

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2013-1-E**

In the Matter of  
Annual Review of Base Rates  
for Fuel Costs for  
Duke Energy Progress, Inc.

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**DIRECT TESTIMONY OF  
SHARON S. BABCOCK FOR DUKE  
ENERGY PROGRESS, INC.**

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

2 A. My name is Sharon S. Babcock and my business address is 526 South Church  
3 Street, Charlotte, North Carolina, 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am a Rates Manager supporting both Duke Energy Carolinas, LLC (“DEC”) and  
6 Duke Energy Progress, Inc. (“DEP” or the “Company”).

7 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
8 **PROFESSIONAL EXPERIENCE.**

9 A. I have a Bachelor of Science Degree in Accounting from Wright State University  
10 and a Master in Business Administration degree with a concentration in Finance  
11 from the University of Houston. After earning my CPA Certificate, I was  
12 employed for six years as Rates Administrator at Centerpoint Energy in  
13 Minneapolis, Minnesota. At Centerpoint Energy, I was involved in the  
14 preparation of general rate cases as well as numerous other regulatory filings. I  
15 then served for six years as a Financial Consultant at Xcel Energy in Minneapolis,  
16 Minnesota. In April 2006, I joined Duke Energy Corporation (“Duke Energy”) as  
17 Lead Rates Analyst. My responsibilities included developing cost-of-service  
18 studies and preparation and filing of rate riders. I began my current position in the  
19 Rate Department in October 2010.

20 **Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION IN ANY PRIOR**  
21 **PROCEEDINGS?**

22 A. Yes. I testified before this Commission in DEC’s 2011 annual fuel cost recovery  
23 proceeding in Docket No. 2011-3-E.

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

2 A. The purpose of my testimony is to provide DEP's actual fuel and environmental  
3 cost data for March 1, 2012 through February 28, 2013 (the "review period"), the  
4 projected fuel and environmental cost information for March 1, 2013 through June  
5 30, 2013 (the "forecast period"), and DEP's proposed fuel factors by customer  
6 class for July 1, 2013 through June 30, 2014 (the "billing period"). I will provide  
7 ten exhibits to support my testimony.

8 **Q. DOES DEP PURCHASE POWER AND HOW ARE THESE COSTS**  
9 **RECORDED?**

10 A. Yes. The Company continuously evaluates purchasing power if it can be reliably  
11 procured and delivered at a price that is less than the variable cost of DEP's  
12 generation. In accordance with S.C. Code Ann. § 58-27-865(A) of the Code of  
13 Laws of South Carolina ("Code"), DEP recovers from its South Carolina retail  
14 customers an amount that is the lower of the purchase price or DEP's avoided  
15 variable cost for generating an equivalent amount of power for its economy  
16 purchases.

17 The Company also purchases power from certain suppliers that are treated  
18 as firm generation capacity purchases. In accordance with the statute, all amounts  
19 paid to these suppliers are recorded as recoverable fuel costs with the exception of  
20 capacity charges. The Company also purchases (and sells) power to DEC as a  
21 result of the Joint Dispatch Agreement ("JDA") described in Company witness  
22 Weintraub's testimony. According to his testimony, under the joint dispatch  
23 process, the energy cost attributable to each utility's native load are the costs

1 actually incurred by the utility for energy allocated to native load service, adjusted  
2 by the cost allocation payments calculated by the Joint Dispatcher, which are  
3 treated as purchases and sales between the Companies.

4 **Q. PLEASE EXPLAIN BABCOCK EXHIBIT NO. 1.**

5 A. Babcock Exhibit No. 1 is a summary of DEP's actual system fuel cost experienced  
6 during the review period. Total system fuel costs were \$1,505,501,316.

7 **Q. HOW DID DEP'S FUEL REVENUE BILLINGS COMPARE TO THE**  
8 **FUEL COSTS INCURRED DURING THE MARCH 2012 TO JUNE 2013**  
9 **TIME PERIOD?**

10 A. Babcock Exhibit No. 2 is a monthly comparison of fuel revenues billed to South  
11 Carolina retail customers to the actual and estimated jurisdictional fuel costs  
12 attributable to those sales. As shown on Exhibit 2, the projected DEP fuel  
13 recovery status at June 30, 2013 is an under-recovery of \$6.0 million. This  
14 compares to the projected over-recovery at June 30, 2012 of \$5.8 million in DEP's  
15 2012 South Carolina fuel filing.

16 The \$6.0 million under-recovery includes two accounting adjustments,  
17 both reflected in February 2013. The first is an avoided cost adjustment of  
18 \$44,426 for the review period. This adjustment is to remove the cost of purchased  
19 power that exceeds DEP's variable avoided costs. The second is a proposed  
20 \$386,926 adjustment to share DEC's January 2012 to June 2012 merger savings  
21 with DEP's customers. The calculation of the \$386,926 DEP portion of the shared  
22 savings is shown on Exhibit 10, discussed later in my testimony.

23 **Q. PLEASE EXPLAIN BABCOCK EXHIBIT NO. 3.**

1 A. Babcock Exhibit No. 3 presents DEP's recommended base fuel rate of 2.941  
2 ¢/kWh for the billing period, consisting of a projected component of 2.850 ¢/kWh  
3 for the recovery of \$1.6 billion of projected fuel expense, and a true-up component  
4 of 0.091 ¢/kWh to collect the aforementioned projected \$6.0 million under-  
5 recovery.

