| 15 | Net Fuel and Fuel Related Costs Factors cents/kWh | Exh 2 Sch 2 Page 3 | 1.9648 | 2.0622 | 2.1159 | 2.0393 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Uniform Percentage Average Bill Adjustment by Customer Class**
**Proposed Nuclear Capacity Factor of 92.95% and Normalized Test Period Sales**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Rate Class | Normalized Test Period MWh Sales | Annual Revenue at Current rates | Allocate Fuel Costs Increase/(Decrease) to Customer Class | Increase/(Decrease) as % of Annual Revenue at Current Rates | Total Fuel Rate Increase/(Decrease) | Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 | Proposed Total Fuel Rate (including Capacity and EMF) |
|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G |
| | | Exhibit 4 | Workpaper 8 | Line 25 as a % of Column B | C / B | If D=0 then 0 if not then (C*100)/(A*1000) | McGee Exhibit 1 | E + F = G |
| 1 | Residential | 22,043,791 | $ 2,183,285,633 | $ 36,697,928 | 1.68% | 0.1665 | 1.7983 | 1.9648 |
| 2 | General Service/Lighting | 23,564,462 | $ 1,738,716,194 | 29,225,347 | 1.68% | 0.1240 | 1.9382 | 2.0622 |
| 3 | Industrial | 12,465,801 | $ 687,001,167 | 11,547,513 | 1.68% | 0.0926 | 2.0233 | 2.1159 |
| 4 | NC Retail | 58,074,054 | $ 4,609,002,994 | $ 77,470,788 | | | | |

**Total Proposed Composite Fuel Rate:**

| | | | |
|---|---|---|---|
| 5 | Total Fuel Costs for Allocation | Workpaper 7a | $ 1,687,559,495 |
| 6 | Total of Renewable and QF Purchased Power Capacity | Exhibit 2 Sch 2, Page 2 | 28,169,738 |
| 7 | System Other Fuel Costs | Line 5 - Line 6 | $ 1,659,389,757 |
| 8 | Normalized Test Period System MWh Sales for Fuel Factor | Workpaper 7a | 88,629,309 |
| 9 | NC Retail Normalized Test Period MWh Sales | Exhibit 4 | 58,074,054 |
| 10 | Allocation % | Line 9 / Line 8 | 65.52% |
| 11 | NC Retail Other Fuel Costs | Line 7 * Line 10 | $ 1,087,232,168 |
| 12 | NC Renewable and QF Purchased Power - Capacity | Exhibit 2 Sch 2, Page 2 | 18,884,001 |
| 13 | NC Retail Total Fuel Costs | Line 11 + Line 12 | $ 1,106,116,170 |
| 14 | NC Retail Normalized Test Period MWh Sales | Line 4 | 58,074,054 |
| 15 | Calculated Fuel Rate cents/kWh | Line 13 / Line 14 / 10 | 1.9047 |
| 16 | Proposed Composite EMF Rate cents/kWh | Exhibit 3 Page 1 | 0.1346 |
| 17 | Proposed Composite EMF Rate Interest cents/kWh | Exhibit 3 Page 1 | 0.0000 |
| 18 | Total Proposed Composite Fuel Rate | Sum | 2.0393 |

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

| | | | |
|---|---|---|---|
| 19 | Current composite Fuel Rate cents/kWh | McGee Exhibit 1 | 1.7769 |
| 20 | Current composite EMF Rate cents/kWh | McGee Exhibit 1 | 0.1290 |
| 21 | Current composite EMF Interest Rate cents/kWh | McGee Exhibit 1 | 0.0000 |
| 22 | Total Current Composite Fuel Rate | Sum | 1.9059 |
| 23 | Increase/(Decrease) in Composite Fuel rate cents/kWh | Line 18 - Line 22 | 0.1334 |
| 24 | NC Retail Normalized Test Period MWh Sales | Exhibit 4 | 58,074,054 |
| 25 | Increase/(Decrease) in Fuel Costs | Line 23 * Line 24 * 10 | $ 77,470,788 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS** | **McGee Exhibit 2**
**North Carolina Annual Fuel and Fuel Related Expense** | **Schedule 3**
**NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales** | **Page 1 of 3**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Unit | Reference | Generation (MWh) | Unit Cost (cents/kWh) | Fuel Cost ($) |
|---|---|---|---|---|---|
| | | | D | E | D * E = F |
| 1 | Total Nuclear | Workpaper 2 | 56,739,499 | 0.6115 | 346,981,926 |
| 2 | Coal | Calculated | 19,636,789 | 3.1057 | 609,852,590 |
| 3 | Gas CT and CC | Workpaper 3 & 4 | 20,821,617 | 2.4166 | 503,184,086 |
| 4 | Reagents and Byproducts | Workpaper 9 | - | | 24,959,649 |
| 5 | Total Fossil | Sum | 40,458,406 | | 1,137,996,325 |
| 6 | Hydro | Workpaper 3 | 4,839,425 | | |
| 7 | Net Pumped Storage | Workpaper 3 | (3,874,211) | | |
| 8 | Total Hydro | Sum | 965,214 | | |
| 9 | Solar Distributed Generation | Workpaper 3 | 184,444 | | |
| 10 | Total Generation | Line 1 + Line 5 + Line 8 + Line 9 | 98,347,563 | | 1,484,978,251 |
| 11 | Less Lee CC Joint Owners | Workpaper 3 & 4 | (878,400) | | (18,112,976) |
| 12 | Less Catawba Joint Owners | Calculated | (14,450,934) | | (88,383,179) |
| 13 | Net Generation | Sum | 83,018,229 | | 1,378,482,097 |
| 14 | Purchased Power | Workpaper 3 & 4 | 9,280,339 | | 294,841,746 |
| 15 | JDA Savings Shared | Workpaper 5 | - | | 19,972,407 |
| 16 | Total Purchased Power | Sum | 9,280,339 | | 314,814,153 |
| 17 | Total Generation and Purchased Power | Line 13 + Line 16 | 92,298,568 | | 1,693,296,250 |
| 18 | Fuel expense recovered through intersystem sales | Workpaper 3 & 4 | (687,755) | | (16,986,301) |
| 19 | Line losses and Company use | | (4,366,969) | | - |
| 20 | System Fuel Expense for Fuel Factor | Lines 17 + 18 + 19 | | | 1,676,309,949 |
| 21 | Projected System MWh Sales for Fuel Factor | Workpaper 7b | 87,243,844 | | 87,243,844 |
| 22 | Fuel and Fuel Related Costs cents/kWh | Line 20 / Line 21 / 10 | | | 1.9214 |

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Fuel and Fuel Related Cost Factors Using:**
**NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Description | Reference | Residential | GS/Lighting | Industrial | Total |
|---|---|---|---|---|---|---|
| 1 | NC Projected Billing Period MWh Sales | Workpaper 7b | 21,397,068 | 23,381,644 | 12,939,285 | 57,717,997 |
| | **Calculation of Renewable Purchased Power Capacity Rate by Class** | | | | | Amount |
| 2 | Purchased Power for REPS Compliance - Capacity | Workpaper 4 | | | | $ 13,295,654 |
| 3 | QF Purchased Power - Capacity | Workpaper 4 | | | | $ 14,874,084 |
| 4 | Total of Renewable and QF Purchased Power Capacity | Line 2 + Line 3 | | | | $ 28,169,738 |
| 5 | NC Portion - Jursidicational % based on Production Plant Allocator | Input | | | | 67.04% |
| 6 | NC Renewable and QF Purchased Power - Capacity | Line 4 * Line 5 | | | | $ 18,884,001 |
| 7 | Production Plant Allocation Factors | Input | 54.68% | 31.06% | 14.26% | 100.00% |
| 8 | Renewable and QF Purchased Power - Capacity allocated on Production Plant % | Line 6 * Line 7 | $ 10,325,952 | $ 5,864,785 | $ 2,693,265 | $ 18,884,001 |
| 9 | Renewable and QF Purchased Power - Capacity cents/kWh based on Projected Billing Period Sales | Line 8 / Line 1 / 10 | 0.0483 | 0.0251 | 0.0208 | 0.0327 |
| | **Summary of Total Rate by Class** | | | | | |
| 10 | Fuel and Fuel Related Costs excluding Purchased Power for REPS Compliance and QF Purchased Capacity cents/kWh | Line 15 - Line 11 - Line 13 - Line 14 | 1.8111 | 1.9651 | 1.8969 | 1.8940 |
| 11 | REPS Compliance and QF Purchased Power - Capacity cents/kWh | Line 9 | 0.0483 | 0.0251 | 0.0208 | 0.0327 |
| 12 | Total adjusted Fuel and Fuel Related Costs cents/kWh | Line 10 + Line 11 | 1.8594 | 1.9902 | 1.9177 | 1.9267 |
| 13 | EMF Increment (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | 0.1375 | 0.0927 | 0.2089 | 0.1346 |
| 14 | EMF Interest (Decrement) cents/kWh | Exh 3 pg 2, 3, 4 | - | - | - | - |
| 15 | Net Fuel and Fuel Related Costs Factors cents/kWh | Exh 2 Sch 3 Page 3 | 1.9969 | 2.0829 | 2.1266 | 2.0613 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Uniform Percentage Average Bill Adjustment by Customer Class**
**NERC 5 Year Average Nuclear Capacity Factor of 90.21% and Projected Period Sales**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line # | Rate Class | Projected Billing Period MWh Sales | Annual Revenue at Current rates | Allocate Fuel Costs Increase/(Decrease) to Customer Class | Increase/Decrease as % of Annual Revenue at Current Rates | Total Fuel Rate Increase/(Decrease) | Current Total Fuel Rate (including Capacity and EMF) E-7, Sub 1163 | Proposed Total Fuel Rate (including Capacity and EMF) |
|---|---|---|---|---|---|---|---|---|
| | | A | B | C | C / B = D | E | F | G |
| | | Workpaper 7b | Workpaper 8 | Line 25 as a % of Column B | C / B | If D=0 then 0 if not then (C*100)/(A*1000) | McGee Exhibit 1 | E + F = G |
| 1 | Residential | 21,397,068 | $ 2,183,285,633 | $ 42,487,955 | 1.95% | 0.1986 | 1.7983 | 1.9969 |
| 2 | General Service/Lighting | 23,381,644 | $ 1,738,716,194 | $ 33,836,386 | 1.95% | 0.1447 | 1.9382 | 2.0829 |
| 3 | Industrial | 12,939,285 | $ 687,001,167 | $ 13,369,426 | 1.95% | 0.1033 | 2.0233 | 2.1266 |
| 4 | NC Retail | 57,717,997 | $ 4,609,002,994 | $ 89,693,767 | | | | |

**Total Proposed Composite Fuel Rate:**

| | | | | |
|---|---|---|---|---|
| 5 | Total Fuel Costs for Allocation | Workpaper 7b | $ | 1,680,506,966 |
| 6 | Total of Renewable and QF Purchased Power Capacity | Exhibit 2 Sch 3, Page 2 | | 28,169,738 |
| 7 | System Other Fuel Costs | Line 5 - Line 6 | $ | 1,652,337,228 |
| 8 | Adjusted Projected System MWh Sales for Fuel Factor | Workpaper 7b | | 87,243,844 |
| 9 | NC Retail Projected Billing Period MWh Sales | Line 4 | | 57,717,997 |
| 10 | Allocation % | Line 9 / Line 8 | | 66.16% |
| 11 | NC Retail Other Fuel Costs | Line 7 * Line 10 | $ | 1,093,186,310 |
| 12 | NC Renewable and QF Purchased Power - Capacity | Exhibit 2 Sch 3, Page 2 | | 18,884,001 |
| 13 | NC Retail Total Fuel Costs | Line 11 + Line 12 | $ | 1,112,070,311 |
| 14 | NC Retail Projected Billing Period MWh Sales | Line 4 | | 57,717,997 |
| 15 | Calculated Fuel Rate cents/kWh | Line 13 / Line 14 / 10 | | 1.9267 |
| 16 | Proposed Composite EMF Rate cents/kWh | Exhibit 3 Page 1 | | 0.1346 |
| 17 | Proposed Composite EMF Rate Interest cents/kWh | Exhibit 3 Page 1 | | 0.0000 |
| 18 | Total Proposed Composite Fuel Rate | Sum | | 2.0613 |

**Total Current Composite Fuel Rate - Docket E-7 Sub 1163:**

| | | | |
|---|---|---|---|
| 19 | Current composite Fuel Rate cents/kWh | McGee Exhibit 1 | 1.7769 |
| 20 | Current composite EMF Rate cents/kWh | McGee Exhibit 1 | 0.1290 |
| 21 | Current composite EMF Interest Rate cents/kWh | McGee Exhibit 1 | 0.0000 |
| 22 | Total Current Composite Fuel Rate | Sum | 1.9059 |
| 23 | Increase/(Decrease) in Composite Fuel rate cents/kWh | Line 18 - Line 22 | 0.1554 |
| 24 | NC Retail Projected Billing Period MWh Sales | Line 4 | 57,717,997 |
| 25 | Increase/(Decrease) in Fuel Costs | Line 23 * Line 24 * 10 | $ 89,693,767 |

Note: Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Experience Modification Factor - Proposed Composite**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**



| Line No. | Month | Fuel Cost Incurred ¢/kWh (a) | Fuel Cost Billed ¢/kWh (b) | NC Retail MWh Sales (c) | | Reported (Over)/ Under Recovery (d) |
|---|---|---|---|---|---|---|
| 1 | January 2018 | | | 5,733,820 | $ | 70,210,460 |
| 2 | February | | | 5,031,181 | $ | (21,289,748) |
| 3 | March(1) | | | 4,190,094 | $ | 4,767,793 |
| 4 | April(1) | | | 4,416,566 | $ | (13,736,437) |
| 5 | May | | | 4,252,750 | $ | 6,136,829 |
| 6 | June(1) | | | 5,245,689 | $ | 6,622,242 |
| 7 | July(1) | | | 5,639,361 | $ | 14,497,484 |
| 8 | August | | | 5,409,821 | $ | 13,507,110 |
| 9 | September | | | 6,212,764 | $ | (5,592,874) |
| 10 | October | | | 4,141,212 | $ | 16,417,033 |
| 11 | November | | | 4,314,713 | $ | 17,477,682 |
| 12 | December | | | 4,892,732 | $ | 22,827,662 |
| 13 | **Total Test Period** | | | **59,480,703** | **$** | **131,845,236** |
| 14 | Adjustment to remove (Over) / Under Recovery - January - March 2018 [2] | | | | $ | 53,688,503 |
| 15 | Include Under Recovery related to Coal Inventory Rider | | | | $ | 37,667 |
| 16 | **Adjusted (Over)/ Under Recovery** | | | | **$** | **78,194,400** |
| 17 | NC Retail Normalized Test Period MWh Sales | | | Exhibit 4 | | 58,074,054 |
| 18 | Experience Modification Increment (Decrement) cents/kWh | | | | | 0.1346 |

[1] Prior period corrections not included in rate incurred but are included in over/(under) recovery total
[2] January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.
Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 16.
Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Experience Modification Factor - Residential**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Month | Fuel Cost Incurred ¢/kWh (a) | Fuel Cost Billed ¢/kWh (b) | NC Retail MWH Sales (c) | Reported (Over)/ Under Recovery (d) |
|---|---|---|---|---|---|
| 1 | January 2018 | 2.2454 | 1.7919 | 2,747,953 | $ 12,463,615 |
| 2 | February | 1.2214 | 1.7919 | 2,101,525 | $ (11,989,284) |
| 3 | March[(1)] | 1.8936 | 1.7919 | 1,546,024 | $ 1,587,096 |
| 4 | April[(1)] | 1.5682 | 1.7919 | 1,557,073 | $ (3,469,659) |
| 5 | May | 2.2261 | 1.7919 | 1,361,386 | $ 5,910,833 |
| 6 | June[(1)] | 1.9042 | 1.7919 | 1,940,879 | $ 2,162,126 |
| 7 | July[(1)] | 1.9028 | 1.7919 | 2,227,922 | $ 2,375,059 |
| 8 | August | 1.9776 | 1.7885 | 2,050,040 | $ 3,875,805 |
| 9 | September | 1.7474 | 1.7477 | 2,200,376 | $ (6,784) |
| 10 | October | 2.0726 | 1.7004 | 1,554,551 | $ 5,784,976 |
| 11 | November | 2.3435 | 1.7003 | 1,436,836 | $ 9,241,689 |
| 12 | December | 1.9167 | 1.7003 | 2,038,462 | $ 4,411,281 |
| 13 | **Total Test Period** | | | **22,763,029** | **$ 32,346,754** |
| 14 | Test Period Wtd Avg. ¢/kWh | 1.9096 | 1.7671 | | |
| 15 | Adjustment to remove (Over) / Under Recovery - January - March 2018 [(2)] | | | | $ 2,061,427 |
| 16 | Include Under Recovery related to Coal Inventory Rider | | | | $ 14,415 |
| 17 | **Adjusted (Over)/Under Recovery** | | | | **$ 30,299,742** |
| 18 | NC Retail Normalized Test Period MWh Sales | | | Exhibit 4 | 22,043,791 |
| 19 | Experience Modification Increment (Decrement) cents/kWh | | | | 0.1375 |

**Notes:**
[(1)] Prior period corrections not included in rate incurred but are included in over/(under) recovery total
[(2)] January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.
Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.
Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Experience Modification Factor - GS/Lighting**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Month | Fuel Cost Incurred ¢/kWh (a) | Fuel Cost Billed ¢/kWh (b) | NC Retail MWh Sales (c) | | Reported (Over)/ Under Recovery (d) |
|---|---|---|---|---|---|---|
| 1 | January 2018 | 3.5376 | 1.9253 | 2,053,224 | $ | 33,104,497 |
| 2 | February | 1.5865 | 1.9253 | 1,899,154 | $ | (6,434,005) |
| 3 | March[(1)] | 2.0122 | 1.9253 | 1,709,988 | $ | 1,503,768 |
| 4 | April[(1)] | 1.5762 | 1.9253 | 1,819,014 | $ | (6,335,002) |
| 5 | May | 1.9140 | 1.9253 | 1,860,965 | $ | (210,465) |
| 6 | June[(1)] | 1.9786 | 1.9253 | 2,190,371 | $ | 1,145,088 |
| 7 | July[(1)] | 2.1543 | 1.9253 | 2,291,796 | $ | 5,295,453 |
| 8 | August | 2.1026 | 1.9219 | 2,244,902 | $ | 4,054,944 |
| 9 | September | 1.6846 | 1.8801 | 2,660,685 | $ | (5,202,149) |
| 10 | October | 2.1707 | 1.8315 | 1,727,851 | $ | 5,860,345 |
| 11 | November | 2.1580 | 1.8314 | 1,824,017 | $ | 5,957,400 |
| 12 | December | 2.4310 | 1.8314 | 1,880,041 | $ | 11,272,678 |
| 13 | **Total Test Period** | | | **24,162,007** | **$** | **50,012,553** |
| 14 | Test Period Wtd Avg. ¢/kWh | 2.1057 | 1.8989 | | | |
| 15 | Adjustment remove (Over) / Under Recovery - January - March 2018 [(2)] | | | | $ | 28,174,260 |
| 16 | Include Under Recovery related to Coal Inventory Rider | | | | $ | 15,301 |
| 17 | **Adjusted (Over)/ Under Recovery** | | | | **$** | **21,853,594** |
| 18 | NC Retail Normalized Test Period MWh Sales | | | Exhibit 4 | | 23,564,462 |
| 19 | Experience Modification Increment (Decrement) cents/kWh | | | | | 0.0927 |