6 The fuel forecast supporting the projected fuel cost was generated by an  
7 hourly dispatch model that considers the latest forecasted fuel prices, outages at  
8 the generating plants based on planned maintenance and refueling schedules,  
9 forced outages based on historical trends, generating unit performance parameters  
10 and expected market conditions associated with power purchase and off-system  
11 sales opportunities. In addition, the forecasting model reflects the joint dispatch of  
12 the combined power supply resources of DEC and DEP as described by Company  
13 witness Weintraub.

14 **Q. PLEASE EXPLAIN BABCOCK EXHIBIT NO.4.**

15 A. Babcock Exhibit No. 4 provides monthly projected total base fuel costs, system  
16 sales, and SC retail sales for the billing period.

17 **Q. PLEASE PROVIDE A STATUS UPDATE OF ENVIRONMENTAL COST**  
18 **COLLECTION AND EXPLAIN HOW THESE COSTS HAVE BEEN**  
19 **TREATED IN THIS FILING.**

20 A. During the review period, DEP recovered variable environmental costs and the  
21 costs of emission allowances through the environmental component of the fuel  
22 rate. Environmental costs allocated to the SC retail jurisdiction during the review  
23 period were approximately \$2.4 million as shown on Babcock Exhibit No. 5. The

1 Company currently estimates that its deferred environmental cost balance will be  
2 an over-collection of \$0.3 million at June 30, 2013.

3 **Q. HAVE YOU PROVIDED A FORECAST OF ENVIRONMENTAL COSTS?**

4 A. Yes, Babcock Exhibit No. 7 presents DEP's estimated environmental costs for the  
5 billing period of \$22.2 million. The SC retail portion is forecasted to be  
6 approximately \$2.7 million.

7 **Q. PLEASE DESCRIBE EMISSION-REDUCING CHEMICALS THAT DEP  
8 WILL INCLUDE IN THE PROPOSED FUEL RATE IN THIS FILING.**

9 A. As Company witness Miller explains more specifically on page 12 of his  
10 testimony, the Company uses emission-reducing chemicals at its fossil/hydro  
11 plants to help the Company provide low cost, reliable electric generation for its  
12 customers while also complying with state and federal environmental control  
13 obligations. As a result, the Company has included the cost of magnesium  
14 hydroxide, calcium carbonate, ammonia, urea, limestone, lime and hydrated lime  
15 incurred during the review period in its fuel cost recovery application.

16 Additionally, as Witness Miller also explains, the Company is also testing  
17 other emission-reducing chemicals including, but not limited to, activated carbon,  
18 calcium bromide, and re-emission chemicals in order to meet present and future  
19 state and federal emission requirements. As the Company expects to begin using  
20 such emission-reducing chemicals to continue to provide low cost, reliable electric  
21 generation to its customers while still meeting these requirements, it has included  
22 the estimated cost for these environmental reagents in its environmental costs for  
23 the forecast and billing periods. Pursuant to the language of § 58-27-865(A1) of

1 the Code, the Commission has the authority to allow the Company to recover the  
2 variable costs of environmental reagents other than those specifically spelled out  
3 in the statute at the time of the statute's inception.

4 **Q. HOW DID DEP ALLOCATE ENVIRONMENTAL COSTS?**

5 A. Environmental costs were allocated to Residential, General Service (non-demand),  
6 General Service (demand) and Lighting rate classes based upon the coincident  
7 peak experienced during the review period. This allocation is shown on Babcock  
8 Exhibit No. 6. Rates were designed based on costs allocated to the respective rate  
9 classes and the projected energy consumption for the residential, general service  
10 (non-demand) and lighting schedules. The rate for the general service (demand)  
11 class was based on projected annual demand. All allocations were consistent with  
12 the methodology approved by this Commission in DEP's 2007 fuel review  
13 proceeding, Order No. 2007-440 issued July 20, 2007. This methodology has  
14 been consistently used in each fuel case since the issuance of this Order.

15 **Q. HAVE YOU PRESENTED DEP'S PROPOSED FUEL FACTORS?**

16 A. Yes. Babcock Exhibit No. 8 presents proposed fuel rates including an amount  
17 added to account for the 5% discount provided to residential customers under  
18 DEP's SC Residential Service Energy Conservation Discount Rider RECD-2B.

19 **Q. WHY DOES DEP PROPOSE INCLUSION OF THE EFFECTS OF RIDER**  
20 **RECD-2B?**

21 A. The Company should not reflect fuel revenue collections for 100% of its fuel  
22 billings while simultaneously providing a 5% discount on the total bill as required

1 by Rider RECD-2B. As shown on Babcock Exhibit No.9, this discount impacts  
2 approximately 17% of DEP's SC residential sales.

3 **Q. HAS THE IMPACT OF THE 5% DISCOUNT BEEN RECOGNIZED IN**  
4 **PRIOR FUEL REVIEW PROCEEDINGS?**

5 A. Yes. The Company's request in this proceeding is consistent with this  
6 Commission's Orders issued in all of DEP's fuel proceedings since 2009.

7 **Q. DO YOU BELIEVE DEP'S ACTUAL FUEL COSTS INCURRED DURING**  
8 **THE PERIOD WERE REASONABLE?**

9 A. Yes. I believe the costs were reasonable and that DEP has demonstrated that it  
10 met the criteria set forth in § 58-27-865(F) of the Code. These costs also reflect  
11 DEP's continuing efforts to maintain reliable service and an economical  
12 generation mix, thereby minimizing the total cost of providing service to DEP's  
13 South Carolina retail customers.