**Notes:**
[(1)] Prior period corrections not included in rate incurred but are included in over/(under) recovery total
[(2)] January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.
Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.
Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Calculation of Experience Modification Factor - Industrial**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

| Line # | Month | Fuel Cost Incurred ¢/kWh (a) | Fuel Cost Billed ¢/kWh (b) | NC Retail MWh Sales (c) | | Reported (Over)/ Under Recovery (d) |
|---|---|---|---|---|---|---|
| 1 | January 2018 | 4.6719 | 2.0297 | 932,643 | $ | 24,642,348 |
| 2 | February | 1.7515 | 2.0297 | 1,030,502 | $ | (2,866,460) |
| 3 | March[(1)] | 2.2081 | 2.0297 | 934,082 | $ | 1,676,929 |
| 4 | April[(1)] | 1.6509 | 2.0297 | 1,040,479 | $ | (3,931,775) |
| 5 | May | 2.0721 | 2.0297 | 1,030,399 | $ | 436,461 |
| 6 | June[(1)] | 2.3283 | 2.0297 | 1,114,438 | $ | 3,315,028 |
| 7 | July[(1)] | 2.6319 | 2.0297 | 1,119,643 | $ | 6,826,972 |
| 8 | August | 2.5265 | 2.0263 | 1,114,879 | $ | 5,576,360 |
| 9 | September | 1.8991 | 1.9275 | 1,351,703 | $ | (383,942) |
| 10 | October | 2.3580 | 1.8024 | 858,810 | $ | 4,771,711 |
| 11 | November | 2.0182 | 1.8020 | 1,053,860 | $ | 2,278,593 |
| 12 | December | 2.5353 | 1.8020 | 974,229 | $ | 7,143,703 |
| 13 | **Total Test Period** | | | **12,555,667** | **$** | **49,485,928** |
| 14 | Test Period Wtd Avg. ¢/kWh | 2.3595 | 1.9661 | | | |
| 15 | Adjustment to remove (Over) / Under Recovery - January - March 2018 [(2)] | | | | $ | 23,452,816 |
| 16 | Include Under Recovery related to Coal Inventory Rider | | | | $ | 7,951 |
| 17 | **Adjusted (Over)/ Under Recovery** | | | | **$** | **26,041,062** |
| 18 | NC Retail Normalized Test Period MWh Sales | | Exhibit 4 | | | 12,465,801 |
| 19 | Experience Modification Increment (Decrement) cents/KWh | | | | | 0.2089 |

**Notes:**
[(1)] Prior period corrections not included in rate incurred but are included in over/(under) recovery total
[(2)] January - March 2018 filed in fuel Docket E-7, Sub 1163 to update the EMF and included in current EMF rate.
Included for Commission review in accordance with NC Rule R8-55 (d)(3) but deducted from total (O)/ U on Line 17.
Rounding differences may occur

**DUKE ENERGY CAROLINAS**
**North Carolina Annual Fuel and Fuel Related Expense**
**Sales, Fuel Revenue, Fuel Expense and System Peak**
**Test Period Ended December 31, 2018**
**Billing Period September 2019 - August 2020**
**Docket E-7, Sub 1190**

**Revised McGee Exhibit 4**

| Line # | Description | Reference | Total Company | North Carolina Retail | North Carolina Residential | North Carolina General Service/Lighting | North Carolina Industrial |
|---|---|---|---|---|---|---|---|
| 1 | Test Period MWh Sales (excluding inter system sales) | Exhibit 6 Schedule 1 (Line 4) and Workpaper 11 (NC retail) | 90,487,628 | 59,480,703 | 22,763,029 | 24,162,007 | 12,555,667 |
| 2 | Customer Growth MWh Adjustment | Workpaper 13 Pg 1 | 419,697 | 242,974 | 188,587 | 39,238 | 15,149 |
| 3 | Weather MWh Adjustment | Workpaper 12 | (2,407,155) | (1,649,623) | (907,825) | (636,783) | (105,015) |
| 4 | Total Normalized MWh Sales | Sum | 88,500,170 | 58,074,054 | 22,043,791 | 23,564,462 | 12,465,801 |
| 5 | Test Period Fuel and Fuel Related Revenue * | | $ 1,670,560,911 | $ 1,107,911,215 | | | |
| 6 | Test Period Fuel and Fuel Related Expense * | | $ 1,852,283,575 | $ 1,239,756,450 | | | |
| 7 | Test Period Unadjusted (Over)/Under Recovery | | $ 181,722,664 | $ 131,845,236 | | | |

| | | Winter Coincidental Peak (CP) kW |
|---|---|---|
| 8 | Total System Peak | 18,875,799 |
| 9 | NC Retail Peak | 12,650,981 |
| 10 | NC Residential Peak | 6,917,677 |
| 11 | NC General Service/Lighting Peak | 3,929,002 |
| 12 | NC Industrial Peak | 1,804,302 |

* Total Company Fuel and Fuel Related Revenue and Fuel and Fuel Related Expense are determined based upon the fuel and fuel related cost recovery mechanisms in each of the company's jurisdictions.

**DUKE ENERGY CAROLINAS** **McGee Exhibit 5**

**North Carolina Annual Fuel and Fuel Related Expense**

**Nuclear Capacity Ratings**

**Test Period Ended December 31, 2018**

**Billing Period September 2019 - August 2020**

**Docket E-7, Sub 1190**



| Unit | Rate Case Docket E-7, Sub 1146 | Fuel Docket E-7, Sub 1163 | Proposed Capacity Rating MW |
|---|---|---|---|
| Oconee Unit 1 | 847 | 847.0 | 847.0 |
| Oconee Unit 2 | 848 | 848.0 | 848.0 |
| Oconee Unit 3 | 859 | 859.0 | 859.0 |
| McGuire Unit 1 | 1,158 | 1158.0 | 1158.0 |
| McGuire Unit 2 | 1,158 | 1157.6 | 1157.6 |
| Catawba Unit 1 | 1,160 | 1160.1 | 1160.1 |
| Catawba Unit 2 | 1,150 | 1150.1 | 1150.1 |
| Total Company | 7,180 | 7,179.8 | 7,179.8 |

Revised McGee Exhibit 6



# DECEMBER 2018 MONTHLY FUEL FILING

**Revised McGee Exhibit 6**
REVISED
Schedule 1



DUKE ENERGY CAROLINAS
SUMMARY OF MONTHLY FUEL REPORT

Docket No. E-7, Sub 1161

| Line No. | | December 2018 | 12 Months Ended December 2018 |
|---|---|---|---|
| 1 | Fuel and fuel-related costs | $ 167,457,560 | $ 1,885,269,343 |
| | MWH sales: | | |
| 2 | Total system sales | 7,718,637 | 92,433,072 |
| 3 | Less intersystem sales | 228,210 | 1,945,444 |
| 4 | Total sales less intersystem sales | 7,490,427 | 90,487,628 |
| 5 | Total fuel and fuel-related costs (¢/KWH) (line 1/line 4) | 2.2356 | 2.0835 |
| 6 | Current fuel and fuel-related cost component (¢/KWH) (per Schedule 4, Line 2a Total) | 1.7709 | |
| | Generation Mix (MWH): | | |
| | Fossil (by primary fuel type): | | |
| 7 | Coal | 1,366,724 | 22,653,740 |
| 8 | Fuel Oil | 12,042 | 232,515 |
| 9 | Natural Gas - Combined Cycle | 1,059,332 | 13,695,555 |
| 10 | Natural Gas - Combustion Turbine | 42,178 | 2,550,671 |
| 11 | Natural Gas - Steam | 127,536 | 187,574 |
| 12 | Biogas | 3,259 | 30,204 |
| 13 | Total fossil | 2,611,071 | 39,350,259 |
| 14 | Nuclear 100% | 4,981,169 | 59,936,028 |
| 15 | Hydro - Conventional | 368,610 | 2,877,050 |
| 16 | Hydro - Pumped storage | (44,946) | (529,226) |
| 17 | Total hydro | 323,664 | 2,347,824 |
| 18 | Solar Distributed Generation | 5,768 | 130,018 |
| 19 | Total MWH generation | 7,921,672 | 101,764,129 |
| 20 | Less joint owners' portion - Nuclear | 1,147,290 | 15,165,371 |
| 21 | Less joint owners' portion - Combined Cycle | 27,377 | 460,452 |
| 22 | Adjusted total MWH generation | 6,747,005 | 86,138,306 |

Note: Detail amounts may not add to totals shown due to rounding.

DUKE ENERGY CAROLINAS
DETAILS OF FUEL AND FUEL-RELATED COSTS

Docket No. E-7, Sub 1161

| Fuel and fuel-related costs: | December 2018 | 12 Months Ended December 2018 |
|---|---|---|
| 0501110 coal consumed - steam | $ 46,847,568 | $ 675,888,074 |
| 0501222-0501223 biomass/test fuel consumed | - | |
| 0501310 fuel oil consumed - steam | 1,223,578 | 8,586,389 |
| 0501330 fuel oil light-off - steam | 593,669 | 7,287,851 |
| Total Steam Generation - Account 501 | 48,664,815 | 691,762,314 |
| Nuclear Generation - Account 518 | | |
| 0518100 burnup of owned fuel | 23,069,842 | 275,311,826 |
| Other Generation - Account 547 | | |
| 0547100, 0547124 - natural gas consumed - Combustion Turbine | 2,272,971 | 98,161,049 |
| 0547100 natural gas consumed - Steam | 5,696,114 | 8,633,545 |
| 0547101 natural gas consumed - Combined Cycle | 31,773,516 | 373,047,230 |
| 0547106 biogas consumed - Combined Cycle | 175,961 | 1,523,560 |
| 0547200 fuel oil consumed - Combustion Turbine | 57,020 | 25,830,495 |
| Total Other Generation - Account 547 | 39,975,582 | 507,195,879 |
| Reagents | | |
| Reagents (lime, limestone, ammonia, urea, dibasic acid, and sorbents) | 1,549,134 | 27,110,200 |
| Total Reagents | 1,549,134 | 27,110,200 |
| By-products | | |
| Net proceeds from sale of by-products | 583,525 | 6,085,203 |
| Total By-products | 583,525 | 6,085,203 |
| Total Fossil and Nuclear Fuel Expenses Included in Base Fuel Component | 113,842,898 | 1,507,465,422 |
| Purchased Power and Net Interchange - Account 555 | | |
| Capacity component of purchased power (economic) | 211,474 | 10,514,290 |
| Capacity component of purchased power (renewables) | 594,915 | 13,300,661 |
| Capacity component of purchased power (PURPA) | 159,399 | 6,541,261 |
| Fuel and fuel-related component of purchased power | 59,686,689 | 434,709,945 |
| Total Purchased Power and Net Interchange - Account 555 | 60,652,477 | 465,066,157 |
| Less: | | |
| Fuel and fuel-related costs recovered through intersystem sales | 6,944,585 | 86,336,253 |
| Fuel in loss compensation | 92,474 | 925,224 |
| Solar integration charge revenue | 758 | 758 |
| Total Fuel Credits - Accounts 447 /456 | 7,037,817 | 87,262,235 |
| Total Fuel and Fuel-related Costs | $ 167,457,560 | $ 1,885,269,344 |

Notes: Detail amounts may not add to totals shown due to rounding.
Report reflects net ownership costs of jointly owned facilities.