14 **Q. THE COMPANY'S MERGER FUEL-RELATED SAVINGS RIDER**  
15 **BECAME EFFECTIVE ON SEPTEMBER 1, 2012 AND IS SET TO**  
16 **EXPIRE ON JUNE 30, 2013. HOW ARE MERGER FUEL-RELATED**  
17 **SAVINGS HANDLED IN THE COMPANY'S PROPOSED FUEL RATES?**

18 A. The expiration date of the merger fuel-related savings rider was set to align with  
19 the effective date of DEP's next fuel rate change, which is July 1, 2013. The rider  
20 was initially necessary to begin flowing merger fuel-related savings to customers  
21 promptly upon the close of the merger between Duke Energy and Progress  
22 Energy, Inc. ("Merger"). Since the Merger close, the fuel savings have been  
23 reflected on DEP's books in the form of lower fuel costs. The Company's true-up



1 to actual fuel costs, including merger savings during the period July 2012 through  
2 June 2013 and sharing of January 2012 to June 2012 merger savings from DEC,  
3 are reflected in DEP's under collection balance as shown on Exhibit 2. In  
4 addition, the projected fuel costs on which DEP's proposed fuel rates are based  
5 include expected merger fuel-related savings for the billing period. As a result,  
6 DEP has not proposed a separate merger fuel-related savings rider beyond June  
7 2013.

8 **Q. CAN YOU IDENTIFY WHERE IN THIS FILING THESE SAVINGS ARE**  
9 **INCLUDED?**

10 A. As Company witness Weintraub testified in Docket No. 2011-158-E, merger fuel-  
11 related savings automatically flow through to DEP's retail customers through the  
12 fuel and fuel-related cost component of customer's rates. As described above,  
13 actual merger savings during the review period are included in the EMF portion of  
14 the proposed fuel and fuel-related cost factors. In addition, in the prospective  
15 component of the factors, the projected merger savings related to procuring coal  
16 and reagents, lower transportation costs, lower gas capacity costs and coal  
17 blending are reflected in the cost of fossil fuel. Projected joint dispatch savings,  
18 which are the result of using the combined systems' lowest cost available  
19 generation to meet total customer demand, are also reflected in the cost of fossil  
20 fuel as well as the projected cost purchases and sales that include the purchases  
21 and sales between DEC and DEP.

22 **Q. PLEASE EXPLAIN BABCOCK EXHIBIT 10.**

1 A. Exhibit 10 shows the calculation of a \$386,926 adjustment that the Company  
2 proposes to the DEP February 2013 over-collection balance in order to share with  
3 DEP customers certain merger fuel-related savings from DEC. In his testimony,  
4 Company witness Weintraub describes the circumstances under which certain  
5 merger fuel-related savings were accomplished during January through June 2012,  
6 prior to the closing date of the Merger. DEP has reported these savings to the  
7 Commission, totaling \$10.7 million, on its monthly fuel filing "Schedule 11"  
8 report of merger fuel-related savings. Duke Energy Carolinas has not, however,  
9 reflected on its books the sharing of these costs with DEP. Upon approval by the  
10 Commission to adjust the under-collection at June 30, 2013 to reflect the sharing  
11 of merger fuel-related savings achieved during the period prior to Merger close,  
12 DEC will make the appropriate entries on its books to reflect the sharing of the  
13 savings. As shown on Babcock Exhibit 10, the amount to be shared with DEP  
14 South Carolina customers is \$386,926.

15 The Company notes that the amount to be shared covers two months from  
16 the review period of the prior fuel proceeding (January 2012 and February 2012)  
17 as well as four months from the review period of the current fuel proceeding  
18 (March 2012 to June 2012). However, DEP proposes to share these savings  
19 prospectively between DEC and DEP even though a portion of the savings are  
20 related to a prior review period.

21 **Q. WHAT IS THE IMPACT TO CUSTOMERS' BILLS IF THE PROPOSED**  
22 **FUEL AND FUEL-RELATED COST FACTORS ARE APPROVED BY**  
23 **THE COMMISSION?**

1 A. The impact of the proposed fuel rate increase for an average residential customer  
 2 using 1000 kWh per month is an increase of \$3.16, or 3%. This impact takes into  
 3 consideration the expiration of the merger fuel-related savings rider that expires  
 4 June 30, 2013. Impacts for commercial and industrial customers vary by  
 5 customer, but are approximately 4% and 5%, respectively.

	Residential	General Service (non-demand)	General Service (demand)	Lighting
Proposed Total Fuel Factor in cents/kWh	3.015	2.984	2.941	2.941
Existing Total Fuel Factor including Merger Fuel Savings Rider in cents/kWh	2.700	2.678	2.628	2.628

6  
 7 **Q. WHAT ARE THE KEY DRIVERS IMPACTING THE PROPOSED FUEL**  
 8 **FACTOR?**

9 A. A number of factors contribute to the increase in the proposed total fuel cost  
 10 factors for all customer classes. A major driver is a \$5.7 million under-collection  
 11 of fuel costs compared to a \$6.3 million over-collection in the prior fuel filing. In  
 12 addition, the higher coal and nuclear prices as described by Company witnesses  
 13 Weintraub and Culp, respectively, as well as higher sales, contributed to the fuel  
 14 rate increase. Higher sales result in more frequent operation of DEP's higher cost  
 15 generating units. The fuel rate increase is offset by increased generation at  
 16 favorable natural gas prices from present and future combined cycle facilities at  
 17 Lee CC and Sutton CC, respectively, plus the benefits of joint dispatch of the  
 18 combined portfolio of DEC and DEP resources. The two gas combined cycle  
 19 facilities are discussed in greater detail in Company witness Miller's testimony.