**DUKE ENERGY CAROLINAS**
**PURCHASED POWER AND INTERCHANGE**
**SYSTEM REPORT - NORTH CAROLINA VIEW**

**December 2018**

| Purchased Power | Total | Capacity | Non-capacity | | | |
|---|---|---|---|---|---|---|
| **Economic** | $ | $ | mWh | Fuel $ | Fuel-related $ | Not Fuel $ Not Fuel-related $ |
| Cherokee County Cogeneration Partners | $ 1,287,426 | $ 211,474 | 27,369 | $ 946,407 | $ 129,545 | |
| City of Kings Mountain | 8,979 | 8,979 | - | - | - | |
| DE Progress - Native Load Transfer | 27,945,591 | - | 741,793 | 23,410,601 | 4,543,696 | $ (8,706) |
| DE Progress - Native Load Transfer Benefit | 1,156,134 | - | - | 1,156,134 | - | |
| DE Progress - Fees | (156,964) | - | - | - | (156,964) | |
| Haywood Electric - Economic | 40,903 | 20,630 | 336 | 12,367 | 7,906 | |
| Macquarie Energy, LLC | 6,826,931 | - | 146,439 | 4,164,428 | 2,662,503 | |
| NCEMC - Economic | 115,200 | - | 3,600 | 70,272 | 44,928 | |
| NCMPA Instantaneous - Economic | 1,813,810 | - | 53,310 | 1,088,467 | 725,343 | |
| NTE Carolinas LLC | 3,232,610 | - | 78,830 | 1,971,892 | 1,260,718 | |
| Piedmont Municipal Power Agency | 307,201 | - | 10,960 | 184,355 | 122,846 | |
| PJM Interconnection, LLC. | 11,214,935 | - | 313,334 | 6,841,110 | 4,373,825 | |
| Southern Company Services, Inc. | 250,370 | - | 9,167 | 152,726 | 97,644 | |
| Tennesse Valley Authority | 96,400 | - | 2,600 | 58,804 | 37,596 | |
| Town of Dallas | 584 | 584 | - | - | - | |
| Town of Forest City | 19,856 | 19,856 | - | - | - | |
| | **$ 54,159,966** | **$ 261,523** | **1,387,738** | **$ 40,057,563** | **$ 13,849,586** | **$ (8,706)** |
| **Renewable Energy** | | | | | | |
| REPS | $ 4,406,020 | $ 594,902 | 77,027 | $ - | $ 3,811,118 | $ - |
| DERP - Purchased Power | 149 | 13 | 3 | - | 136 | |
| | **$ 4,406,169** | **$ 594,915** | **77,030** | **$ -** | **$ 3,811,254** | **$ -** |
| **HB589 PURPA Purchases** | | | | | | |
| Qualifying Facilities | 1,936,441 | 159,399 | 37,040 | | 1,712,356 | 64,686 |
| | **$ 1,936,441** | **$ 159,399** | **37,040** | **$ -** | **$ 1,712,356** | **$ 64,686** |
| **Non-dispatchable** | | | | | | |
| Blue Ridge Electric Membership Corp. | $ 1,244,696 | $ 724,668 | 26,268 | $ 317,217 | | $ 202,811 |
| Haywood Electric | 351,238 | 152,148 | 7,201 | 121,445 | | 77,645 |
| Macquarie Energy, LLC | 957,341 | - | 12,433 | 583,978 | | 373,363 |
| NCEMC - Other | 4,398 | 4,398 | - | - | | - |
| NCMPA | 155,400 | - | 1,110 | 94,794 | | 60,606 |
| Piedmont Electric Membership Corp. | 592,764 | 346,426 | 11,904 | 150,266 | | 96,072 |
| Generation Imbalance | 1,078,303 | - | 8,735 | 242,385 | | 835,918 |
| Energy Imbalance - Purchases | (277,960) | - | (11,956) | (169,556) | | (108,404) |
| Energy Imbalance - Sales | (269,174) | - | - | (269,534) | | 360 |
| Other Purchases | 648 | - | 19 | - | | 648 |
| | **$ 3,837,654** | **$ 1,227,640** | **55,714** | **$ 1,070,995** | **$ -** | **$ 1,539,019** |
| **Total Purchased Power** | **$ 64,340,230** | **$ 2,243,477** | **1,557,522** | **$ 41,128,558** | **$ 19,373,196** | **$ 1,594,999** |
| Interchanges In | | | | | | |
| Other Catawba Joint Owners | 6,629,878 | - | 579,425 | 3,870,366 | | 2,759,512 |
| WS Lee Joint Owner | 1,406,837 | | 43,619 | 1,229,697 | | 177,140 |
| Total Interchanges In | 8,036,714 | - | 623,044 | 5,100,063 | - | 2,936,651 |
| | | | | | | (1) |
| Interchanges Out | | | | | | |
| Other Catawba Joint Owners | (7,985,890) | (134,209) | (695,363) | (4,647,804) | | (3,203,877) |
| Catawba- Net Negative Generation | (66,943) | - | (2,964) | (51,150) | | (15,793) |
| WS Lee Joint Owner | (1,402,174) | | (42,514) | (1,216,174) | | (186,000) |
| Total Interchanges Out | (9,455,007) | (134,209) | (740,841) | (5,915,128) | - | (3,405,670) |
| **Net Purchases and Interchange Power** | **$ 62,921,937** | **$ 2,109,268** | **1,439,725** | **$ 40,313,493** | **$ 19,373,196** | **$ 1,125,979** |

NOTE: Detail amounts may not add to totals shown due to rounding.

**Revised McGee Exhibit 6**
Schedule 3 - Purchases
Page 1 of 4

**DUKE ENERGY CAROLINAS**
**INTERSYSTEM SALES***
**SYSTEM REPORT - NORTH CAROLINA VIEW**

**DECEMBER 2018**

| Sales | Total $ | Capacity $ | Non-capacity mWh | Non-capacity Fuel $ | Non-capacity Non-fuel $ |
|---|---|---|---|---|---|
| **Utilities:** | | | | | |
| SC Public Service Authority - Emergency | $ 19,312 | - | 475 | $ 16,530 | $ 2,782 |
| SC Electric & Gas - Emergency | 22,373 | - | 383 | 21,699 | 674 |
| **Market Based:** | | | | | |
| NCMPA | 110,344 | $ 87,568 | 392 | 22,919 | (143) |
| PJM Interconnection, LLC. | 69 | - | - | - | 69 |
| SC Electric & Gas | 2,050 | - | - | - | 2,050 |
| **Other:** | | | | | |
| DE Progress - Native Load Transfer Benefit | 287,133 | - | - | 287,133 | - |
| DE Progress - Native Load Transfer | 8,259,541 | - | 225,840 | 6,529,920 | 1,729,621 |
| Generation Imbalance | 76,917 | - | 1,120 | 66,384 | 10,533 |
| BPM Transmission | (67,517) | - | | | (67,517) |
| **Total Intersystem Sales** | **$ 8,710,222** | **$ 87,568** | **228,210** | **$ 6,944,585** | **$ 1,678,069** |

* Sales for resale other than native load priority.

NOTE: Detail amounts may not add to totals shown due to rounding.

**Revised McGee Exhibit 6**
Schedule 3 - Sales
Page 2 of 4

**DUKE ENERGY CAROLINAS**
**PURCHASED POWER AND INTERCHANGE**
**SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended December 2018**

| Purchased Power | Total | Capacity | Non-capacity | | | |
|---|---|---|---|---|---|---|
| **Economic** | $ | $ | mWh | Fuel $ | Fuel-related $ | Not Fuel $ Not Fuel-related $ |
| Cherokee County Cogeneration Partners | $ 31,713,488 | $ 10,514,290 | 536,248 | $ 18,602,696 | $ 2,596,502 | |
| City of Kings Mountain | 107,748 | 107,748 | - | - | - | |
| DE Progress - Native Load Transfer | 194,410,960 | - | 5,426,920 | 174,475,494 | 19,671,245 | $ 264,221 |
| DE Progress - Native Load Transfer Benefit | 13,751,828 | - | - | 13,751,828 | - | |
| DE Progress - Fees | (1,093,167) | - | - | - | (1,093,167) | |
| EDF Trading North America, LLC. | 76,115 | - | 3,005 | 46,430 | 29,685 | |
| Exelon Generation Company, LLC. | 118,087 | - | 4,060 | 72,034 | 46,053 | |
| Haywood Electric - Economic | 487,779 | 251,870 | 5,097 | 143,904 | 92,005 | |
| Macquarie Energy, LLC | 29,508,026 | - | 770,088 | 17,999,896 | 11,508,130 | |
| Morgan Stanley Capital Group | 24,839 | - | 1,112 | 15,152 | 9,687 | |
| NCEMC | 169,200 | - | 5,490 | 103,212 | 65,988 | |
| NCMPA | 4,490,834 | - | 71,519 | 3,053,238 | 1,437,596 | |
| NCMPA Load Following Economic | 16,007,553 | - | 506,485 | 10,121,981 | 5,885,572 | |
| NTE Carolinas LLC | 7,004,810 | - | 195,650 | 4,272,935 | 2,731,875 | |
| Piedmont Municipal Power Agency | 2,609,446 | - | 88,744 | 1,680,985 | 928,461 | |
| PJM Interconnection, LLC. | 51,171,173 | - | 864,902 | 31,214,417 | 19,956,756 | |
| Rainbow Energy Marketing Corporation | 87,525 | - | 3,285 | 53,390 | 34,135 | |
| South Carolina Electric & Gas Company | 212,527 | - | 4,600 | 127,811 | 84,716 | |
| Southern Company Services, Inc. | 1,289,556 | - | 45,702 | 786,630 | 502,926 | |
| Tennesse Valley Authority | 1,603,241 | - | 30,841 | 977,977 | 625,264 | |
| The Energy Authority | 38,483 | - | 1,167 | 23,475 | 15,008 | |
| Town of Dallas | 7,008 | 7,008 | - | - | - | |
| Town of Forest City | 238,272 | 238,272 | - | - | - | |
| | **$ 354,035,331** | **$ 11,119,188** | **8,564,915** | **$ 277,523,485** | **$ 65,128,437** | **$ 264,221** |
| **Renewable Energy** | | | | | | |
| REPS | $ 62,977,408 | $ 13,300,096 | 976,170 | $ - | $ 49,677,312 | $ - |
| DERP - Purchased Power | 2,713 | 565 | 49 | - | 2,148 | |
| DERP - Net Metered Generation | 43,550 | 7,964 | 15 | - | | 35,586 |
| | **$ 63,023,671** | **$ 13,308,625** | **$ 976,235** | **$ -** | **$ 49,679,460** | **$ 35,586** |
| **HB589 PURPA Purchases** | | | | | | |
| Qualifying Facilities | 33,208,999 | 6,541,261 | 549,098 | | $ 25,585,400 | $ 1,082,338 |
| | **$ 33,208,999** | **6,541,261** | **549,098** | **$ -** | **$ 25,585,400** | **$ 1,082,338** |
| **Non-dispatchable** | | | | | | |
| Blue Ridge Electric Membership Corp. | $ 14,972,210 | $ 8,136,773 | 295,129 | $ 4,169,615 | | $ 2,665,822 |
| Haywood Electric | 4,206,307 | 1,935,370 | 80,216 | 1,385,271 | | 885,666 |
| Macquarie Energy, LLC | 18,266,985 | - | 307,544 | 11,142,861 | | 7,124,124 |
| NCEMC - Other | 647,276 | 52,776 | 6,570 | 362,645 | | 231,855 |
| NCMPA - Reliability | 245,400 | - | 2,610 | 149,694 | | 95,706 |
| NTE Carolinas LLC | 1,828,310 | - | 36,865 | 1,115,269 | | 713,041 |
| Piedmont Electric Membership Corp. | 7,179,987 | 3,902,138 | 140,568 | 1,999,488 | | 1,278,361 |
| South Carolina Electric & Gas Company | 131,734 | - | 1,400 | 80,358 | | 51,376 |
| Southern Company Services, Inc. | 2,984,720 | - | 47,510 | 1,820,679 | | 1,164,041 |
| Generation Imbalance | 3,782,664 | | 82,265 | 1,893,961 | | 1,888,703 |
| Energy Imbalance - Purchases | 2,199,376 | | 25,123 | 1,350,748 | | 848,628 |
| Energy Imbalance - Sales | (1,765,005) | | - | (6,529,253) | | 4,764,248 |
| Other Purchases | 12,518 | - | 352 | - | | 12,518 |
| | **$ 54,692,482** | **$ 14,027,057** | **1,026,152** | **$ 18,941,336** | **$ -** | **$ 21,724,089** |
| **Total Purchased Power** | **$ 504,960,483** | **$ 44,996,131** | **11,116,400** | **$ 296,464,821** | **$ 140,393,297** | **$ 23,106,234** |
| | | | | | | - |
| Interchanges In | | | | | | |
| Other Catawba Joint Owners | 91,135,514 | - | 7,642,809 | 56,961,998 | | 34,173,516 |
| WS Lee Joint Owner | 7,725,713 | - | 271,306 | 6,611,033 | | 1,114,680 |
| Total Interchanges In | 98,861,227 | - | 7,914,116 | 63,573,032 | - | 35,288,195 |
| Interchanges Out | | | | | | |
| Other Catawba Joint Owners | (93,139,372) | (1,580,207) | (7,784,646) | (57,610,256) | | (33,948,909) |
| Catawba- Net Negative Generation | (231,152) | - | (11,304) | (180,241) | | (50,911) |
| WS Lee Joint Owner | (9,390,983) | - | (327,441) | (7,930,708) | | (1,460,275) |
| Total Interchanges Out | (102,761,507) | (1,580,207) | (8,123,391) | (65,721,205) | - | (35,460,095) |
| **Net Purchases and Interchange Power** | **$ 501,060,203** | **$ 43,415,924** | **10,907,125** | **$ 294,316,648** | **$ 140,393,297** | **$ 22,934,334** |

NOTES: Detail amounts may not add to totals shown due to rounding.

**Revised McGee Exhibit 6**
Schedule 3 - Purchases
Page 3 of 4

**DUKE ENERGY CAROLINAS**
**INTERSYSTEM SALES***
**SYSTEM REPORT - NORTH CAROLINA VIEW**

**Twelve Months Ended**
**DECEMBER 2018**

| Sales | Total $ | | Capacity $ | | Non-capacity mWh | Non-capacity Fuel $ | Non-capacity Non-fuel $ |
|---|---|---|---|---|---|---|---|
| **Utilities:** | | | | | | | |
| DE Progress - Emergency | $ 15,390 | | - | | 333 | $ 13,113 | $ 2,277 |
| SC Public Service Authority - Emergency | 2,315,135 | | $ 224,000 | | 7,527 | 2,007,790 | 83,345 |
| SC Electric & Gas - Emergency | 103,368 | **A** | - | **A** | 1,974 | 87,826 | 15,542 |
| **Market Based:** | | | | | | | |
| Central Electric Power Cooperative, Inc. | 2,793,800 | **B** | 2,793,800 | **B** | - | - | - |
| EDF Trading Company | 2,600 | | - | | 50 | 1,976 | 624 |
| Macquarie Energy, LLC | 19,200 | | - | | - | - | 19,200 |
| NCMPA | 1,454,481 | | 1,050,069 | | 5,529 | 368,868 | 35,544 |
| PJM Interconnection, LLC. | 1,502,443 | | - | | 24,365 | 918,000 | 584,443 |
| SC Electric & Gas | 317,950 | **A** | - | **A** | 4,050 | 268,115 | 49,835 |
| Tennessee Valley Authority | 49,525 | | - | | 1,025 | 37,501 | 12,024 |
| The Energy Authority | 55,545 | | - | | 604 | 33,101 | 22,444 |
| **Other:** | | | | | | | |
| DE Progress - Native Load Transfer Benefit | 5,666,748 | | - | | - | 5,666,748 | - |
| DE Progress - Native Load Transfer | 78,027,793 | | - | | 1,883,308 | 74,808,327 | 3,219,466 |
| Generation Imbalance | 1,760,829 | | - | | 16,679 | 2,124,888 | (364,059) |
| BPM Transmission | (245,056) | | - | | | - | (245,056) |
| **Total Intersystem Sales** | **$ 93,839,751** | | **$ 4,067,869** | | **1,945,444** | **$ 86,336,253** | **$ 3,435,629** |

* Sales for resale other than native load priority.

NOTES: Detail amounts may not add to totals shown due to rounding.

**A** - Twelve months ended December 2018 includes a correction to reclassify market sales for the month of October 2018 as an emergency sale. The October 2018 sales were as follows: Total dollars = $24,456, Non capacity MWH = 408, Non-capacity fuel dollars = $20,096, and Non-capacity non-fuel dollars = $3,550.

**B** - Twelve months ended December 2018 includes a correction to include market capacity sales for the period January 2018 - October 2018. Market capacity sales each month were as follows: Total dollars = $279,380, and capacity dollars= $279,380. Total market capacity sales dollars for the period January 2018 - October 2018 = $2,793,800.

# Duke Energy Carolinas
## (Over) / Under Recovery of Fuel Costs
## December 2018

| Line No. | | | Residential | Commercial | Industrial | Total |
|---|---|---|---|---|---|---|
| 1 | Actual System kWh sales | Input | | | | 7,490,426,895 |
| 2 | DERP Net Metered kWh generation | Input | | | | 10,412,429 |
| 3 | Adjusted System kWh sales | L1 + L2 | | | | 7,500,839,324 |
| 4 | N.C. Retail kWh sales | Input | 2,038,461,729 | 1,880,040,961 | 974,229,470 | 4,892,732,160 |
| 5 | NC kWh sales % of actual system kWh sales | L4 T / L1 | | | | 65.32% |
| 6 | NC kWh sales % of adjusted system kWh sales | L4 T / L3 | | | | 65.23% |
| 7 | Approved fuel and fuel-related rates (¢/kWh) | | | | | |
| | 7a Billed rates by class (¢/kWh) | Input Annually | 1.7003 | 1.8314 | 1.8020 | 1.7709 |
| | 7b Billed fuel expense | L7a * L4 / 100 | $34,659,965 | $34,431,070 | $17,555,615 | $86,646,650 |
| 8 | Incurred base fuel and fuel-related (less renewable purchased power capacity) rates by class (¢/kWh) | | | | | |
| | 8a Docket E-7, Sub 1163 allocation factor | Input | 35.64% | 41.77% | 22.59% | |
| | 8b System incurred expense | Input | | | | $166,830,104 |
| | 8c Incurred base fuel and fuel-related expense | L8b * L6 * 8a | $38,786,219 | $45,458,159 | $24,577,446 | $108,821,824 |
| | 8d Incurred base fuel rates by class (¢/kWh) | L8c / L4 * 100 | 1.9027 | 2.4179 | 2.5228 | 2.2242 |
| 9 | Incurred renewable purchased power capacity rates by class (¢/kWh) | | | | | |
| | 9a NC retail production plant % | Input | | | | 67.56% |
| | 9b Production plant allocation factors | Input | 43.68% | 37.64% | 18.68% | 100.00% |
| | 9c System incurred expense | Input | | | | $965,788 |
| | 9d Incurred renewable capacity expense | L9a * L9b * 9c | $285,027 | $245,590 | $121,872 | $652,488 |
| | 9e Incurred renewable capacity rates by class (¢/kWh) | (L9a * L9c) * L9b / L4 * 100 | 0.0140 | 0.0131 | 0.0125 | 0.0133 |
| 10 | Total incurred rates by class (¢/kWh) | L8d + L9e | 1.9167 | 2.4310 | 2.5353 | 2.2375 |
| 11 | Difference in ¢/kWh (incurred - billed) | L7c - L10 | 0.2164 | 0.5996 | 0.7333 | 0.4666 |
| 12 | (Over) / under recovery [See footnote] | (L4 * L11) / 100 | $4,411,281 | $11,272,678 | $7,143,703 | $22,827,662 |
| 13 | Prior period adjustments | Input | | | | |
| 14 | Total (over) / under recovery [See footnote] | L12+ L13 | $4,411,281 | $11,272,678 | $7,143,703 | $22,827,662 |
| 15 | Total system incurred expense | L8b + L9c | | | | $167,795,892 |
| 16 | Less: Jurisdictional allocation adjustment(s) | Input | | | | 338,332 |
| 17 | Total Fuel and Fuel-related Costs per Schedule 2 | L15 + L16 | | | | $167,457,560 |