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

21 A. Yes, it does.

**DUKE ENERGY PROGRESS, INC**

SYSTEM FUEL COST  
SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E  
TWELVE MONTHS ENDED FEBRUARY 2013

Line			Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12
(1)	Coal	Babcock WP1	\$69,443,383	\$61,328,736	\$74,997,801	\$80,049,544	\$98,667,483	\$84,889,632
(2)	Oil - Steam	Babcock WP2	1,077,733	764,221	1,693,842	1,425,877	800,225	739,176
(3)	Oil - Turbine	Babcock WP2	266,822	382,464	1,580,411	200,862	40,430	189,952
(4)	Gas - Turbine	Babcock WP3	27,849,999	24,975,657	30,908,433	37,246,417	53,424,841	48,963,144
(5)	<b>Total Fossil</b>		98,637,938	87,451,079	109,180,488	118,922,700	152,932,979	134,781,904
(6)	<b>Nuclear Fuel</b>	Babcock WP4	8,304,837	9,864,715	11,091,929	13,720,885	16,030,460	16,002,377
(7)	<b>Coal Blending Savings</b>	Babcock WP4					(894,146)	(597,213)
(8)	<b>Coal Purchase Savings</b>	Babcock WP4					67,973	138,135
(9)	<b>Gas Savings</b>	Babcock WP4						
(10)	<b>Purchased Power</b>	Babcock WP4	22,234,212	19,611,682	27,267,589	13,668,280	28,511,324	21,419,899
(11)	<b>Off-System Sales</b>	Babcock WP4	(7,923,318)	(9,707,394)	(10,987,538)	(9,295,096)	(30,817,690)	(25,428,407)
(12)	<b>Total Fuel Costs</b>		\$121,253,669	\$107,220,081	\$136,552,469	\$137,016,768	\$165,830,900	\$146,316,695

Line			Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Twelve Months Ended Feb-13
(13)	Coal	Babcock WP1	\$59,211,481	\$59,304,002	\$75,301,205	\$46,769,815	\$42,517,780	\$41,981,268	\$794,462,131
(14)	Oil - Steam	Babcock WP2	1,440,099	1,792,474	1,650,438	795,609	1,609,800	1,797,329	15,586,823
(15)	Oil - Turbine	Babcock WP2	50,856	47,373	326,466	1,113,386	1,232,770	658,388	6,090,179
(16)	Gas - Turbine	Babcock WP3	42,387,445	31,330,130	29,611,941	38,209,144	50,022,260	39,519,669	454,449,080
(17)	<b>Total Fossil</b>		103,089,882	92,473,979	106,890,049	86,887,954	95,382,610	83,956,654	1,270,588,214
(18)	<b>Nuclear Fuel</b>	Babcock WP4&5	13,964,145	16,059,502	14,805,882	15,860,926	16,121,580	14,050,613	165,877,852
(19)	<b>Coal Blending Savings</b>	Babcock WP4&5	(511,851)	(1,448,317)	(1,297,567)	(1,260,522)	(793,042)	(1,219,732)	(8,022,390)
(20)	<b>Coal Purchase Savings</b>	Babcock WP4&5	278,584	(112,732)	(944,343)	1,330,768	(218,373)	466,556	1,006,568
(21)	<b>Gas Savings</b>	Babcock WP4&5				(1,946,781)	(794,676)	(701,725)	(3,443,182)
(22)	<b>Purchased Power</b>	Babcock WP4&5	22,060,890	14,821,183	17,689,646	19,475,056	24,412,711	28,645,776	259,818,249
(23)	<b>Off-System Sales</b>	Babcock WP4	(16,084,036)	(21,947,279)	(18,031,158)	(10,189,458)	(11,478,570)	(8,434,050)	(180,323,994)
(24)	<b>Total Fuel Costs</b>		\$122,797,614	\$99,846,338	\$119,112,508	\$110,157,943	\$122,632,241	\$116,764,092	\$1,505,501,316

**DUKE ENERGY PROGRESS, INC.**

Comparison of Actual Fuel Revenues and Expenses  
SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E  
CUMULATIVE BALANCE AT JUNE 2013

Line	Source	Actual Mar-12	Actual Apr-12	Actual May-12	Actual Jun-12	Actual Jul-12	Actual Aug-12	Actual Sep-12	Actual Oct-12	
(1)	Total Fuel Costs	Exhibit 1	\$121,253,669	\$107,220,081	\$136,552,469	\$137,016,768	\$165,830,900	\$146,316,695	\$122,797,614	\$99,846,338
(2)	Actual SC Retail Sales [KWH]	Babcock WP4	396,639,808	514,387,618	464,171,633	449,470,853	623,416,672	569,826,186	492,151,744	481,428,129
(3)	Total System KWH Sales (Exc. Power Agency)	Babcock WP4	3,840,900,637	3,831,660,908	4,044,374,722	4,354,259,616	5,406,661,486	5,173,094,990	4,543,428,288	3,930,427,447
(4)	SC Allocation Factor	Line 2 / Line 3	0.1033	0.1342	0.1148	0.1032	0.1153	0.1102	0.1083	0.1225
(5)	Revenue Required	Line 4 x Line 1	\$12,525,504	\$14,388,935	\$15,676,223	\$14,140,130	\$19,120,303	\$16,124,100	\$13,298,982	\$12,231,176
(6)	Revenue Billed	Babcock WP4	\$12,063,157	\$15,641,526	\$14,114,233	\$13,629,075	\$16,802,497	\$15,357,367	\$12,932,499	\$12,651,650
(7)	(Over) Under Recovery	Line 5 - Line 6	\$462,347	(\$1,252,591)	\$1,561,990	\$511,056	\$2,317,805	\$766,733	\$366,483	(\$420,474)
(8)	Accounting Adjustments	Babcock WP4	\$0	\$0	\$0	(\$800,000.00)	\$0	\$0	\$0	\$0
(9)	Cumulative (Over) Under Recovery	Prior Mo + Line 7 + Line 8	(\$3,866,657)	(\$5,119,248)	(\$3,557,258)	(\$3,846,202)	(\$1,528,397)	(\$761,664)	(\$395,181)	(\$815,655)

Line	Source	Actual Nov-12	Actual Dec-12	Actual Jan-13	Actual Feb-13	Estimated Mar-13	Estimated Apr-13	Estimated May-13	Estimated Jun-13	Twelve Months Ended Feb-13	
(10)	Total Fuel Costs	Exhibit 1, Babcock WP5	\$119,112,508	\$110,157,943	\$122,632,241	\$116,764,092	\$144,914,042	\$111,193,502	\$104,775,184	\$143,157,925	\$1,505,501,316
(11)	Actual SC Retail Sales [KWH]	Babcock WP4, 5 & 6	471,913,876	452,858,642	570,899,969	504,474,585	474,712,940	493,677,555	478,213,445	566,023,640	5,991,639,715
(12)	Total System KWH Sales (Exc. Power Agency)	Babcock WP4, 5 & 6	4,170,697,791	4,229,785,156	4,782,991,436	4,455,188,312	4,396,486,986	4,006,619,449	3,903,082,937	4,668,126,847	52,763,470,789
(13)	SC Allocation Factor	Line 11 / Line 12	0.1131	0.1071	0.1194	0.1132	0.1080	0.1232	0.1225	0.1213	
(14)	Revenue Required	Line 13 x Line 10	\$13,471,625	\$11,797,916	\$14,642,290	\$13,217,695	\$15,650,717	\$13,699,039	\$12,834,960	\$17,365,056	\$170,634,878
(15)	Revenue Billed	Babcock WP4, 5 & 6	\$12,404,349	\$11,905,125	\$15,007,436	\$13,261,121	\$12,480,106	\$12,968,909	\$12,562,667	\$14,869,441	\$165,770,035
(16)	(Over) Under Recovery	Line 14 - Line 15	\$1,067,276	(\$107,210)	(\$365,147)	(\$43,425)	\$3,170,611	\$730,130	\$272,293	\$2,495,615	\$4,864,843
(17)	Accounting Adjustments SEE NOTE	Babcock WP4 & 5	\$0	\$0	\$0	(\$431,351)	\$0	\$0	\$0	\$0	(\$1,231,351)
(18)	Cumulative (Over) Under Recovery	Prior Mo + Line 16 + Line 17	\$251,621	\$144,411	(\$220,736)	(\$695,512)	\$2,475,099	\$3,205,229	\$3,477,522	\$5,973,137	

NOTE: Feb 13 Accounting Adjustments consist of:  
Review Period Avoided Cost Adjustment (booked Mar13, moved to Feb13)  
**Proposed** Jan12-Jun12 Merger Savings Adjustment  
Total

Babcock WP 5	\$	44,426
Exhibit 10	\$	386,925
	\$	<u>431,351</u>

**DUKE ENERGY PROGRESS, INC.**

SOUTH CAROLINA RETAIL FUEL CASE - DOCKET 2013-1-E  
CALCULATION OF BASE FUEL COMPONENT  
For the Year Ending June 30, 2014

Line

(1) Projected Fuel Expense from July 2013 through June 2014

(2)	Cost of Fuel	Exhibit 4	\$ 1,573,325,605
(3)	System Sales	Exhibit 4	55,213,375 Mw
(4)	Average Cost Per kWh		2.850 cents / kWh
 (5) Revenue Difference To be Collected from July 2013 through June 2014			
(6)	(Over)/Under-Recovery at June 30, 2013	Exhibit 2	\$5,973,137
(7)	Projected S.C. Retail Sales	Exhibit 4	6,599,892 Mw
(8)	Average Cost Per kWh		0.091 cents / kWh
 (9) Base Fuel Cost Per KWH - Projected Period			
(10)	Average Fuel Cost		2.850 cents / kWh
(11)	Revenue Difference		0.091 cents / kWh
(12)	Base Fuel Component		2.941 cents / kWh

**DUKE ENERGY PROGRESS, INC.**

Total Fuel Costs, System Sales and SC Retail Sales for the Billing Period  
SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E