Revised McGee Exhibit 6

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18 (Over) / under recovery for each month of the current calendar year [See footnote]

| | Year 2018 | (Over) / Under Recovery | | | | |
|---|---|---|---|---|---|---|
| | | Total To Date | Residential | Commercial | Industrial | Total Company |
| | January | $70,210,459 | $12,463,615 | $33,104,497 | $24,642,348 | $70,210,459 |
| | February | 48,920,711 | ($11,989,284) | ($6,434,005) | ($2,866,460) | (21,289,748) |
| _/1 | March | 53,688,504 | $1,587,096 | $1,503,768 | $1,676,929 | 4,767,793 |
| _/1 | April | 39,952,067 | ($3,469,659) | ($6,335,002) | ($3,931,775) | (13,736,437) |
| | May | 46,088,897 | $5,910,833 | ($210,465) | $436,461 | 6,136,830 |
| | June | 52,711,139 | $2,162,126 | $1,145,088 | $3,315,028 | 6,622,242 |
| _/2 | July | 67,208,623 | $2,375,059 | $5,295,453 | $6,826,972 | 14,497,484 |
| | August | 80,715,732 | $3,875,805 | $4,054,944 | $5,576,360 | 13,507,109 |
| _/2 | September | 75,122,857 | ($6,784) | ($5,202,149) | ($383,942) | (5,592,875) |
| _/2 | October | 91,539,889 | $5,784,976 | $5,860,345 | $4,771,711 | 16,417,032 |
| | November | $109,017,571 | $9,241,689 | $5,957,400 | $2,278,593 | $17,477,682 |
| | December | $131,845,232 | $4,411,281 | $11,272,678 | $7,143,703 | $22,827,661 |
| | | | $32,346,753 | $50,012,552 | $49,485,928 | $131,845,232 |

Notes:
Detail amounts may not recalculate due to percentages presented as rounded.

Presentation of over or under collected amounts reflects a regulatory asset or liability. Over collections, or regulatory liabilities, are shown as negative amounts.
Under collections, or regulatory assets, are shown as positive amounts.

_/1 Includes prior period adjustments.
_/2 Reflects a prorated rate and prorated allocation factor for periods in which the approved rates changed.

DUKE ENERGY CAROLINAS
FUEL AND FUEL RELATED COST REPORT
DECEMBER 2018

| Description | Allen Steam | Belews Creek Steam | Buck CC | Catawba Nuclear | Cliffside Steam - Dual Fuel | Dan River CC | Lee CC | Lee Steam/CT | Lincoln CT | Marshall Steam | McGuire Nuclear | Mill Creek CT | Oconee Nuclear | Rockingham CT | Current Month | Total 12 ME December 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cost of Fuel Purchased ($)** | | | | | | | | | | | | | | | | |
| Coal | $49,933 | $17,907,637 | | | $8,548,228 | | | | | $22,079,739 | | | | | $48,585,537 | $657,498,215 |
| Oil | 143,133 | 1,082,966 | - | | 273,156 | - | - | - | - | - | | - | | - | 1,499,256 | 48,634,501 |
| Gas - CC | | | $13,103,055 | | | $12,923,682 | $6,858,257 | | | | | | | | 32,884,994 | 384,692,206 |
| Gas - CT | | | | | | | | 104,195 | $110,569 | | | $158,525 | | $1,899,682 | 2,272,971 | 98,161,049 |
| Gas - Steam | | | | | 5,695,205 | | | 909 | | | | | | | 5,696,114 | 8,633,545 |
| Biogas | | | - | | | 361,043 | - | | | | | | | | 361,043 | 3,466,205 |
| Total | $193,066 | $18,990,604 | $13,103,055 | | $14,516,590 | $13,284,725 | $6,858,257 | $105,103 | $110,569 | $22,079,739 | | $158,525 | | $1,899,682 | $91,299,914 | $1,201,085,721 |
| **Average Cost of Fuel Purchased (¢/MBTU)** | | | | | | | | | | | | | | | | |
| Coal | | 555.02 | | | 687.75 | - | | | | 399.01 | | | | | 485.71 | 324.71 |
| Oil | 1,321.84 | 172.99 | | | 692.52 | | | - | - | - | | - | | - | 221.68 | 1,358.88 |
| Gas - CC | | | 442.19 | | | 442.08 | 455.27 | | | | | | | | 442.14 | 392.80 |
| Gas - CT | | | | | | | | 532.70 | 467.48 | | | 510.56 | | 457.22 | 464.11 | 343.97 |
| Gas - Steam | | | | | 445.73 | | | | | | | | | | - | 410.58 |
| Biogas | | | - | | . | 1,577.30 | - | | | | | | | | 1,577.30 | 1,603.31 |
| Weighted Average | 1,782.98 | 492.94 | 442.19 | | 567.03 | 450.90 | 455.27 | 532.60 | 467.48 | 399.01 | | 510.56 | | 457.22 | 459.65 | 358.68 |
| **Cost of Fuel Burned ($)** | | | | | | | | | | | | | | | | |
| Coal | $741,089 | $19,525,109 | | | $12,888,384 | - | - | - | | $13,692,987 | | | | | $46,847,568 | $675,888,074 |
| Oil - CC | | | - | | | - | - | | | | | | | | - | - |
| Oil - Steam/CT | 163,523 | 1,219,227 | | | 286,271 | | | 25,472 | $25,788 | 148,226 | | - | | - | 1,874,266 | 41,704,735 |
| Gas - CC | | | $13,103,055 | | | $12,923,682 | $6,858,257 | | | | | | | | 32,884,994 | 384,692,206 |
| Gas - CT | | | | | | | | $104,195 | 110,569 | | | $158,525 | | $1,899,682 | 2,272,971 | 98,161,049 |
| Gas - Steam | | | | | 5,695,205 | | | 909 | | | | | | | 5,696,114 | 8,633,545 |
| Biogas | | | - | | | 361,043 | - | | | | | | | | 361,043 | 3,466,205 |
| Nuclear | | | | $8,356,486 | | | | | | | $10,990,838 | | $10,470,715 | | 29,818,039 | 370,839,248 |
| Total | $904,613 | $20,744,336 | $13,103,055 | $8,356,486 | $18,869,860 | $13,284,725 | $6,858,257 | $130,575 | $136,358 | $13,841,212 | $10,990,838 | $158,525 | $10,470,715 | $1,899,682 | $119,754,995 | $1,583,385,062 |
| **Average Cost of Fuel Burned (¢/MBTU)** | | | | | | | | | | | | | | | | |
| Coal | 359.55 | 352.99 | | | 354.20 | | | - | | 341.94 | | | | | 350.11 | 315.40 |
| Oil - CC | | | | | | | | | | | | | | | - | - |
| Oil - Steam/CT | 1,564.97 | 1,487.41 | | | 1,505.97 | | | 12,245.96 | 1,521.44 | 1,620.84 | | - | | - | 1,530.31 | 1,604.54 |
| Gas - CC | | | 442.19 | | | 442.08 | 455.27 | | | | | | | | 442.14 | 392.80 |
| Gas - CT | | | | | | | | 532.70 | 467.48 | | | 510.56 | | 457.22 | 464.11 | 343.97 |
| Gas - Steam | | | | | 445.73 | | | - | | | | | | | - | 410.58 |
| Biogas | | | - | | | 1,577.30 | - | | | | | | | | 1,577.30 | 1,603.31 |
| Nuclear | | | | 58.63 | | | | | | | 62.46 | | 58.28 | | 59.86 | 61.43 |
| Weighted Average | 417.71 | 369.55 | 442.19 | 58.63 | 382.33 | 450.90 | 455.27 | 654.77 | 537.96 | 344.86 | 62.46 | 510.56 | 58.28 | 457.22 | 165.17 | 166.78 |
| **Average Cost of Generation (¢/kWh)** | | | | | | | | 1,287.30 | 632.18 | | | | | | | |
| Coal | 2.92 | 3.41 | | | 3.52 | - | - | - | - | 3.41 | | | | | 3.43 | 2.98 |
| Oil - CC | | | - | | | - | - | | | | | | | | - | - |
| Oil - Steam/CT | 12.43 | 15.65 | | | 14.52 | - | - | 128.73 | 63.22 | 16.41 | | - | | - | 15.56 | 17.94 |
| Gas - CC | | | 3.06 | | | 3.11 | 3.19 | | | | | | | | 3.10 | 2.81 |
| Gas - CT | | | | | | | | 5.57 | 10.88 | | | 8.08 | | 5.09 | 5.39 | 3.85 |
| Gas - Steam | | | | | 4.45 | | | | - | | | | | | 4.47 | 4.60 |
| Biogas | | | - | | | 11.08 | - | | | | | | | | 11.08 | 11.48 |
| Nuclear | | | | 0.59 | | | | | | | 0.62 | | 0.59 | | 0.60 | 0.62 |
| Weighted Average | 3.39 | 3.57 | 3.06 | 0.59 | 3.80 | 3.17 | 3.19 | 9.16 | 12.90 | 3.44 | 0.62 | 8.08 | 0.59 | 5.09 | 1.51 | 1.56 |
| **Burned MBTU's** | | | | | | | | | | | | | | | | |
| Coal | 206,117 | 5,531,427 | | | 3,638,779 | | | - | | 4,004,460 | | | | | 13,380,783 | 214,294,473 |
| Oil - CC | | | | | | | | | | | | | | | - | - |
| Oil - Steam/CT | 10,449 | 81,970 | | | 19,009 | | | 208 | 1,695 | 9,145 | | - | | - | 122,476 | 2,599,178 |
| Gas - CC | | | 2,963,222 | | | 2,923,367 | 1,506,423 | | | | | | | | 7,393,012 | 97,936,802 |
| Gas - CT | | | | | | | | 19,560 | 23,652 | | | 31,049 | | 415,485 | 489,746 | 28,537,792 |
| Gas - Steam | | | | | 1,277,737 | | 174 | | | | | | | | 1,277,911 | 2,102,783 |
| Biogas | | | - | | | 22,890 | - | | | | | | | | 22,890 | 216,190 |
| Nuclear | | | | 14,252,377 | | | | | | | 17,596,869 | | 17,965,994 | | 49,815,240 | 603,676,564 |
| Total | 216,566 | 5,613,397 | 2,963,222 | 14,252,377 | 4,935,525 | 2,946,257 | 1,506,423 | 19,942 | 25,347 | 4,013,605 | 17,596,869 | 31,049 | 17,965,994 | 415,485 | 72,502,058 | 949,363,782 |