Line		<u>Total Fuel Costs [\$]</u> Babcock Workpaper 6	<u>System Sales [kWH]</u> Babcock Workpaper 6	<u>SC Retail Sales [kWH]</u> Babcock Workpaper 6
(1)	Jul-13	\$161,542,098	5,215,373,955	599,275,340
(2)	Aug-13	\$172,242,848	5,386,264,807	638,309,404
(3)	Sep-13	\$125,790,202	4,916,992,588	604,773,708
(4)	Oct-13	\$119,146,118	4,125,566,247	515,685,131
(5)	Nov-13	\$118,335,402	3,924,484,167	466,065,156
(6)	Dec-13	\$136,781,253	4,605,090,526	523,036,678
(7)	Jan-14	\$141,276,642	5,190,493,452	627,102,943
(8)	Feb-14	\$118,045,601	4,760,240,727	565,324,961
(9)	Mar-14	\$125,279,949	4,359,337,447	513,797,952
(10)	Apr-14	\$99,843,618	4,052,390,681	496,768,318
(11)	May-14	\$110,193,139	3,954,935,725	480,869,652
(12)	Jun-14	\$144,848,735	4,722,204,863	568,883,084
(13)	Total	<u>\$1,573,325,605</u>	<u>55,213,375,184</u>	<u>6,599,892,327</u>

**DUKE ENERGY PROGRESS, INC.**

**SYSTEM ENVIRONMENTAL COST**

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E  
CUMULATIVE BALANCE AT JUNE 30

Line	Source	Actual Mar-12	Actual Apr-12	Actual May-12	Actual Jun-12	Actual Jul-12	Actual Aug-12	Actual Sep-12	Actual Oct-12
(1)	Magnesium Hydroxide and Calcium Carbonate	\$ 101,420	\$ 194,572	\$ -	\$ 205,750	\$ 261,364	\$ (95,879)	\$ 38,364	\$ 663,586
(2)	Emission Allowances	134,944	127,184	190,505	209,851	330,165	263,723	161,212	107,616
(3)	Ammonia, Urea	732,977	603,768	742,734	617,392	880,295	675,174	517,461	518,934
(4)	Limestone, Lime, Hydrated Lime	896,914	690,784	927,997	1,038,982	1,351,559	1,104,859	830,776	1,336,654
(5)	<b>Total Environmental Costs</b>	<b>1,866,256</b>	<b>1,616,307</b>	<b>1,861,236</b>	<b>2,071,975</b>	<b>2,823,384</b>	<b>1,947,877</b>	<b>1,547,813</b>	<b>2,626,790</b>
(6)	Reagent Purchase Savings	-	-	-	-	5,019	11,570	23,020	(5,908)
(7)	<b>Total Off-System Sales</b>	<b>(26,640)</b>	<b>(40,366)</b>	<b>(46,591)</b>	<b>(29,046)</b>	<b>(247,220)</b>	<b>(247,929)</b>	<b>(125,035)</b>	<b>(730,938)</b>
(8)	<b>Total Environmental Expense</b>	<b>\$ 1,839,616</b>	<b>\$ 1,575,941</b>	<b>\$ 1,814,644</b>	<b>\$ 2,042,929</b>	<b>\$ 2,581,183</b>	<b>\$ 1,711,519</b>	<b>\$ 1,445,798</b>	<b>\$ 1,889,944</b>
(9)	SC Retail Sales (kWh)	396,639,808	514,387,618	464,171,633	449,470,853	623,416,672	569,826,186	492,151,744	481,428,129
(10)	<b>Total System Sales (kWh) (Exclude Power Agency)</b>	<b>3,840,900,637</b>	<b>3,831,660,908</b>	<b>4,044,374,722</b>	<b>4,354,259,616</b>	<b>5,406,661,486</b>	<b>5,173,094,990</b>	<b>4,543,428,288</b>	<b>3,930,427,447</b>
(11)	SC Allocation Factor	0.1033	0.1342	0.1148	0.1032	0.1153	0.1102	0.1083	0.1225
(12)	SC Share of Total Environmental Costs	\$ 190,032	\$ 211,491	\$ 208,321	\$ 210,830	\$ 297,610	\$ 188,609	\$ 156,580	\$ 231,518
(13)	Amount Billed to SC Customers	\$ 221,451	\$ 206,142	\$ 212,406	\$ 226,196	\$ 202,387	\$ 195,694	\$ 178,409	\$ 149,301
(14)	(Over) Under Recovery	\$ (31,419)	\$ 5,349	\$ (4,085)	\$ (15,366)	\$ 95,223	\$ (7,084)	\$ (21,829)	\$ 82,217
(15)	Accounting Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(16)	<b>Cumulative (Over) Under Recovery</b>	<b>\$ (398,805)</b>	<b>\$ (393,456)</b>	<b>\$ (397,542)</b>	<b>\$ (412,907)</b>	<b>\$ (317,684)</b>	<b>\$ (324,768)</b>	<b>\$ (346,597)</b>	<b>\$ (264,380)</b>

Line	Source	Actual Nov-12	Actual Dec-12	Actual Jan-13	Actual Feb-13	Estimated Mar-13	Estimated Apr-13	Estimated May-13	Estimated Jun-13	Review Period Twelve Months Ended Feb-13
(17)	Magnesium Hydroxide and Calcium Carbonate	\$ 197,247	\$ 208,127	\$ 259,012	\$ 228,247	\$ 125,643	\$ 300,916	\$ 425,045	\$ 459,053	\$ 2,261,811
(18)	Emission Allowances	130,979	71,536	(2,710)	44,470	33,524	61,567	43,525	37,075	1,769,476
(19)	Ammonia, Urea	724,317	385,195	432,243	385,958	431,124	420,179	343,130	745,728	7,216,448
(20)	Limestone, Lime, Hydrated Lime	1,326,007	808,694	686,305	660,184	635,106	651,122	635,921	1,334,185	11,659,715
(21)	<b>Total Environmental Costs</b>	<b>2,378,551</b>	<b>1,473,551</b>	<b>1,374,850</b>	<b>1,318,860</b>	<b>1,225,397</b>	<b>1,433,784</b>	<b>1,447,621</b>	<b>2,576,041</b>	<b>22,907,450</b>
(22)	Reagent Purchase Savings	44,331	32,242	5,504	12,187	8,534	15,200	15,200	15,200	127,964
(23)	<b>Total Off-System Sales</b>	<b>(544,914)</b>	<b>(164,067)</b>	<b>(63,760)</b>	<b>(17,224)</b>	<b>(4,620)</b>	<b>(17,742)</b>	<b>(11,495)</b>	<b>(35,818)</b>	<b>(2,283,729)</b>
(24)	<b>Total Environmental Expense</b>	<b>\$ 1,877,968</b>	<b>\$ 1,341,726</b>	<b>\$ 1,316,594</b>	<b>\$ 1,313,823</b>	<b>\$ 1,229,311</b>	<b>\$ 1,431,242</b>	<b>\$ 1,451,326</b>	<b>\$ 2,555,423</b>	<b>\$ 20,751,686</b>
(25)	SC Retail Sales (kWh)	471,913,876	452,858,642	570,899,969	504,474,585	474,712,940	511,067,452	493,677,555	478,213,445	5,991,639,715
(26)	<b>Total System Sales (kWh) (Exclude Power Agency)</b>	<b>4,170,697,791</b>	<b>4,229,785,156</b>	<b>4,782,991,436</b>	<b>4,455,188,312</b>	<b>4,396,486,986</b>	<b>4,552,648,562</b>	<b>4,552,648,562</b>	<b>4,552,648,562</b>	<b>52,763,470,789</b>
(27)	SC Allocation Factor	0.1131	0.1071	0.1194	0.1132	0.1080	0.1123	0.1084	0.1050	
(28)	SC Share of Total Environmental Costs	\$ 212,398	\$ 143,699	\$ 157,201	\$ 148,725	\$ 132,766	\$ 160,728	\$ 157,324	\$ 268,319	\$ 2,357,016
(29)	Amount Billed to SC Customers	\$ 158,754	\$ 175,876	\$ 194,864	\$ 186,754	\$ 192,428	\$ 199,202	\$ 148,752	\$ 161,758	\$ 2,308,234
(30)	(Over) Under Recovery	\$ 53,645	\$ (32,177)	\$ (37,662)	\$ (38,030)	\$ (59,662)	\$ (38,473)	\$ 8,572	\$ 106,562	\$ 48,782
(31)	Accounting Adjustments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(32)	<b>Cumulative (Over) Under Recovery</b>	<b>\$ (210,736)</b>	<b>\$ (242,913)</b>	<b>\$ (280,575)</b>	<b>\$ (318,605)</b>	<b>\$ (378,267)</b>	<b>\$ (416,740)</b>	<b>\$ (408,168)</b>	<b>\$ (301,606)</b>	



**DUKE ENERGY PROGRESS, INC.**

SOUTH CAROLINA RETAIL FUEL CASE - DOCKET 2013-1-E  
CALCULATION OF ENVIRONMENTAL FUEL COMPONENT  
For the Year Ending June 30, 2014

Line	Class	Coincident Peak Allocation Factor Babcock WP 9	Share of Projected Costs Line 10	Share of (Over)/Under-Recovery at June 30, 2013 Exhibit 5 Total	Projected July 13 to June 14 SC Retail Sales (kWh) Babcock WP 13	Projected Demand Billing units (kW) Babcock WP 13	Projected Average Environmental Fuel Cost	(Over)/Under-Recovered Average Environmental Fuel Cost	Total Environmental Fuel Cost Component
(1)	Residential	45.37%	\$1,205,513	(\$136,835)	2,184,731,124		0.055 ¢/kWh	(0.006) ¢/kWh	0.049 ¢/kWh
(2)	General Service (non demand)	5.68%	150,855	(17,123)	315,137,044		0.048 ¢/kWh	(0.005) ¢/kWh	0.043 ¢/kWh
(3)	General Service (demand)	48.95%	1,300,769	(147,647)	4,006,973,056	9,102,024	14 ¢/kW [1]	(2) ¢/kW [1]	12.0 ¢/kW
(4)	Lighting	0.00%	-	-	93,051,103		0.000	0.000	0.000
(5)	Total	100.00%	\$2,657,137	(\$301,606)	6,599,892,327	9,102,024			

SC Environmental Cost Projection

(6)	Projected SC Retail Sales from July 13 to June 14	Exhibit 4	6,599,892,327
(7)	Projected Total System Sales from July 13 to June 14	Exhibit 4	55,213,375,184
(8)	Allocation percentage to SC	Line (6) / Line (7)	0.1195
(9)	Projected Environmental Costs July 13 to June 14	Babcock WP 11	\$22,229,873
(10)	SC Allocation of Projected Costs	Line (8) * Line (9)	\$2,657,137

[1] Rate is based on the Demand Billing Units

**DUKE ENERGY PROGRESS, INC.**

Comparison of Estimated Environmental Fuel Revenues and Expenses  
SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E