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DUKE ENERGY CAROLINAS
FUEL AND FUEL RELATED COST REPORT
DECEMBER 2018

| Description | Allen Steam | Belews Creek Steam | Buck CC | Catawba Nuclear | Cliffside Steam - Dual Fuel | Dan River CC | Lee CC | Lee Steam/CT | Lincoln CT | Marshall Steam | McGuire Nuclear | Mill Creek CT | Oconee Nuclear | Rockingham CT | Current Month | Total 12 ME December 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Net Generation (mWh)** | | | | | | | | | | | | | | | | |
| Coal | 25,397 | 573,052 | | | 366,421 | | | | | 401,855 | | | | | 1,366,724 | 22,653,740 |
| Oil - CC | | | | | | | | | | | | | | | - | - |
| Oil - Steam/CT | 1,315 | 7,791 | | | 1,972 | - | - | 20 | 41 | 903 | | - | | - | 12,042 | 232,515 |
| Gas - CC | | | 428,198 | | | 416,157 | 214,977 | - | | | | | | | 1,059,332 | 13,695,555 |
| Gas - CT | | | | | | | | 1,871 | 1,016 | | | 1,961 | | 37,330 | 42,178 | 2,550,671 |
| Gas - Steam | | | | | 128,002 | | | (466) | | | | | | | 127,536 | 187,574 |
| Biogas | | | - | | | 3,259 | - | | | | | | | | 3,259 | 30,204 |
| Nuclear 100% | | | | 1,420,722 | | | | | | | 1,778,199 | | 1,782,248 | | 4,981,169 | 59,936,028 |
| Hydro (Total System) | | | | | | | | | | | | | | | 323,664 | 2,347,824 |
| Solar (Total System) | | | | | | | | | | | | | | | 5,768 | 130,018 |
| Total | 26,712 | 580,843 | 428,198 | 1,420,722 | 496,394 | 419,416 | 214,977 | 1,425 | 1,057 | 402,758 | 1,778,199 | 1,961 | 1,782,248 | 37,330 | 7,921,672 | 101,764,129 |
| **Cost of Reagents Consumed ($)** | | | | | | | | | | | | | | | | |
| Ammonia | | ($46,049) | $14,280 | | $11,119 | $8,043 | $11,630 | | | | | | | | ($977) | $4,077,078 |
| Limestone | $24,711 | 467,587 | | | 478,632 | | | | | $374,113 | | | | | 1,345,043 | 19,594,631 |
| Sorbents | - | 53,543 | | | | | | | | 73,539 | | | | | 127,081 | 2,353,883 |
| Urea | - | | | | | | | | | 45,004 | | | | | 45,004 | 928,117 |
| Re-emission Chemical | | - | | | | | | | | | | | | | - | 69,161 |
| Dibasic Acid | - | | | | | | | | | | | | | | - | - |
| Activated Carbon | 34,464 | | | | | | | | | - | | | | | 34,464 | 170,782 |
| Total | $59,175 | $475,081 | $14,280 | | 489,751 | $8,043 | $11,630 | | | $492,656 | | | | | $1,550,615 | $27,193,652 |

**Notes:**
Detail amounts may not add to totals shown due to rounding.
Data is reflected at 100% ownership.
Schedule excludes in-transit and terminal activity.
Cents/MBTU and cents/kWh are not computed when costs and/or net generation is negative.
Re-emission chemical reagent expense is not recoverable in NC.

DUKE ENERGY CAROLINAS
FUEL AND FUEL RELATED CONSUMPTION AND INVENTORY REPORT
DECEMBER 2018

| Description | Allen Steam | Belews Creek Steam | Buck CC | Cliffside Steam - Dual Fuel | Dan River CC | Lee CC | Lee Steam/CT | Lincoln CT | Marshall Steam | Mill Creek CT | Rockingham CT | Current Month | Total 12 ME December 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Coal Data:** | | | | | | | | | | | | | |
| Beginning balance | 196,674 | 741,379 | | 565,251 | | | - | | 448,731 | | | 1,952,035 | 2,321,844 |
| Tons received during period | - | 221,261 | | 95,812 | | | | | 262,988 | | | 580,061 | 8,353,369 |
| Inventory adjustments | (16,000) | (91,871) | | (46,501) | | | - | | (41,785) | | | (196,158) | (171,512) |
| Tons burned during period | 8,841 | 221,660 | | 146,683 | | | - | | 158,816 | | | 536,000 | 8,703,762 |
| Ending balance | 171,833 | 649,109 | | 467,879 | | | - | | 511,118 | | | 1,799,939 | 1,799,939 |
| MBTUs per ton burned | 23.31 | 24.95 | | 24.81 | | | - | | 25.21 | | | 24.96 | 24.62 |
| Cost of ending inventory ($/ton) | 83.82 | 88.09 | | 87.87 | | | - | | 86.22 | | | 87.09 | 87.09 |
| **Oil Data:** | | | | | | | | | | | | | |
| Beginning balance | 90,694 | 221,182 | - | 236,089 | - | - | 714,747 | 9,834,797 | 312,274 | 4,366,782 | 3,238,190 | 19,014,755 | 16,962,536 |
| Gallons received during period | 75,652 | 578,080 | - | 144,399 | - | - | - | - | - | - | - | 798,131 | 21,144,157 |
| Miscellaneous adjustments | 448 | (35,415) | - | (11,633) | - | - | (9,425) | - | - | - | - | (57,379) | (352,297) |
| Gallons burned during period | 75,879 | 596,667 | | 137,943 | - | - | 1,520 | 12,305 | 66,449 | - | - | 889,408 | 18,888,297 |
| Ending balance | 90,915 | 167,180 | - | 230,912 | - | - | 703,802 | 9,822,492 | 245,825 | 4,366,782 | 3,238,190 | 18,866,098 | 18,866,098 |
| Cost of ending inventory ($/gal) | 2.16 | 1.99 | - | 2.08 | - | - | 2.33 | 2.10 | 2.23 | 2.47 | 2.17 | 2.20 | 2.20 |
| **Natural Gas Data:** | | | | | | | | | | | | | |
| Beginning balance | | | | | | | | | | | | | |
| MCF received during period | | | 2,880,290 | 1,244,450 | 2,818,207 | 1,473,258 | 19,360 | 23,206 | | 30,487 | 400,698 | 8,889,956 | 125,135,402 |
| MCF burned during period | | | 2,880,290 | 1,244,450 | 2,818,207 | 1,473,258 | 19,360 | 23,206 | | 30,487 | 400,698 | 8,889,956 | 125,135,402 |
| Ending balance | | | | | | | | | | | | | |
| **Biogas Data:** | | | | | | | | | | | | | |
| Beginning balance | | | | | | | | | | | | | |
| MCF received during period | | | - | | 22,062 | - | | | | | | 22,062 | 210,727 |
| MCF burned during period | | | - | | 22,062 | - | | | | | | 22,062 | 210,727 |
| Ending balance | | | | | | | | | | | | | |
| **Limestone Data:** | | | | | | | | | | | | | |
| Beginning balance | 23,869 | 38,673 | | 34,190 | | | | | 37,083 | | | 133,815 | 169,322 |
| Tons received during period | - | 6,707 | | 7,615 | | | | | 12,836 | | | 27,159 | 444,242 |
| Inventory adjustments | (2,996) | (4,910) | | - | | | | | (7,085) | | | (14,991) | (14,991) |
| Tons consumed during period | 527 | 11,600 | | 9,514 | | | | | 9,187 | | | 30,828 | 483,419 |
| Ending balance | 20,346 | 28,870 | | 32,292 | | | | | 33,647 | | | 115,155 | 115,155 |
| Cost of ending inventory ($/ton) | 46.89 | 39.54 | | 39.44 | | | | | 40.72 | | | 41.16 | 41.16 |

| | Qtr Ending December 2018 | Total 12 ME December 2018 |
|---|---|---|
| **Ammonia Data:** | | |
| Beginning balance | 1,315 | 1,159 |
| Tons received during period | 901 | 4,715 |
| Tons consumed during period | 583 | 4,241 |
| Ending balance | 1,633 | 1,633 |
| Cost of ending inventory ($/ton) | 620.44 | 620.44 |

**Notes:**
Detail amounts may not add to totals shown due to rounding.
Schedule excludes in-transit and terminal activity.
Gas is burned as received; therefore, inventory balances are not maintained.

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Schedule 6

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Schedule 7



**DUKE ENERGY CAROLINAS**

**ANALYSIS OF COAL PURCHASED**

**DECEMBER 2018**

| STATION | TYPE | QUANTITY OF TONS DELIVERED | DELIVERED COST | DELIVERED COST PER TON |
|---|---|---|---|---|
| **ALLEN** | SPOT | - | $ - | $ - |
| | CONTRACT | - | - | - |
| | ADJUSTMENTS | - | 49,933 | - |
| | TOTAL | - | 49,933 | - |
| **BELEWS CREEK** | SPOT | - | 11,982 | - |
| | CONTRACT | 221,261 | 17,706,037 | 80.02 |
| | ADJUSTMENTS | - | 189,618 | - |
| | TOTAL | 221,261 | 17,907,637 | 80.93 |
| **CLIFFSIDE** | SPOT | - | - | - |
| | CONTRACT | 95,812 | 7,221,379 | 75.37 |
| | ADJUSTMENTS | - | 1,326,849 | - |
| | TOTAL | 95,812 | 8,548,228 | 89.22 |
| **MARSHALL** | SPOT | 96,525 | 8,181,703 | 84.76 |
| | CONTRACT | 166,463 | 13,355,663 | 80.23 |
| | ADJUSTMENTS | - | 542,373 | - |
| | TOTAL | 262,988 | 22,079,739 | 83.96 |
| **ALL PLANTS** | SPOT | 96,525 | 8,193,685 | 84.89 |
| | CONTRACT | 483,536 | 38,283,079 | 79.17 |
| | ADJUSTMENTS | - | 2,108,773 | - |
| | TOTAL | 580,061 | $ 48,585,537 | $ 83.76 |