Line		Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13		
(1)	Estimated SO2 Expense	Babcock Workpaper 11	\$ 85,536	\$ 78,778	\$ 43,290	\$ 26,099	\$ 25,130	\$ 35,223	
(2)	Estimated Ammonia, Urea, Limestone, Lime, Hydrated Lime Expense	Babcock Workpaper 11	2,398,900	2,505,848	1,639,328	1,237,403	1,149,054	1,597,133	
(3)	Estimated Magnesium Hydroxide Expense	Babcock Workpaper 11	505,947	409,750	337,036	293,175	396,734	478,759	
(4)	Estimated NOx Expense	Babcock Workpaper 11	31,590	31,110	18,558	7,306	6,633	9,364	
(5)	Estimated Off-System Sales	Babcock Workpaper 11	(391,144)	(248,729)	(4,908)	(33,383)	(29,600)	(75,174)	
(6)	Reagent Purchase Savings	Babcock Workpaper 11	15,200	15,200	15,200	15,200	15,200	15,200	
(7)	Estimated Total Environmental Expense	SUM	\$ 2,646,029	\$ 2,791,957	\$ 2,048,504	\$ 1,545,801	\$ 1,563,151	\$ 2,060,504	
(8)	Estimated SC Allocation Factor of Total Expense	Exhibit 6	0.1195	0.1195	0.1195	0.1195	0.1195	0.1195	
(9)	SC Share of Total Environmental Expense	Line (7) * Line (8)	\$ 316,280	\$ 333,723	\$ 244,858	\$ 184,770	\$ 186,843	\$ 246,292	
			Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Twelve Months Ended Jun-14
(10)	Estimated SO2 Expense	Babcock Workpaper 11	\$ 26,368	\$ 21,741	\$ 16,949	\$ 14,036	\$ 14,660	\$ 30,050	\$ 417,860
(11)	Estimated Ammonia, Urea, Limestone, Lime, Hydrated Lime Expense	Babcock Workpaper 11	1,605,898	1,346,577	1,158,360	1,019,425	1,035,344	1,879,998	18,573,268
(12)	Estimated Magnesium Hydroxide Expense	Babcock Workpaper 11	413,024	241,830	147,962	213,553	300,916	425,045	4,163,730
(13)	Estimated NOx Expense	Babcock Workpaper 11	22,064	18,376	15,576	12,972	23,189	44,805	241,543
(14)	Estimated Off-System Sales	Babcock Workpaper 11	(35,413)	(30,082)	(24,725)	(13,513)	(26,577)	(435,679)	(1,348,928)
(15)	Reagent Purchase Savings	Babcock Workpaper 11	15,200	15,200	15,200	15,200	15,200	15,200	182,400
(16)	Estimated Total Environmental Expense	SUM	\$ 2,047,140	\$ 1,613,642	\$ 1,329,321	\$ 1,261,673	\$ 1,362,732	\$ 1,959,419	\$ 22,229,873
(17)	Estimated SC Allocation Factor of Total Expense	Exhibit 6	0.1195	0.1195	0.1195	0.1195	0.1195	0.1195	
(18)	SC Share of Total Environmental Expense	Line (16) * Line (17)	\$ 244,695	\$ 192,879	\$ 158,894	\$ 150,808	\$ 162,887	\$ 234,209	\$ 2,657,137

**DUKE ENERGY PROGRESS, INC.**

SOUTH CAROLINA RETAIL FUEL CASE - DOCKET 2013-1-E  
CALCULATION OF TOTAL FUEL COMPONENT  
For the Year Ending June 30, 2014

Line	Class	Cents / KWH				Total Fuel Costs Factor
		Base Fuel Cost Component (from Exhibit No. 3)	Base Fuel Cost Component Increased For RECD	Env. Cost Component (from Exhibit No. 6)	Env. Cost Component Increased For RECD	
(1)	Residential	2.941	2.966	0.049	0.049	3.015 [2]
(2)	General Service (non-demand)	2.941		0.043		2.984
(3)	General Service (demand)	2.941		0.000 [1]		2.941
(4)	Lighting	2.941		0.000		2.941

[1] The environmental rate for these customers is 12 cents per kW as shown on Exhibit No. 6.

[2] RECD factor is .8324% and is calculated on Exhibit No. 9.

**DUKE ENERGY PROGRESS, INC.**

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E  
Revenue Adjustment Factor

**Residential Adjustment Factor**

(1) Billed kWh (12ME 2/28/13)	Per Books	1,907,939,651
(2) Billed RECD kWh (12ME 2/28/13)	Babcock WP 14	<u>317,633,591 (a)</u>
(3) RECD kWh Percent of Total Billed	Line 2 / Line 1	16.6480%
(4) RECD Discount	RECD Discount	<u>5.0000% (b)</u>
(5) RECD Impact (Weighted Discount)	Line 3 x Line 4	0.8324%

***Notes:***

- (a) Energy billed and discounted pursuant to Residential Energy Conservation Discount, Rider RECD-2B.
- (b) Five-percent discount provided under Residential Energy Conservation Discount, Rider RECD-2B.

**DUKE ENERGY PROGRESS, INC.**

SOUTH CAROLINA RETAIL FUEL CASE - Docket No. 2013-1-E  
Revenue Adjustment Factor

		<b>Merger Savings to be received from DEC 1/</b>	<b>PEC SC Allocation % 2/</b>	<b>PEC SC</b>
January	2012	\$ 621,525	12.14%	\$ 75,453
February	2012	684,497	11.61%	79,470
March	2012	520,988	10.33%	53,818
April	2012	512,097	13.42%	68,723
May	2012	460,384	11.48%	52,852
June	2012	548,541	10.32%	56,609
Total		<u>\$ 3,348,031</u>		<u>\$ 386,925</u>

1/ Babcock Workpaper 16

2/ Babcock Workpaper 4