Schedule 8





**DUKE ENERGY CAROLINAS**

**ANALYSIS OF COAL QUALITY RECEIVED**

**DECEMBER 2018**

| STATION | PERCENT MOISTURE | PERCENT ASH | HEAT VALUE | PERCENT SULFUR |
|---|---|---|---|---|
| **BELEWS CREEK** | 6.91 | 10.15 | 12,468 | 1.58 |
| **CLIFFSIDE** | 8.48 | 7.60 | 12,603 | 2.35 |
| **MARSHALL** | 6.73 | 10.02 | 12,508 | 1.73 |

Schedule 9



**DUKE ENERGY CAROLINAS**
**ANALYSIS OF OIL PURCHASED**
**DECEMBER 2018**

| | ALLEN | BELEWS CREEK | CLIFFSIDE |
|---|---|---|---|
| **VENDOR** | HighTowers | HighTowers | HighTowers |
| **SPOT/CONTRACT** | Contract | Contract | Contract |
| **SULFUR CONTENT %** | 0 | 0 | 0 |
| **GALLONS RECEIVED** | 75,652 | 578,080 | 144,399 |
| **TOTAL DELIVERED COST** | $ 143,133 | $ 1,082,966 | $ 273,156 |
| **DELIVERED COST/GALLON** | $ 1.89 | $ 1.87 | $ 1.89 |
| **BTU/GALLON** | 138,000 | 138,000 | 138,000 |

# Duke Energy Carolinas
## Power Plant Performance Data
## Twelve Month Summary
### January, 2018 - December, 2018
### Nuclear Units

| Unit Name | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Equivalent Availability (%) |
|---|---|---|---|---|
| Oconee 1 | 6,745,635 | 847 | 90.91 | 89.94 |
| Oconee 2 | 7,581,168 | 848 | 102.06 | 100.00 |
| Oconee 3 | 6,967,442 | 859 | 92.59 | 92.12 |
| McGuire 1 | 10,359,250 | 1,158 | 102.12 | 99.56 |
| McGuire 2 | 9,502,818 | 1,158 | 93.68 | 91.80 |
| Catawba 1 | 9,510,487 | 1,160 | 93.59 | 92.99 |
| Catawba 2 | 9,269,228 | 1,150 | 92.01 | 91.84 |

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018
## Combined Cycle Units

| Unit Name | | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Equivalent Availability (%) |
|---|---|---|---|---|---|
| Buck CC | 11 | 1,463,456 | 206 | 81.10 | 88.68 |
| Buck CC | 12 | 1,471,968 | 206 | 81.57 | 89.09 |
| Buck CC | ST10 | 2,237,637 | 312 | 81.87 | 96.78 |
| Buck CC | Block Total | 5,173,061 | 724 | 81.57 | 92.29 |
| Dan River CC | 8 | 1,433,925 | 199 | 82.26 | 86.38 |
| Dan River CC | 9 | 1,410,200 | 199 | 80.90 | 85.84 |
| Dan River CC | ST7 | 2,118,133 | 320 | 75.56 | 91.38 |
| Dan River CC | Block Total | 4,962,258 | 718 | 78.90 | 88.46 |
| WS Lee CC | 11 | 1,030,538 | 223 | 70.01 | 75.09 |
| WS Lee CC | 12 | 1,090,492 | 223 | 74.08 | 77.05 |
| WS Lee CC | ST10 | 1,402,639 | 337 | 63.05 | 76.36 |
| WS Lee CC | Block Total | 3,523,669 | 783 | 68.17 | 76.19 |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- Data is reflected at 100% ownership.

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018

### Baseload Steam Units

| Unit Name | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Equivalent Availability (%) |
|---|---|---|---|---|
| Belews Creek 1 | 4,793,474 | 1,110 | 49.30 | 88.06 |
| Belews Creek 2 | 3,227,943 | 1,110 | 33.20 | 69.66 |
| Marshall 3 | 3,176,205 | 658 | 55.10 | 89.31 |
| Marshall 4 | 3,675,692 | 660 | 63.58 | 88.48 |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018

### Intermediate Steam Units

| Unit Name | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Equivalent Availability (%) |
|---|---|---|---|---|
| Cliffside 6 | 4,311,369 | 844 | 58.31 | 75.32 |
| Marshall 1 | 958,416 | 380 | 28.79 | 88.74 |
| Marshall 2 | 675,957 | 380 | 20.31 | 68.31 |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018
## Other Cycling Steam Units

| Unit Name | | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Operating Availability (%) |
|---|---|---|---|---|---|
| Allen | 1 | 71,408 | 167 | 4.88 | 83.17 |
| Allen | 2 | 86,505 | 167 | 5.91 | 84.03 |
| Allen | 3 | 158,113 | 270 | 6.68 | 80.91 |
| Allen | 4 | 178,336 | 267 | 7.62 | 89.89 |
| Allen | 5 | 325,399 | 259 | 14.34 | 85.49 |
| Cliffside | 5 | 1,243,104 | 546 | 25.99 | 61.63 |
| Lee | 3 | 54,152 | 173 | 3.57 | 36.34 |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018
## Combustion Turbine Stations

| Station Name | Net Generation (mWh) | Capacity Rating (mW) | Operating Availability (%) |
|---|---|---|---|
| Lee CT | 79,514 | 96 | 84.70 |
| Lincoln CT | 82,484 | 1,565 | 93.72 |
| Mill Creek CT | 201,194 | 735 | 99.23 |
| Rockingham CT | 2,325,235 | 895 | 90.19 |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

# Duke Energy Carolinas
# Power Plant Performance Data
## Twelve Month Summary
## January, 2018 through December, 2018
## Hydroelectric Stations

| Station Name | Net Generation (mWh) | Capacity Rating (mW) | Operating Availability (%) |
|---|---|---|---|
| **Conventional Hydroelectric Stations:** | | | |
| Bear Creek | 37,232 | 9.5 | 86.90 |
| Bridgewater | 117,680 | 31.5 | 95.52 |
| Bryson | 4,632 | 0.9 | 85.69 |
| Cedar Cliff | 27,610 | 6.8 | 92.39 |
| Cedar Creek | 178,151 | 45.0 | 81.91 |
| Cowans Ford | 312,212 | 324.0 | 58.69 |
| Dearborn | 222,145 | 42.0 | 97.55 |
| Fishing Creek | 203,570 | 50.0 | 88.41 |
| Franklin | 3,726 | 1.0 | 58.90 |
| Gaston Shoals | 14,686 | 4.5 | 96.65 |
| Great Falls | -92 | 12.0 | 100.00 |
| Keowee | 98,064 | 152.0 | 99.21 |
| Lookout Shoals | 162,927 | 27.0 | 99.26 |
| Mission | 5,388 | 1.8 | 51.83 |
| Mountain Island | 207,502 | 62.0 | 90.56 |
| Nantahala | 270,145 | 50.0 | 99.03 |
| Ninety-Nine Islands | 83,267 | 15.2 | 91.67 |
| Oxford | 107,478 | 40.0 | 38.56 |
| Queens Creek | 4,621 | 1.4 | 99.89 |
| Rhodhiss | 119,297 | 33.5 | 94.18 |
| Rocky Creek | -73 | 3.0 | 0.00 |
| Tennessee Creek | 48,111 | 9.8 | 93.76 |
| Thorpe | 96,019 | 19.7 | 93.15 |
| Tuckasegee | 7,077 | 2.5 | 85.11 |
| Tuxedo | 33,861 | 6.4 | 96.21 |
| Wateree | 336,004 | 85.0 | 81.96 |
| Wylie | 175,810 | 72.0 | 55.96 |
| **Pumped Storage Hydroelectric Stations:** | | | |
| **Gross Generation** | | | |
| Bad Creek | 1,447,036 | 1,360.0 | 65.67 |
| Jocassee | 1,204,730 | 780.0 | 92.99 |
| **Energy for Pumping** | | | |
| Bad Creek | -1,838,591 | | |
| Jocassee | -1,342,401 | | |
| **Net Generation** | | | |
| Bad Creek | -391,555 | | |
| Jocassee | -137,671 | | |

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

# Duke Energy Carolinas
## Power Plant Performance Data
### Twelve Month Summary
### January 2018 through December 2018
### Pre-commercial Combined Cycle Units

Note: The Power Plant Performance Data reports are limited to capturing data beginning the first month a station is in commercial operation. During the months identified, Lee CC produced pre-commercial generation.

| Unit Name | | Net Generation (mWh) | Capacity Rating (mW) | Capacity Factor (%) | Equivalent Availability (%) |
|---|---|---|---|---|---|
| January 2018 | | | | | |
| Lee | 11 | -10 | n/a | n/a | n/a |
| Lee | 12 | -11 | n/a | n/a | n/a |
| Lee | ST10 | 0 | n/a | n/a | n/a |
| Lee | Block Total | -21 | n/a | n/a | n/a |
| February 2018 | | | | | |
| Lee | 11 | -1,575 | n/a | n/a | n/a |
| Lee | 12 | -1,120 | n/a | n/a | n/a |
| Lee | ST10 | 0 | n/a | n/a | n/a |
| Lee | Block Total | -2,695 | n/a | n/a | n/a |
| March 2018 | | | | | |
| Lee | 11 | 25,973 | n/a | n/a | n/a |
| Lee | 12 | 14,939 | n/a | n/a | n/a |
| Lee | ST10 | -1,349 | n/a | n/a | n/a |
| Lee | Block Total | 39,563 | n/a | n/a | n/a |
| April 1 - 4 | | | | | |
| Lee | 11 | 14,158 | n/a | n/a | n/a |
| Lee | 12 | 6,771 | n/a | n/a | n/a |
| Lee | ST10 | 8,994 | n/a | n/a | n/a |
| Lee | Block Total | 29,923 | n/a | n/a | n/a |
| Total | | 66,771 | | | |

Note: Detail amounts may not add to totals shown due to rounding.

**CERTIFICATE OF SERVICE**

I certify that a copy of Duke Energy Carolinas, LLC's Second Supplemental Testimony and Exhibits of Witness Kimberly McGee, in Docket No. E-7, Sub 1190, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 15th day of May, 2019.

Jack E. Jirak
Associate General Counsel
Duke Energy Corporation
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